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The Herder–Cultivator Relationship as a Paradigm for Archaeological Origins, Linguistic Dispersals, and the Evolution of Record-Keeping in the Andes

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Introduction

IN THE DOCUMENT PRODUCED BY Paul Heggarty and David Beresford-Jones as the summary text from the first meeting of Andean linguists, archaeologists, and ethnohistorians, at Cambridge University, in 2008 (Heggarty and Beresford-Jones 2009), two explanatory paradigms were presented as possible models to account for long-term relations between archaeological cultures and the origins and dispersal patterns of languages, principally Quechua and Aymara, in the ancient Andes.¹ The first was the argument for a link between the appearance and spread of three, successive ‘horizons’ evident in the material culture record of the Andes and the origin places and dispersal patterns of the principal language groups in the Andes, the latter of which culminated at, or a few centuries prior to, European contact, in 1532. The associations that were hypothesized in that document between archaeological horizon styles and languages were:

<u>Early Horizon</u>	Chavín	Aymara
<u>Middle Horizon</u>	Wari	Quechua
Tiwanaku	Puquina	Aymara

¹ Thanks to Paul Heggarty and David Beresford-Jones for the invitation to the meeting at Cambridge University, as well as for their extraordinary patience, encouragement, and critical comments on this chapter. I alone am responsible for any errors that remain.

<u>Late Horizon</u>	Inka	Following Cerrón-Palomino (this volume), the Inka may initially have spoken Puquina, and later Aymara, but ultimately they were responsible for spreading the QIIC dialect of Quechua (esp.) south from Cuzco. (This would also explain why the interpenetration between Quechua and Aymara is particularly intense between their southernmost varieties.)
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The alternate explanatory model, which I articulated at the meeting in Cambridge in a rather sketchy manner, argued for an intimate and long-term relationship between what were the two dominant language families spoken throughout much of the central Andes at the time of Spanish contact, Aymara and Quechua. Andean linguists agree that intense interactions between the two go far back in their divergence and expansion histories. Where my proposal here differs from that of Heggarty and Beresford-Jones is in which phenomenon we imagine as primarily responsible for driving these contacts between their speakers. Heggarty and Beresford-Jones stress the significance of the ‘horizon’ phenomena as drivers; here I make the case for an alternate model which stresses the overriding significance of the relationships of complementarity.

I begin by noting that it is not my intention to argue explicitly against the first model briefly outlined above (see Heggarty and Beresford-Jones this volume). Support or refutation of that model requires an intimate knowledge of the grammars and the possible historical relationships between the numerous varieties of Quechua and Aymara that existed at the time of contact (see Torero 2002; Cerrón-Palomino 2008), as well as a deep knowledge of the linguistic affiliations of myriad toponyms collected throughout the Andes—neither of which I possess. Instead, my objective here is to present the clearest explanation and strongest rationale in favour of the second of the two models outlined above. The principal data I will draw on are, firstly, mythohistorical² accounts in the colonial Spanish chronicles and documents that attest to intimate and (presumably) long-term relations throughout the central Andes between what are described as lowland agriculturalists and highland pastoralists—the groups known (respectively) as *Huari* and *Llacuaz*. This discussion

² I used the term ‘mythohistory’ in an earlier study (Urton 1990) to refer to accounts of the past contained in the Spanish chronicles and documents from the Andes. As such accounts were first written down (in alphanumeric script) only during the colonial period, as native informants testified in what were radically transformed circumstances, including their clearly perceived need to manage the ongoing processes of change, the historical validity of such accounts cannot be verified. Thus, I view such ‘historical’ testimony as indistinguishable, from the present-day perspective, from accounts otherwise understood to be mythical (e.g. the origin of the Inkas from a cave at Paqariqtambo).

will culminate in a reconsideration of the relevance of the Inka origin myth from Paqariqtambo for the issues at hand. Secondly, as language is first and foremost a medium of communication (i.e. the exchange of information), I will consider the relevance of similarities and differences between two of the principal information-recording technologies known from the pre-Hispanic Andean world—the Wari and Inka khipus—as a basis for evaluating possible links between the makers and users of these two recording traditions and the speakers of a few key Andean languages (especially Puquina, Quechua, and Aymara). The latter will require an evaluation of similarities and differences in the technologies of recording used in the two principal cord traditions. Unfortunately, the path between these two principal topics is anything but direct and will require that we take several diversions along the way.

Before beginning to develop my argument in detail, I will state what I consider to be a principal, or defining, qualification for the conditions that any argument that pretends to account for cultural processes and socio-political relations and dynamics in Andean societies should meet, for as far into the past as archaeologists have attempted to account for such matters, which itself is a matter of considerable controversy (cf. Isbell 1997; Moseley 1999). What I am driving at here is the following. While the descriptive and substantive details that obtain(ed) in different times and places may vary, social and political relations within Andean communities tend overwhelmingly to operate on the basis of complementary asymmetric dualism. This mode of intergroup relations has been argued for archaeologically (Netherly and Dillehay 1983; Burger and Salazar-Burger 1993; Urton 1993; Moore 1995; Parsons et al. 1997), and is explicitly attested to ethnohistorically (Zuidema 1964, 1989; Netherly 1990, 1993; Salomon 1995), ethnographically (Palomino 1970; Urton 1990, 1993; Abercrombie 1998), as well as linguistically (Cerrón-Palomino 2008: 225ff.).

By complementary asymmetric dualism, I am referring to relationships between a pair of social identities—individuals or groups—such as two siblings, *ayllus* (*kinship groups*), moieties, or other entities in which one member of the pair is considered by both to be superior to, and to have precedence over, the other. The dominance of one member of such a pair over the other may be worked out and expressed in a variety of different contexts—for example, upper terrain vs. lower terrain, the head of an irrigation canal system vs. lower down along the canal, priority vs. subordination in a ritual context, etc. In addition to a relationship of dominance/subordination, Terry Turner pointed out in a seminal article several years ago (1996) that such complementary asymmetric relations (in both Amazonian and Andean societies) involve(d) the ‘encompassment’ of the subordinate member by the dominant one. This means that, in circumstances in which the unity (rather than the difference) of the pair is emphasized, that unity will be identified by, and with,

the identity of the dominant member of the pair. Another way to make this point is to say that the dominant member is the ‘unmarked’ category in the relationship—the identity which is taken for granted, and is assumed to encompass, or include, the other member (e.g. ‘man’ as the encompassing, unmarked category in the relational pair man/woman). The subordinate member of an asymmetric pair is the ‘marked’ member, the one which must be cited directly if and when the intention is to identify that member in particular, or to differentiate between the dominant and the subordinate members of a pair. Finally, it should go without saying that, although they hold different statuses vis-à-vis one another, *both* members of the pair are essential to the existence of the relationship; that is, each member of the pair is necessary for the existence and identity of the other. In short, Andean asymmetric dualism is grounded in complementary opposition.

As I noted earlier, complementary asymmetric dualism, while having been argued for archaeologically, has been shown to have been a fundamental feature of sociopolitical relations and organizations in the Andes from colonial times to the present day. As such, I argue, whatever explanation, paradigm, or model is put forward to explain long-term relations between different, interrelated groups in the Andes—whether differentiated economically, politically, ritually, or, I argue, linguistically—ought to accommodate, if not account for, the relations and praxis that would have given rise to and sustained over time complementary asymmetric dualistic community organizations. I will return to this point in the conclusion.

We turn first to consider the relationship between lowland agriculturalists and highland pastoralists.

The ‘Huari’ and ‘Llacuaz’ Identities

All along the spine of the central Andes, from northern Peru southward to the Bolivian *Altiplano* (high tundra), one encounters in documents produced in early colonial times accounts of relationships and confrontations between two different groups of ancient inhabitants who are commonly referred to as *Huari* (or *Guari*) and *Llacuaz* (Duviols 1973). In many such accounts, the Huari are identified as the long-time, aboriginal occupants within a given region. In some instances, the Huaris themselves are considered to have migrated into the area in the distant past, having pushed aside even more ancient peoples. The Huari are usually identified as agriculturalists who inhabit the lower slopes and intermontane valleys of the high Andes, planting corn and other products, often relying on complex systems of terracing and irrigation canals.

Depending on the account, the Huari are said to have originated in Lake Titicaca (along with the Sun), in the lowland Pacific coastal plains, or they were said to be autochthonous to the place(s) where they were found, in colonial times (Duviols 1973: 161). Their principal deity is identified as either the ocean or a stone, called *Huari* (sometimes spelled ‘Guari,’ in documents).³ On the basis of his study of a document containing an account of the principal sanctuary dedicated to the Huari deity, Pierre Duviols (1973: 157) argued that this sanctuary can be associated with the archaeological site of Chavín de Huantar (see also Torero [1974] 2007: 86).

The Llacuazes (also known as *Llaqwash*) are commonly characterized as ‘foreigners’ (Arriaga [1621] 1920: 138). They were highland camelid pastoralists who had recently migrated into an area occupied by Huaris and who, over time, exerted pressure on the Huari agriculturalists, pushing them down the mountain slopes and valleys, away from the most desirable agricultural lands. The principal deity of the highland Llacuazes was *Libiac*, god of thunder and lightning. The *paqarina*, or origin place, of the various Llacuaz populations was said to be at Lake Titicaca, or at another nearby lake, Lake Yarocaca, or at a mountain called Yaro, which is said to have been another name for the great sacred mountain of the central Peruvian Andes, Pariacaca (Duviols 1973: 169–70).

The linguistic affiliation(s) of these two groups is an important aspect of Huari and Llacuaz identity and interaction. This issue is important for us here, since information on their linguistic affiliations might give us an understanding of whether or not, and if so how, relations between Huari and Llacuaz populations might represent late pre-Hispanic consequences of the emergence and dispersal patterns of archaeological cultures and language groups in earlier times. Alfredo Torero wrote cogently on this latter question, laying out a paradigm of relations between ethnic and linguistic groups in the pre-Hispanic Andes. Torero hypothesized that the origin place of Aymara was on the central to south coast of Peru, including the area around Nazca. Torero argued that Aymara was the language of the Middle Horizon Wari (2002: 48). He placed the origin of Quechua just to the north of the Aymara homeland, along the central coast of Peru (2002). He argued that, in the sixth and seventh centuries AD, Quechua began a process of divergence and expansion, giving rise over time to two main branches—Quechua I and II (Torero 2002: 55–8). This was a period of intense interaction between Aymara and

³ In this chapter, I use the spelling ‘Huari’ to refer to that identity group in the Huari–Llacuaz relationship, and I use the spelling ‘Wari’ when referring to the homophonically named archaeological culture/style of the Middle Horizon period (c. AD 500–1000). Maintaining a difference in the spelling of Huari and Wari will become quite useful, as we will find that Wari was probably linked to Llacuaz, rather than to Huari!

Quechua, and Torero notes that, throughout much of the central Andes, the Quechua expansion often came at the expense of Aymara (2002: 51).

As for what is implied on various evidentiary grounds concerning the linguistic affiliation of the Llacuazes, many of these groups claimed that their homeland was in the area of Yaro in the central Andes, east of Lima. This area is probably to be located in a region where there are two small, remnant populations of Aymara speakers (what has been termed Central Aymara) around Yauyos, in the central Peruvian highlands, south-east of Lima. In addition, some Llacuaz groups claimed their homeland was Lake Titicaca. As recounted in various of the Huari/Llacuaz accounts, the Llacuazes appear to have been moving northward from Lake Titicaca up into the central Peruvian Andes, during what would have been the centuries leading up to the formation of the Inka state. While we cannot go deeply into the complicated question of the distribution of different languages spoken around Lake Titicaca, suffice it to say that, while predominately Puquina-speaking during Middle Horizon Tiwanaku times, by the early colonial period the lake was heavily populated by speakers of Aymara (as well as other languages). Thus, colonial era claims by Llacuaz peoples of a homeland in Lake Titicaca may have been tantamount to a claim of Aymara ancestry.

What it is important to recognize for our purposes here—that is, in relation to our attempt to place the Huari–Llacuaz relationship in archaeological and linguistic contexts—is that (assuming Torero’s scenario) the sixth- to eighth-century expansion of Quechua from the central coast of Peru must be seen in relation to, firstly, the fact that much of the territory of the central highlands where (primarily, though not exclusively) Quechua II expanded was Aymara territory, and secondly, the expansion of the militaristic Aymara-speaking Wari peoples of the Middle Horizon period (*c.* AD 600–1000) proceeded at cross-currents to the somewhat earlier Quechua expansion through much of the same territory in the central and south-central Andes. This was the context in which I would situate the emergence of what I argue herein was a long-term (that is, since mid- to late Middle Horizon times) interaction between the groups that came to be identified and recorded in early colonial documents as Huari (Quechua-speaking) cultivators confronted by Llacuaz (Aymara-speaking) pastoralists. Phrased somewhat differently, what I argue is that the expansion of Aymara-speaking Wari peoples through the central Peruvian highlands over the period from *c.* AD 600–1000 was the central dynamic that explains later population movements that saw confrontations between these Aymara-speaking peoples and pre-existing populations in settlements throughout the central Andes. In this scenario, some such ‘pre-existing populations’ would have included those who came to be identified (in colonial documents) as lowland Quechua speakers. This hypothetical reconstruction would imply that local Quechua-speaking populations, who came to

be known as ‘Huaris,’ were being encroached upon by Aymara-speaking Llacuazes, descendants (oddly enough) of the Middle Horizon Waris.

We will return to these matters later, when we discuss the place of Puquina, Quechua, and Aymara in relation to the linguistic affiliations of the Inkas, over the period from the Late Intermediate (*c.* AD 1000–1450) to the Late Horizon (*c.* AD 1400–1532).

The Archaeology of Huari/Llacuaz Settlements?

We should consider for a moment how an encounter such as that surmised above would manifest itself in the archaeological record. Here, we can profitably draw on the results of Parsons, Hastings, and Matos M.’s insightful and highly informative study of settlements in the Tarama-Chinchaycocha region of the central Peruvian highlands, from the Middle Horizon through to the Late Intermediate Period (Parsons *et al.* 1997). In their study, Parsons *et al.* posit from the outset the coexistence in the central Andes over a long time period of two main economic traditions, first, camelid herding in the high, puna grasslands, and second, the cultivation of tubers, cereals, legumes, and cucurbits in the intermontane *qhichwa* valleys. Access to both of these economic zones was essential for highland subsistence. However, rather than each group dispersing its members over these two ecozones, Parsons *et al.* suggest that their settlement and artefact studies show that these areas were populated by different groups of peoples. Interaction between the groups appears to have occurred at several special function (e.g. storage and ceremonial) sites throughout the region. Drawing on ethnographic and ethnohistoric accounts, the authors suggest that such interactions may often have taken the form of ritual battles performed either at neutral settlement sites, or in open, unoccupied territories separating the two zones. They suggest that such encounters had all the hallmarks of the kinds of confrontations, including ritualized warfare, between moiety groups reported in the ethnohistoric and ethnographic literatures (1997: 322). The sites for such encounters, whether built structures or open spaces, as well as a variety of walls and other special function constructions found in the spaces between the herder and cultivator settlements, may represent settings for the integration of these groups into larger (internally differentiated) unities.

Interestingly, Parsons *et al.* found that half of the Late Intermediate Period settlements in the Tarama-Chinchaycocha region occur in closely spaced pairs composed of a herding settlement linked to an agricultural settlement (1997: 328). The authors speculate in their conclusions that the evidence for close interaction between herders and cultivators may represent an accommodation by peoples in the region to the forms of integration that

were previously (i.e. in the Middle Horizon period) performed by a centralized state. In such a setting, mutual reliance between the two groups would have provided the means for distributing the resources of the two zones to populations in both (1997: 337). From my reading of their article, I do not think it is a far stretch to suggest that what the authors describe is an archaeological manifestation of relations between Huari (agriculturalist) and Llacuaz (herder) groups of the type that are so well documented in the colonial literature (Parsons *et al.* 1997: 322 themselves cautiously make this comparison).

To state the argument of this chapter explicitly in relation to the above overview and summary of an exemplary study focusing on the region and issues at hand, I take the Huari–Llacuaz relationship to be a formulation in the early colonial context of the paradigmatic relation of complementary asymmetric dualism that characterized societies throughout the Andes from long before the time of the Spanish conquest (how long before is still unclear) to the present day. This relationship is often formulated in terms of the pair *Hanan* (upper) and *Hurin* (lower), which together form the two halves of a unified economic, political, and ritual organization. This claim is not new (e.g. see Parsons *et al.* 1997 and Zuidema 1962). What will be new—if these arguments can be sustained—are the attempts herein to link this asymmetric relationship to long-term patterns of interaction between the speakers of different languages (especially Aymara and Quechua), on the one hand, and to different types of recording systems, on the other.

As will be evident from the above overview of what is a very complicated archaeological and linguistic picture, there are a number of questions concerning the identities of different groups of peoples, as claimed in the literature from conquest times to the present day, that must be sorted out in order to get to the bottom of the questions we are concerned with here: who—in ethnic and linguistic terms—were the Huari and Llacuaz? And what, if anything, might the relationship between these two groups, as depicted in colonial mythohistories, have had to do with archaeological and linguistic origins and dispersals in the central Andes? A major conundrum is: did the Huaris about whom we have been speaking, in terms of the relationship between Huari and Llacuaz, have any special connection with, or link to, the archaeological culture whose name has been spelled variously Guari, Huari, Wari? As we will see below, in a somewhat inconvenient phonic misalignment, it appears that the (archaeological) Wari identity was linked to the Llacuaz, rather than to the (homophonically named) Huari!

An Interlude: Archaeological and Ethnic Huaris/Waris

Where did the name Wari, as applied by archaeologists to a culture dating between AD 600 and 1000, come from?⁴ What is widely considered to be the first reference to the site that would come to be known as Wari, the capital of the Wari state, is Pedro de Cieza de León's description of a site he visited, in 1548, which he called Viñaque. Cieza's description is interesting for our purposes.

The greatest river [of those near Guamanga, modern Ayacucho] is called Viñaque, where there are some large and very ancient buildings, which, without doubt, because of their weathered and ruinous condition, must have lasted through many ages. Questioning the neighbouring Indians as to who built that ancient site, they answer that it was other peoples bearded and white like ourselves, who, a long time before the rule of the Incas, are said to have come to this region and established their residence in it. And in regard to these and other ancient buildings in this country it seems to me that their plan is different from those which the Incas built or ordered built, for this building was square and Inca buildings are long and narrow. There is also a story that some writing was found on a stone slab of this building; this is a matter which I do not affirm any more than I deny that in my opinion some people might have come here in ancient times with the skill and ability to do these things and others which we do not see.

(Cieza, *Crónica del Perú*, 1853: ch. 87, p. 434; cited in Rowe et al. 1950: 120)

Interestingly, Cieza does not record the use by his informants of the name Wari for the buildings or their former occupants, encountered at the site. A later student of the archaeology of the region, García Rosell, claimed that the site Cieza knew as Viñaque began to be referred to as 'Huari', beginning in 1888 (Rosell does not give a reference for his assertion; see Rowe *et al.* 1950: 121). Returning to Cieza's account, he states that his informants identified the original inhabitants of the site as migrants who moved into the area before the time of the Inkas. Finally, the explicit reference in Cieza's account to the existence of some ancient form of writing at the site is curious but too vague to offer much of interest for our later discussion of record-keeping.

The first person to assign the name 'Wari' (with that spelling) to the central Andean archaeological site and culture in question appears to have been Julio C. Tello. As Rowe *et al.* (1950: 121) recount the story, Tello became aware of the site that he eventually called Wari from an illustrated article by

⁴ For the discussion that follows, I offer sincere thanks to Bill Isbell, who, when I sent him an email inquiring about this matter, sent a long, thoughtful, and very helpful reply. In particular, Isbell alerted me to the material relating to Cieza's account of his visit to Viñaque and to Tello's early work at the site.

Luis A. Gamio, in the newspaper *El Tiempo* of Lima, on 2 October 1929. Tello subsequently visited the site, in August 1931, at which time he made a collection of sherds, which he deposited at the Archaeological Museum of the University of San Marcos (Rowe *et al.* 1950: 121). From that time forward, the site Tello dubbed 'Wari' became of increasing interest to archaeologists, some of whom spelled the name of the site Huari, others Wari. There now exists a vast literature on Huari/Wari culture as it was connected (presumably) to the site originally visited by Cieza, in 1548. The point is this: in none of the literature that I have reviewed is an argument made linking the archaeological site of Huari/Wari to the Huari (i.e. those of Huari and Llacuaz fame). The identification may have come from some local informant, who could have attributed the name to the site as a way of assigning it to ancestral populations of the region. However, as to any relevance the assignation of that name might have for the identity of the peoples who created and carried out of the central Andes the Middle Horizon Wari culture, nothing definite can be said.

I will end this brief review by noting that Parsons *et al.*'s study of settlements in the Tarama-Chinchaycocha region is, in fact, premised on the notion that the complementarity between herder/cultivator settlements, which they posit was characteristic of the Late Intermediate Period, emerged at that time as a result of the loss of integrative capacities and functions previously provided by the Middle Horizon Wari state. As suggested earlier, Torero and Cerrón-Palomino have argued that the (archaeological) Wari were Aymara speakers. Thus it would seem that if the Parsons *et al.* interpretation of the settlement patterns in the Tarama-Chinchaycocha region is accurate, then the Huari-Llacuaz connection may have characterized connections between (Aymara-speaking) herder Llacuaz populations and (Quechua-speaking) Huari cultivator populations, a relationship that may date no earlier than around the break-up of the Wari state at the end of the Middle Horizon.

Thus, I suggest that the relationship as outlined above offers a precedent for theorizing a pattern of intimate interactions between groups having different economies and cultural profiles, and, in many cases, speaking different languages, that were linked in a complementary manner (probably in terms of economic specialization, as herders/cultivators) and in which one member was considered superior to, or dominant over, the other. Let us examine what I argue represents another expression of this relationship.

Relations Between the Huari and Llacuaz in Light of the Inka Origin Myth

Myths recounting the origin of the Inka dynastic line(s) are well known and widely published (see Urbano 1981; Urton 1990, 1999). The chronicles contain two versions, one beginning in Lake Titicaca, the other centred on a site directly south of Cusco, known as Paqariqtambo ('inn of dawn'). Some versions link these two cycles by claiming that the ancestor of the Inkas, Manco Capac, and his siblings (the 'Hermanos Ayares') originated in Lake Titicaca, from whence they travelled underground to Paqariqtambo; from there, they emerged from out of the earth at a *paqarina* ('origin/dawn place'), the cave of Tambo T'uqu. The ancestors, along with various *ayllus* of Tambos, with whom they allied themselves at Paqariqtambo, wandered through the land, in search of fertile agricultural land. Ascending to the top of a high mountain, they viewed a small settlement in what would become their capital, Cusco, in the valley below. From the peak of that mountain, one of the Ayar brothers hurled a golden bar towards the valley. The bar landed in the valley and disappeared in the rich soil. The ancestors took this to be a sign that they had finally arrived at the fertile land they sought and were destined to rule over. They descended from the heights and took control of the city, making it their capital. The existing inhabitants of the valley, the Huaylas, were forced to accommodate the arrival of the Inkas. There followed a long (in mythological time) history of struggle, intrigue, and alliances which resulted in the establishment of Inka rule within the valley.

There are several aspects of the Inka origin myths, both those from Lake Titicaca and those from Paqariqtambo, that are of interest to us here. Firstly, by claiming Lake Titicaca as one of their places of origin, this cycle of myths assigns to the Inkas a territorial identity similar to that commonly ascribed in colonial sources to the Llacuaz. As one of the principal characteristics of the Llacuazes was their identity as camelid herders, it is important to stress that, from the moment of their origin, Manco Capac and his siblings were associated with camelids. In the myth recounted by Sarmiento de Gamboa ([1572] 1942), the ancestors are said to have brought with them from the cave of origin several sacred objects, one of which was termed a *napa*. This was a small, probably silver image of a llama.⁵ It is interesting to note as well that

⁵ As an ethnographic perspective on these matters, I would note that when I carried out two years of fieldwork in Paqariqtambo, in the 1980s, I went with friends on various occasions to inspect the supposed cave of origin, located near the town. At the cave, people pointed out to me cloven-hoof-shaped indentations in the stone flooring at the mouth of the cave, which, they said, were the tracks left there when the ancestors brought a llama with them out of the cave. The earth was still soft at that time, and the hoofs of the llama left clear tracks in the stone.

the place in the area of the modern town of Paqariqtambo that in the 1980s (see Urton 1990) was identified as the Inka origin place of Tambo T'uqu—i.e. the rock outcrop known locally as Puma Urqu—is located within the home territory of a Paqariqtambo *ayllu* called *Carhuacalla*. As Cerrón-Palomino (2001: 424) notes, *carhua* is an Aymara term for 'llama'. The *napa* was not the only object the ancestors took with them from the cave of origin that indicated a link to the high-altitude puna terrain. In addition, they also brought seeds of the quinoa (*Chenopodium*) plant. Quinoa, sometimes called a 'pseudo-cereal', is one of the few such grain-like plants that can be grown at high altitudes in the Andes. Thus, like Llacuaz populations all along the high puna grasslands of the central Andes, the Inkas were closely related to camelid pastoralism and puna cultivation.⁶

In short, what we see in the Inka origin myth from Paqariqtambo are the identities (e.g. herders/cultivators), as well as the dynamics of the encroachment of highlanders into lowland terrain, that are the hallmarks of mythohistories of Huari–Llacuaz relations found elsewhere throughout the central Andes.

Cusco as a Site of Cultural and Linguistic Interactions

But the question must be asked, what does the above recounting of Inka mythohistory have to do with the central problem we are concerned with here—the relationship between archaeological cultures and language origins and dispersals? Can it be claimed, for instance, that the Hermanos Ayares and their local, highland allies at Paqariqtambo might have been speakers of Aymara, Quechua, or, as Cerro-Palomino argues (this volume), a third language, namely Puquina? What about the possible linguistic affiliation(s) of the Allcahuizas and Huaylas, whom the Inkas displaced within the valley of Cusco? Here, we must rely on hints and some considerable amount of speculation, as we do not know with absolute certainty the answers to these questions.

The archaeology of the Cusco Valley and surroundings is becoming increasingly better understood, thanks to a series of projects carried out beginning in the early 1980s (e.g. Bauer 1992; McEwan 2004 and this volume; Covey 2006). It is clear that there was a significant concentration of late Middle Horizon Wari sites in the Cusco area, particularly to the south and

⁶ Alfredo Torero also suggested that the 'Hermanos Ayares' may have been a southern Andean manifestation of Llacuaz encroachment into lowland (i.e. *queshwa*) Huari space (Torero [1974] 2007: 90).

east. Bauer reported from his survey and excavations at Mawkallaqta that the site—which has long been understood to have been the probable original location of Paqariqtambo and Tambo T'uqu in Inka times—contains Wari ceramics. In fact, there is evidence not only of Wari but also of Tiwanaku presence in the immediate Cusco area, during the Middle Horizon period (see Glowacki and McEwan 1999; Meyers 1999; McEwan 2004). However, merely placing Wari and Tiwanaku peoples in and around the valley does not advance us much, unless we are able to assign one or another language affiliation to the bearers of these different, but clearly related traditions. From work during the past several decades by Torero (e.g. 2002) and Cerrón-Palomino (2008), our understanding of these matters has become considerably clearer.

Cerrón-Palomino presents an argument in this volume to the effect that the language originally spoken by the Inkas when they arrived in the Cusco area was Puquina (see also Torero [1974] 2007: 90). The home territory of this language was the region of Colla located to the south-east of Cusco, around Lake Titicaca. The capital of the Colla kingdom was probably Hatun Colla, on the northern side of the lake (Julien 1983; Cerrón-Palomino 2008). Cerrón-Palomino presents cogent and convincing arguments to the effect that many key terms for identities and institutions in the Inka state—beginning with the name of this lineage itself, Ynga, but including, for example, such critical terms and concepts as *inti* ('sun'), *capac* ('great, rich'), and *roca* (the name of the second Inka king), etc.—were neither Quechua nor Aymara; rather, they are of Puquina derivation. Cerrón-Palomino thinks that the language spoken by one group among the original inhabitants of the Cusco Valley, the Huaylas, was Aymara (that of another local group, the Allcahuizas, could have been Puquina, as *allqa-* is a Puquina root (Torero 2002: 448), although this may have been the name given to them by the Puquina-speaking Inka invaders). Soon after becoming established in the valley, the Puquina-speaking Inkas adopted Aymara as their principal language (Cerrón-Palomino 2001: 427). Although the Inkas continued to use Puquina in certain contexts, the language increasingly took on the status of a 'secret language' (Cerrón-Palomino 1998 2008: 320, and this volume).

As the Inkas expanded from the Cusco region towards the north-west, they increasingly encountered populations of Quechua speakers throughout the region that came to be known as Chinchaysuyu. By the end of the pre-conquest period, the Inkas had taken on the variety of Quechua spoken in the area of Chínchay, on the south-central coast of Peru, as the 'lengua general' of the empire (Torero [1974] 2007: 104), perhaps as a strategic concession to the wide diffusion of that language throughout the central Andes at the time of Inka expansion. Such a scenario, which presumably would have begun during the Late Intermediate Period (c. AD 1000–1450), would have resulted in close interactions between Aymara and Quechua speakers throughout the

central Andes. One question before us is: were the Quechua speakers who were involved in such a (hypothetical) process of linguistic interaction the same peoples who would become known in the colonial literature as ‘Huari’? Furthermore, are we to understand that the Llacuaz peoples, who are described as encroaching on the Huari from the highlands, were local surrogates, or allies, of the Inkas? Certainly it appears that the (mytho-historical) encroachment of the Inkas, from their origin in Lake Titicaca into the Cusco Valley, was exemplary of the Llacuaz–Huari encounters and confrontations recorded in colonial documents all along the spine of the central highlands. In these encounters, the highland pastoralists appear to occupy the dominant position in what we can interpret, without stretching the point too far, as complementary asymmetric relations with lowland (or intermontane) cultivators.

What it is important to stress in summarizing these relations is that, if we are correct in proposing such a long-term (i.e. since late Middle Horizon times) interaction between Aymara- and Quechua-speaking peoples in the relationship between Llacuaz and Huari, this could help explain the linguistic convergence between these two languages often noted by linguists. For instance, speaking of toponyms across the broad stretch of territory from the northern to southern Andes of highland Peru, Cerrón-Palomino has observed that:

the hybrid nature of many of the toponyms studied reveals equally up to what point Aymara- and Quechua-speaking populations were profoundly inter-related, such that, obviously, in order to coin toponyms that shared elements of both languages, it was necessary [for the speakers] to have a command of both, that is to say, there must have existed within the respective territories a generalized bilingualism among the speakers [of Aymara and Quechua]. When Aymara hegemony ceased within the central Andes, due to the influence of Quechua, the processes of coining Aymara toponyms were displaced to territories to the south, including the Altiplano; this explains why we encounter doubled and tripled toponyms, with successive reworkings, over all the central Andes, from approximately Cajamarca to Tacna.

Cerrón-Palomino (2008: 207–8; my translation)

I argue that it was the close interaction over time between (Aymara-speaking) Llacuaz and (Quechua-speaking) Huari populations throughout the central Andes that was the principal force driving the processes of linguistic (i.e. toponymic) hybridization noted in the above quotation from Cerrón-Palomino.

I turn now to another topic—cord keeping—that may help shed some light on my interest in assigning one linguistic affiliation or another to these different groups, at least in and around Cusco.

The Evidence From Record-Keeping

As Brezine and I have discussed in a recent article (Urton and Brezine 2007), there are two principal traditions of record-keeping, based on cord technologies, from the pre-Hispanic Andes. Both traditions consist of spun and plied cotton and camelid fibres. One of these traditions is composed of what is termed a main cord to which are attached multiple, thinner cords, commonly called pendant cords. Pendant cords sometime have second-order, so-called subsidiary cords tied to them. The pendant cords have colourful bands of usually brightly dyed, camelid fibre threads wrapped tightly around the upper *c.* 10–15 cm of the cords. Some samples of this type have simple over-hand-style knots tied into the pendant cords.

The second type of cord technology is characterized by, again, a thick main cord bearing pendant strings. Samples of this type almost never display bands of camelid thread wrapping on pendant cords. Instead, the pendant cords are usually knotted in complex patterns, normally taking the form of arrangements of three different types of knots tied in tiered clusters along the length of the cords. These two cord technology traditions have commonly been attributed, respectively, to the Wari and the Inka. There exist (to my knowledge) only some ten to fifteen so-called Wari khipus, whereas I am aware of around eight hundred Inka khipus. Let me go into somewhat more detail in describing the colourful stacked bands on Wari khipus and the hierarchical patterns of knotting Inka khipus, as these components were apparently some (though not the only) elements that carried information in these two record-keeping technologies.

As for the Wari, ‘banded’ khipus, what we find on the several such samples that I have studied are arrangements of two to four bands, each band usually covering *c.* 1–3 cm of cord. In all cases, adjacent bands are of different hues, and in some cases display geometric designs of differently coloured criss-crossing threads, rendering Wari khipus highly colourful and visually quite complex. As mentioned above, some Wari samples display knots tied into the pendant cords. However, in all cases that I am familiar with the knots are only of the simple over-hand variety (i.e. there are no ‘long knots’ or ‘figure-eight’ knots, as on Inka khipus). The point I want to stress here is that there is no evidence in terms of the structures of Wari khipus that points to the existence of hierarchical arrangements of knots, which are a feature of the pattern of knotting on Inka khipus. As for the age of what has traditionally been referred to as Wari khipus, the author recently had samples tested from three such Wari samples in the collections of the American Museum of Natural History, New York. These dates, which arrived as the author was preparing this chapter for publication, all fall (at 2 sigma calibration) within the period AD 690–970 (SEE APPENDIX). In short, a Middle Horizon age has now been confirmed

for at least a few of the dozen or so samples of such khipus that exist in museums around the world. In terms of the relative dating of samples, two Wari-style khipus were recovered in good archaeological contexts (Urton 2008), in each case indicating an association with the Middle Horizon Wari culture.

As for Inka khipus, these have been well described elsewhere (Ascher and Ascher 1997; Conklin 2002; Urton 2003), so I will be brief in my description here. Khipus are made of spun and plied cotton or camelid fibres. The colours displayed in khipus are the result of the natural colours of cotton or camelid fibres or of their dyeing with natural dyes (i.e. camelid fibre banding is rare). The 'backbone' of an Inka khipu is the so-called primary cord to which are attached a variable number of thinner strings, called pendant cords. Khipus contain from as few as one to as many as 1,500 pendants (the average of some 450 samples studied by the Harvard Khipu Database project is 84 cords). About one-quarter of all pendant cords have second-order cords, called subsidiaries, attached to them. Subsidiaries may themselves bear subsidiaries, and there are examples of khipus that contain up to six levels of subsidiaries. The majority of khipus have knots tied into their pendant and subsidiary strings. The knots, generally of three distinct types (called single knots, long knots, and figure-eight knots), are usually tied into cords in clusters on different levels, in what has been shown to have been a decimal place system of numerical registry (Locke 1923). I have had radiocarbon assays performed on some twenty khipu samples. In all but one case, the calibration to calendar dates (for 95 per cent certainty) have dated the samples to *c.* AD 1460–1650 (Urton 2008). Thus, 'Inka' khipus appear to date towards the latter end of the Inka state, which is usually dated beginning around AD 1400 and ending with the Spanish conquest, in 1532.

But, the reader may be asking him- or herself: what does the above have to do with the questions that concerned us earlier in this chapter? To get straight to the point: I think what is useful for our purpose here is the information in the above descriptions concerning the existence, or lack thereof, of decimal numeration as an important strategy of recording information in these two cord technologies. To repeat: Wari khipus display no evidence of a foundation in decimal numeration, whereas Inka khipus were organized to a high degree around this recording principle. This is relevant because it allows us to raise a potentially important question: to what degree do the principal languages spoken by peoples who most likely were the inventors, producers, and users of these devices—i.e. Quechua, Aymara, Puquina—accommodate (or not) the characteristics of the cord technologies themselves? I would note that there is no obvious way to differentiate among these traditions based on how the respective language users termed the activity of accounting, or record-keeping, by means of knotted cords. Quechua speakers referred to these devices as *khipu* (cf. *<qquipo>* 'knot, or accounting by knots'; González

Holguín [1608] 1952), while Aymara speakers used the term <*chino*> ('the accounts that are signified by knots'; Bertonio [1612] 1984). Unfortunately, none of the glosses of these or related terms in the colonial Quechua and Aymara dictionaries provide technical descriptions of how knot records were made or read (I am not aware of Puquina terms for knotted-cord records). On the other hand, since one of the principal points of differentiation between Wari and Inka khipus is the absence of evidence for decimal numeration in the former and the clear presence of such in the latter, is decimal numeration a feature of any one, or all, of the three languages mentioned above? The Puquina, Quechua and Aymara names for the numbers one to ten are shown in Table 13.1.

As seen in the table, both Puquina and Quechua have independent lexemes for the numbers one to ten; both are decimal-based systems of numeration. In the case of Aymara, we see that there are independent lexemes for the numbers one to five. The number six (*suqta*) is probably borrowed from Quechua (Cerrón-Palomino personal communication, 16 July 2009). As for the numbers seven, eight, and nine, these are compound terms, the first two of which are based on additions to five ($7 = 2 + 5$; $8 = 3 + 5$). Nine is 'almost' (*lla-*) ten. Aymara originally had a quinary, or base-five, system of numeration.

Therefore, in terms of our discussion of Wari (non-decimal) and Inka (decimal) khipus, we could say cautiously that Puquina and Quechua numeration are consistent with, or accommodate, the decimal numeration principle of Inka khipus. I am less inclined to offer such a strong statement linking Aymara with the Wari khipu, as there is no positive form in which to make this connection. For example, if all Wari banded khipus contained five bands, we could identify that as a manifestation of a quinary recording principle,

Table 13.1. Number names in three Andean languages.

Number	Puquina	(Cuzco) Quechua	(Altiplano) Aymara
1	HUKSTU	HOQ	MAYA
2	SO	ISKAY	PAYA
3	CAPPA	KINSA	KIMSA
4	SPER	TAWA	PUSI
5	TACPA	PISQA	PISQA
6	CHICHU	SOQTA	SUXTA
7	STU	QANCHIS	PAQALLQU
8	KINAS	PUSAQ	KIMSAQALLQU
9	CHIQA	ISQON	LLATUNKA
10	SCATA	CHUNKA	TUNKA

Note: Spellings given are respectively as per Torero (2002: 448–56), Cusihamán (1976), and Briggs (1993).

which would perhaps reflect, or accommodate, the quinary numeration system of Aymara. As it stands, I would say that, if we must link any one of the three languages shown in Table 13.1 with the (non-decimal) Wari khipus, I would press for an Aymara attribution, as Aymara and the Wari khipus equally disregard, or simply show no evidence of a foundation in, decimal numeration.

In summary, I would argue for the following construction in linking language groups to types of khipus within the overall context of the succession of archaeological cultures in the central Andes. Firstly, I propose that the principal inventors of cord technologies for the recording of administrative information (e.g. censuses, tribute accounts, and [perhaps] narrative traditions) were Aymara-speaking Wari administrators. The Wari records were based on wrapping colourful camelid threads around cords in stacked bands. Recording was performed by some means of signing values—still opaque to students of the khipus—primarily by means of colour coding. During the Late Intermediate Period, Puquina-speaking peoples (i.e. the Inkas, or their ancestors) began moving into the Cusco area, replacing—or merely following on—the Wari. These Puquina speakers would have come into contact with Wari/Aymara (non-decimal) cord technology. As the state apparatus of these Puquina-speaking Inkas became more formalized and complex, and therefore as record-keeping became increasingly important, the Puquina would have adopted and modified Wari cord technology in the direction of the introduction of decimal numeration, retaining an interest in colour from the Wari tradition but no longer in the form of brightly dyed camelid fibres arranged in stacked bands. As the Inkas expanded out of the Cusco Basin, especially in their movement to the north-east, towards what would become known as Chinchaysuyu, they came into contact with Quechua-speaking peoples, who themselves were bearers of decimal numeration. (It should be noted that the Muchik-speaking peoples of the north coast of Peru also had decimal numeration.) Subsequently, and relatively late in the life of the Inka Empire (as suggested by the radiocarbon dates), decimal-based cord keeping expanded and became a pervasive feature of Inka administration. The fact that relatively few Wari khipus exist today as compared with Inka khipus may be a result of the elimination—i.e. destruction—by the Inkas of the records of their cord-keeping Wari predecessors.⁷

The above hypothesis suggests that wherever decimal-using Inka administrators came into contact with non-decimal-using peoples (e.g. the Aymara populations around and to the south of Lake Titicaca, in Collasuyu), there

⁷ This suggestion was put forward to me by David Beresford-Jones (personal communication, January 2010).

Table 13.2. Radiocarbon ages of samples from Middle Horizon/Wari khipus in the collections of the American Museum of Natural History, New York.

Sample data	Measured radiocarbon age	¹³ C/ ¹² C ratio	Conventional radiocarbon age
Beta—270948 SAMPLE : 41.2/7678 (a) 2 SIGMA CALIBRATION:	1130 +/- 40 BP Cal AD 720 to 740 (Cal BP 1230 to 1210)	-22.1 o/oo	1180 +/- 40 BP
AND	Cal AD 770 to 970 (Cal BP 1180 to 980)		
Beta—270949 SAMPLE : 41.2/7678 (b) 2 SIGMA CALIBRATION:	1100 +/- 40 BP Cal AD 780 to 990 (Cal BP 1170 to 960)	-22.8 o/oo	1140 +/- 40 BP
Beta—270950 SAMPLE : 41.2/7679 2 SIGMA CALIBRATION:	1170 +/- 40 BP Cal AD 690 to 900 (Cal BP 1260 to 1050)	-22.5 o/oo	1210 +/- 40 BP
Beta—270951 SAMPLE : 41.2/7681 2 SIGMA CALIBRATION:	1150 +/- 40 BP Cal AD 720 to 740 (Cal BP 1230 to 1210)	-23.3 o/oo	1180 +/- 40 BP
AND	Cal AD 770 to 970 (Cal BP 1180 to 980)		

Source: Beta Analytic, report date 21 January 2010.

would emerge the conditions for conflict in the form of disjunctions in administrative organizations. Nonetheless, the Inkas persisted in their efforts to implant decimal organization in the political systems of these (non-decimal) Aymara populations of the region—until the Spanish conquest. It is no small irony that the conquerors of the Inkas were not only decimal-using peoples themselves, but that they also bore a recording technology—alphanumeric writing—which eclipsed the khipu as an instrument for record-keeping in the Andes.

Conclusion

What I have attempted in this chapter is to examine critically the Huari–Llacuaz interaction as a possible paradigm for relationships between groups that were foundational to the processes of the evolution of archaeological cultures and language families in the pre-Columbian Andes. The basic pattern

is one of economic complementarity carried on in the context of a differentiation between groups in terms of identity (what is commonly termed 'ethnicity') and, in many cases, language. That the linguistic component of this paradigm is the most difficult part to specify clearly and with confidence is a result of the fact that, unlike material culture more generally, language ordinarily does not leave a material 'signature', at least usually not explicitly so. However, such is precisely what I have argued is incorporated in the Wari and Inka khipus, in which we can perceive evidence for, or the absence of, a particular classificatory and organizational principle: decimal numeration.

As for when the pattern of Huari–Llacuaz interactions documented herein might have begun, I can only speculate. Perhaps its origins go back to Chavin times, with the expansion out of the central Andes of populations carrying a well-defined religious ideology (Burger 1992), which may have put them into conflict with local populations that maintained different traditions and practices. I would more confidently suggest, however, that the paradigm may have emerged during the Middle Horizon with the complex and perhaps cross-cutting movements and interactions among Aymara-speaking Wari, Quechua speakers of various types (i.e. I and II), and the Puquina-speaking Tiwanaku peoples. In the myriad locales where such interactions took place, especially between the more numerous populations (in the central Andes) of Quechua and Aymara speakers, such confrontations would have given rise to the pattern of herders-cultivators which is documented in the colonial literature as that between Huari and Llacuaz.

If Cerrón-Palomino is correct in his argument that the language of Tiwanaku was Puquina and that that of Wari was Aymara, the Middle Horizon version of the 'Llacuaz–Huari' relationship would have formed around an opposition between (respectively) highland herder Puquina speakers interacting with lowland cultivator Aymara speakers. This same relationship would have first entered history—i.e. written history—in the mid-sixteenth-century mythohistorical accounts of the descent of the *Hermanos Ayares* (i.e. the Inkas) into the valley of Cusco from their origin places of Lake Titicaca and Paqariqtambo. Elsewhere, however, this same political-economic relationship, as recorded more generally throughout the central Andes, would have played out (especially with the Inkas' adoption of Aymara) as that between Aymara-speaking pastoralists encroaching on (Quechua-speaking) cultivators. In establishing hegemony across the central Andes, the Inkas increasingly relied on Quechua as the language of administration. Aside from the pervasiveness of the language among successful agricultural populations throughout the central Andes, perhaps an additional reason for the shift towards and increasing reliance on Quechua was a perceived greater administrative efficiency of decimal numeration vis-à-vis quinary numeration.

In sum, I argue that what has long been recognized in the ethnohistorical and ethnographic records as a fundamental relationship of complementary asymmetric dualism between groups, as seen in such relationships as that between Huari and Llacuaz, or between the Hanan and Hurin moieties in Andean communities from colonial times to the present day, has deep roots in the distant past. It is in these structures and relational processes that we should seek the origins and developmental processes of archaeological cultures and languages in the ancient Andes.

References

- Abercrombie, T.A. 1998. *Pathways of Memory and Power: Ethnography and History among an Andean People*. Madison and London: University of Wisconsin Press.
- Arriaga, Pablo José de. [1621] 1920. *La extirpación de la idolatría en el Perú*. Annotations by H.H. Urteaga. Colección de Libros y Documentos Referentes a la Historia del Perú, 2nd series, no. 1. Lima: Sanmartí.
- Ascher, M. and R. Ascher. 1997. *Mathematics of the Incas: Code of the Quipus*. New York: Dover.
- Bauer, Brian S. 1992. *The Development of the Inca State*. Austin: University of Texas Press.
- Bertonio, Ludovico. [1612] 1984. *Vocabulario de la lengua aymara*. Cochabamba, Bolivia: Ediciones CERES.
- Briggs, Lucy Therina. 1993. *El idioma aymara: variants regionales y sociales*. La Paz: Ediciones ILC.
- Burger, R. 1992. *Chavin and the Origins of Andean Civilization*. London: Thames and Hudson.
- Burger, Richard and L. Salazar-Burger. 1993. The place of dual organization in early Andean ceremonialism: a comparative review, in *El Mundo Ceremonial Andino*, ed. Luis Millones and Yoshio Onuki. Senri Ethnological Studies 37. Osaka: National Museum of Ethnology, 97–116.
- Cerrón-Palomino, Rodolfo. 1998. El cantar de Inca Yupanqui y la lengua secreta de los incas. *Revista Andina* 32: 417–52.
- Cerrón-Palomino, Rodolfo. 2001. J.J. von Tschudi y los 'Aymaraes del Cuzco'. *Revista del Museo Nacional, Lima* 49, 417–32.
- Cerrón-Palomino, Rodolfo. 2008. *Voces del Ande: ensayos sobre onomástica andina*. Lima: Fondo Editorial de la Pontificia Universidad Católica del Perú.
- Conklin, William J. 2002. A khipu information string theory, in *Narrative Threads: Accounting and Recounting in Andean Khipu*, ed. Jeffrey Quilter and Gary Urton. Austin: University of Texas Press, 53–86.
- Covey, R. Alan. 2006 *How the Incas Built their Heartland: State Formation and the Innovation of Imperial Strategies in the Sacred Valley, Peru*. Ann Arbor: University of Michigan Press.
- Cusihuamán, Antonio. 1976. *Diccionario quechua Cuzco–Collao*. Lima: Ministerio de Educación/ Instituto de Estudios Peruanos.

- Duviols, P. 1973. Huari y llacuaz, agricultores y pastores: un dualismo prehispánico de oposición y complementariedad. *Revista del Museo Nacional, Lima* 39:153–91.
- Glowacki, Mary and Gordon McEwan. 1999. Pikillacta, Huaro y la gran región del Cuzco: nuevas interpretaciones de la ocupación wari de la Sierra Sur. *Boletín de Arqueología PUCP* 5, 31–49.
- González Holguín, Diego. [1608] 1952. *Vocabulario de la lengua general de todo el Perú llamada lengua Qquichua o del Inca*. Lima: Imprenta Santa María.
- Heggarty, Paul. 2008. Linguistics for archaeologists: a case-study in the Andes. *Cambridge Archaeological Journal* 18, (1), 35–56.
- Heggarty, Paul and David Beresford-Jones. 2009. 'Not the Incas? Weaving archaeology and language into a single new prehistory. *British Academy Review* 12, 11–15.
- Isbell, W.H. 1997. *Mummies and Mortuary Monuments: a Postprocessual Prehistory of Central Andean Social Organization*. Austin: University of Texas Press.
- Julien, Catherine J. 1983. *Hatunqolla: a View of Inca Rule from the Lake Titicaca Region*. Berkeley: University of California Press.
- Locke, L. Leland. 1923. *The Ancient Quipu or Peruvian Knot Record*. New York: American Museum of Natural History.
- McEwan, Gordon. 2004. El Horizonte Medio en el Cuzco y la Sierra del Sur peruano, in *Estudios de Arqueología Peruana*, ed. Duccio Bonavia. Lima: FOMCIENCIAS, 279–309.
- Meyers, Albert. 1999. Los incas: bárbaros advenedizos o herederos de Tiahuanaco?, in *El hombre y los Andes: homenaje a Franklin Pease GY*, vol. II, ed. Javier Flores Espinoza and Rafael Varón. Lima: Fondo Editorial de la PUCP, 525–35.
- Moore, Jerry. 1995. The archaeology of dual organization in Andean South America: a theoretical review and case study. *Latin American Antiquity* 6(2), 165–81.
- Mosely, Michael. 1999. Preposterism: oxymorons of post-modern prehistory: review of W.H. Isbell, *Mummies and Mortuary Monuments: a Postprocessual Prehistory of Central Andean Social Organization*. *The Review of Archaeology* 20(1), 1–11.
- Netherly, P. 1990. Out of many, one: the organization of rule in the north coast polities, in *The Northern Dynasties: Kingship and Statecraft in Chimor*, ed. M. Moseley and A. Cordy-Collins. Washington, DC: Dumbarton Oaks, 461–87.
- Netherly, Patricia. 1993. The nature of the Andean state, in *Configurations of Power: Holistic Anthropology in Theory and Practice*, ed. John S. Henderson and Patricia J. Netherly. Ithaca and London: Cornell University Press, 11–35.
- Netherly, Patricia and Tom Dillehay. 1983. Duality in public architecture in the upper Azña Valley, northern Peru, in *Perspectives on Andean Prehistory and Protohistory*, ed. D.H. Sandweiss and D.P. Kvietok. Ithaca: Cornell University Press, 85–115.
- Palomino Flores, S. 1970. *El sistema de oposiciones en la comunidad sarhua*. Ayacucho: Universidad Nacional de San Cristóbal de Huamanga.
- Parsons, Jeffrey R., Charles M. Hastings, and Ramiro Matos M. 1997. Rebuilding the state in highland Peru: herder–cultivator interaction during the Late Intermediate Period in the Tarama-Chinchaycocha region. *Latin American Antiquity* 8(4), 317–41.
- Rowe, John H., Donald Collier, and Gordon R. Willey. 1950. Reconnaissance notes on the site of Huari, near Ayacucho, Peru. *American Antiquity* 16(2), 120–37.
- Salomon, F. 1995. 'The beautiful grandparents': Andean ancestor shrines and mortuary ritual as seen through colonial records, in *Tombs for the Living: Andean Mortuary Practices*, ed. T.D. Dillehay. Washington, DC: Dumbarton Oaks Research Library and Collection, 315–54.

- Sarmiento de Gamboa, Pedro. [1572] 1942. *Historia de los Incas*. Buenos Aires: Emecé Editores.
- Torero, Alfredo. 2002. *Idiomas de los Andes: lingüística e historia*. Lima: IFEA-Editorial Horizonte.
- Torero, Alfredo. [1974] 2007. *El quechua y la historia social andina*. Lima: Fondo Editorial del Pedagógico San Marcos.
- Turner, T. 1996. Social complexity and recursive hierarchy in indigenous South American societies, in *Structure, Knowledge and Representation in the Andes: Studies Presented to Reiner Tom Zuidema on the Occasion of his 70th Birthday*, ed. G. Urton. *Journal of the Steward Anthropological Society* 24(1–2), 37–60.
- Urbano, Henrique. 1981. *Wiracocha y Ayar: héroes y funciones en las sociedades andinas*. Cusco: Centro Bartolomé de Las Casas.
- Urton, Gary. 1990. *The History of a Myth: Pacariqtambo and the Origin of the Inkas*. Austin: University of Texas.
- Urton, Gary. 1993. Moieties and ceremonialism in the Andes: the ritual battles of the carnival season in southern Peru, in *El mundo ceremonial andino*, ed. L. Millones and Y. Onuki. *Senri Ethnological Studies* 37. Osaka: National Museum of Ethnology, 117–42.
- Urton, Gary. 1999. *Inca Myths*. Austin: University of Texas Press.
- Urton, Gary. 2003. *Signs of the Inka Khipu: Binary Coding in the Andean Knotted-String Records*. Austin: University of Texas Press.
- Urton, Gary. 2008. The Inka khipu: knotted-cord record keeping in the Andes, in *Handbook of South American Archaeology*, ed. Helaine Silverman and William Isbell. New York: Springer, 831–44.
- Urton, G. and C.J. Brezine. 2007. Information control in the palace of Puruchuco: an accounting hierarchy in a khipu archive from coastal Peru, in *Variations in the Expression of Inka Power*, ed. R. Burger, C. Morris, and M. Mar. Washington, DC: *Dumbarton Oaks*, 357–84.
- Zuidema, R.T. 1962. The relationship between mountains and coast in ancient Peru. *Mededelingen van het Rijksmuseum voor Volkenkunde* 15, 156–65.
- Zuidema, R.T. 1964. *The Ceque System of Cuzco: the Social Organization of the Capital of the Inca*. Leiden: E.J. Brill.
- Zuidema, R.T. 1989. The moieties of Cuzco, in *The Attraction of Opposites*, ed. D. Maybury-Lewis and U. Almagor. Ann Arbor: University of Michigan Press, 255–75.

