Rituals of the Past

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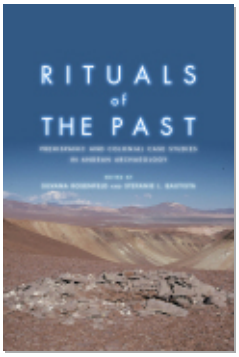

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Mining, Ritual, and Social Memory

An Exploration of Toponymy in the Ica Valley, Peru

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> [Humans] know that although speech alone cannot materially transform nature, it can direct attention, organize insignificant entities into significant composite wholes, and in so doing, make things formerly overlooked—and hence invisible and nonexistent—visible and real. (Tuan 1991:685)

In this chapter we examine the relationship among ancient mining, landscape perceptions, and ritual through the intersection of archaeological and linguistic data. More specifically, we consider contemporary place names in the Upper Ica Valley of southern Peru to be a link between ancient landscapes and past beliefs about mining. We propose that places where ancient mining was performed may have been regarded as special and perhaps dangerous, as recent archaeological evidence of ritual activity in mines indicates. Furthermore, we suggest that these perceptions carried over into the historical period and became embedded in (1) the maintenance of ancient place names or their translation during times of important societal change (such as Inka and Spanish conquest) and (2) the persistence of these beliefs into the historical period, whereby landscape locations were given equivalent names in contemporary languages.

First, we review the kinds of evidence that lead us to make this argument. We provide a general discussion of the practice of place naming and the meanings of

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toponyms. We also explore how mining, as the extraction of the earth's substance for human use, is embedded in Andean attitudes and beliefs toward the landscape. While much information about these practices comes from the ethnographic present, we argue that they are anchored in the pre-colonial past. We do this by drawing from studies that highlight the continuity and transmission of Andean dispositions about landscape, mountains, caves, and the subterranean realm. We argue that changes in political regimes and population relocation caused by Inka or Spanish colonialism are unlikely to have erased general patterns of autochthonous landscape cognition. By examining the language policies under Inka and Spanish domination of the Ica Valley, we provide a context for the persistence of ancient place names and place-name categories. Finally, we evaluate the likelihood that a prehispanic set of beliefs about mining existed that was analogous to the beliefs and practices documented ethnographically. While the study of toponyms yields reliable but imprecise results, we argue that these results tend to support the hypothesis that ancient mining practices had an effect on landscape cognition. Moreover, by examining toponyms in combination with the archaeological data we collected from survey in the Upper Ica Valley during 2010, we suggest that prehispanic landscape cognition had a lasting effect on place names as they exist today.

TOPONYMY AND THE TRANSMISSION OF SOCIAL MEMORY

Here, we underline the major dimensions and attributes of place names and their role in the transmission of social memory. There are several reasons we should at least explore the possibility that toponyms are embedded within ancient attitudes toward landscape and exhibit some components of social memory. At the outset, the attribution of a name is a central part in the process of place making (Tuan 1991) because it reflects people's partitioning of space and the definition of its major characteristics. For this reason toponyms are a ubiquitous and enduring component of human society, communicate information to people who use them, and are a product of both cultural creativity and social consensus. As the "shared remembrance" from which people construct identities (Alcock 2002:1), social memory is inscribed in place names and landscape cognition among many modes of persistence and transmission. Toponyms, for instance, are "constructors of . . . social memory" (Nash 2012:16) and as such constitute a unique point of intersection among language, landscape, cultural aesthetics, and ontological concerns. A review of literature on place names and how they are shared further reveals these themes.

1. *Toponyms are universal in human society*. While claims about the existence of "universals" are regarded with some skepticism, we can still perhaps assert that all humans give names to places. Ever since humans acquired complex cognitive abilities and language, they have anchored their lived experiences in landscape meanings and classifications that required them to name places (Hunn and Meilleur 2010:17). This process generates associative information about those places, if for no other reason than to communicate. People select what is deemed nameable out of the continuous spectrum that is their known world. They assign names to subjectively defined entities and, most important, what the name should refer to or what information it highlights. The semiotic content of these names varies tremendously. The mundane "Round Hill," the commemorative "The Place Where a Historical Event Took Place," the quaint "Greendale," the blissful "Heaven," the threatening "Death Valley," and the evocative "Pulltrouser Swamp" were all named according to some explicit or implicit intent and design. In a comprehensive analysis of place names in the United States, Stewart (1970) distinguishes among ten classes of place-name origins, including those that are based on description, association, and commemoration.[1]

2. *Toponyms are a polysemic source of information to the people who use them*. This is the most fundamental and instrumental quality of place names (Basso 1996). From this perspective place names are a component of landscape knowledge that reveals characteristics of the land, primarily in distinguishing different ecotopes by evoking categories of plants, animals, and other resources found in certain places. They anchor ethnogeography in the description of some sensorial characteristic of certain features—often, but not necessarily, a visual characteristic. This information is transmittable among people and from generation to generation. It also structures spatial cognition by ordering the landscape into a manageable number of shorthand categories (Hunn and Meilleur 2010:18). These toponyms may equally serve as direction, indication, or warning and sometimes evoke myths and histories. Particularly in non-literate societies, the lived landscape gives structure to these stories, and cues contained in the cognitive map assist narration. The landscape, therefore, constitutes a type of mnemonic device akin to a text (Johnson 2007; Thomas 2001:175). Place names, as textual cues, play a central role in communication and social memory.

3. *Toponyms are the product of cultural creativity.* Like other cultural creations (such as art, iconography, and architectural styles), the semiotic content of place names is culturally contingent and their associative nature vastly subjective (Vuolteenaho and Berg 2009). For this reason place names may exhibit patterns of associations among name types or categories that are appropriate for analysis and interpretation (Hunn and Meilleur 2010:15; Johnson and Hunn 2010). Landscape cognition is socially constructed, and place names carry subjective perceptions of landscape. As such, we argue that place names "map out" to some degree past ontologies and resonate in myth, history, worldview, and heritage. Although we may not entirely decipher the exact content of the toponymic discourse, general patterns emerge and may be confronted with other sources of data. In this study we draw upon archaeological and geologic data.

4. *Toponyms are the product of a social consensus.* More often than not, place names grow somewhat organically. They are established in common practice through everyday conversations rather than through the agency of a small number of people. Moreover, politically imposed place names tend to disappear if they are not wholly embraced in daily parlance. In many cases the original place name reappears, suggesting that place names exist and persist mostly by virtue of their vernacular nature (Tuan 1991:688).

5. *Toponyms are resilient.* While political powers may attempt to impose new place names in an act of dominance, people often ignore such place names. Tucker (2011:172) evokes the example of Cuba, which was renamed "Juana" by Columbus and subsequently "Fernandina" by King Fernando. Both names were received with some indifference, and neither came close to impacting the vernacular language. Natives and Spaniards alike quickly reverted to the native name, Cuba, in both unofficial and official documents, and it is still used today. Place names are resilient in part because of their orthodox and collective nature (see Henshaw 2006) and deeply emotional associations (Kearney and Bradley 2009). They are easily inherited from generation to generation and largely go unquestioned, except in exceptional circumstances (Tuan 1991; Tucker 2011). How many average North Americans, for example, know the origin of their town name, the nearby river, or a hill? Yet throughout history, these names have very rarely changed, and the extremely large number of Native American place names Euro-Americans routinely use attests to this.

6. *Toponymy as a component of social memory.* In light of the previously developed points, it emerges that toponymy is a powerful structuring agent of the landscape. It is shared and inherited through narratives that have landscape referents. Toponymy's associative content constitutes a central part of social memory beyond its instrumental quality of orientation and information (Alderman and Inwood 2013:213). Tringham (2000) and others (e.g., Horsfall 2002; Joyce 2000) emphasize that social memory is anchored in physical space and places from houses to landscapes, which serve as mnemonics (Schmidt 2006). As central components of landscape cognition, the role of toponyms exceeds mere description: they anchor oral narratives on visible or imagined landscape features. Toponyms structure landscape maps that ensure the transmission of oral narratives across generations (Henshaw 2006). Toponyms thus reveal the existence of a "past within the past" (see Alcock 2002; Bradley 1991, 2002; Van Dyke and Alcock 2003). In fact, toponymy's demonstrated resilience through social, political, and even linguistic changes situates it as a unique group of data existing in its own distinctive temporal frame. Following Braudel (1969), we can conceptualize time on several levels: the longue durée or "geographical" time that operates at the level of environmental change, the "social" time that registers particular histories of groups of people, and the "individual" time that is more properly conceptualized as a history of actual events (Bradley 1991:210). Toponyms exist in an intermediary temporal space between "individual time" and "geographical time." While the time frame of toponyms generally operates beyond direct social memory (Braudel 1969) because the knowledge associated with place names is often lost, this knowledge can nonetheless be preserved, reproduced in mnemonics: monuments, commemorations, and culturally constructed landscapes preserved in place names. Moreover, we can recover some areas of this knowledge, we argue, from the analysis of those ancient mnemonics.

Toponymy is a mnemonic form of communication, and because of the permanence of landscape, it is precisely one of the main cultural mechanisms of recognition and transmission of knowledge. Schmidt (2006:92) echoes this sentiment when he argues that "social memory linked to place and maintained through storytelling—myth—has an interactive, recursive capacity to reactivate ancient places as renewed centers of ritual power and authority." Basso (1996:55) termed the recursive relationship in which people animate the landscape and create places through experience, memory, and emotion

"interanimation." By examining Ica's place names, we are attempting to better understand some of the meanings held by these place names, which were possibly inherited from ancient times.

MINING, RITUAL, AND LANDSCAPE: AN ANDEAN PERSPECTIVE

The initial interest for this research came from an extended reflection on the relationship among Andean mining, landscape, and ritual. A complete discussion can be found in another article (see Van Gijseghem et al. 2013) but is briefly summarized here. Ample ethnohistorical and ethnographic evidence in the Andes indicates that mining is regulated by common principles of Andean reciprocity and that the extraction of minerals from the earth necessitates payment to chthonic forces (Cobo 1890–95 [1653]:bk. 13, ch. 11, cited in Rowe 1946:246; Ramirez 1994:95). These beliefs and practices take many forms, all of which involve a rich set of ritual practices surrounding mining and invoke the inherent spiritual implications involved with the extraction of subterranean resources. In Oruro, Bolivia, the miners of Potosí invoke a supernatural force known as Tío, or alternatively Supay, who lives in the mines (Bouysse-Cassagne 2005:447; Gil García and Fernández Juárez 2008; Gose 1986; Harris 2000:24; Nash 1972; Taylor 1980). Miners maintain that propitiatory gestures and offerings to Tío are necessary in exchange for high-quality minerals and the safety of the workers. In some narratives Tío is equated with the Roman Catholic Devil and is the consort of the local saint known as the "Virgin of the Mineshaft," who tempers his sedition. Local Aymara historiography suggests that Tío is the incarnation of a prehispanic demon named Tiw, who dwelled in mines and was responsible for natural resources. According to local folklore, only later was Tiw inserted into the Roman Catholic narratives and his name modified as Tío, the Spanish cognate for "uncle" (UNESCO 2001).

There is little doubt that these beliefs are syncretic versions of prehispanic attitudes toward mining, especially considering Andean populations' complex relationship with the earth and mountains (Gose 1986; Nielsen, Angiorama, and Ávila, this volume; Reinhard 1985). Archaeological evidence, while scarce, exists for prehispanic rituals associated with mining (Shimada 1994; Van Gijseghem et al. 2011, 2013; Vaughn et al. 2013 (both sources)). While the details of regional beliefs may have varied, the extraction of the earth's substance requiring compensation in the form of rituals and offerings is absolutely consistent with our understanding of prehispanic cultures. Gose (1986:303) describes mining as the "culminating violation of the most central manifestation of the apu:[2] the mountain itself. It represents a quantum leap beyond

any other productive activity in the intensity of relations between people and *apus*, and constitutes a definite strain on both." It should come as no surprise, then, that mines were endowed with powerful supernatural characteristics and housed spirits that had the potential to be malevolent. Regardless of whether we wish to employ the somewhat tired term *Gates to the Underworld*, historical and ethnographic evidence suggests that prehispanic mines were perceived as liminal spaces embodying the chthonic outside/inside, or light/darkness duality, and that potentially dangerous beings lived within them (Bouysse-Cassagne 2005; Cobo 1890–95 [1653]:bk. 13, ch. 11; MacCormack 1984). We review this evidence below.

ENDURING BELIEFS IN COLONIAL CONTEXTS, LANGUAGE, AND MINING

How likely is it that these attitudes and beliefs remain imprinted on the landscape in toponymy after centuries of imperial and colonial regimes, population replacement, and linguistic change? After all, the impacts of Spanish colonialism on the native peoples of South America were severe. Yet the endurance of indigenous Andean belief and practice in the face of conquest and conversion is well documented (e.g., Andrien 2001; Hill Boone and Cummins 1998). In the Qollahuaya region, Bastien (1978) observed ancestral graves carved into the local mountainside. During the Spanish conquest, Catholic missionaries burned the mummies that had been placed in these graves, leaving behind the empty niches carved in the rock. The symbolic importance of these empty graves remains centuries later, and diviners sprinkle the niches with animal blood and fat during contemporary ritual practices to honor the mountain and their ancestors (ibid.:21). Christian missionaries taught the indigenous residents that baptism was necessary to get into heaven, but as Bastien (ibid.:87) states, they "had little interest in going to heaven; rather, they wished to remain forever on their mountain." The writings and drawings in Felipe Guaman Poma de Ayala's conquest-era manuscript demonstrate a similar pattern: European subjects, even religious officials, are often depicted with subversive elements of indigenous Andean symbolism (Pratt 1991:36; see also Scott 2012). Such examples illustrate the continuity in belief and practice that transcended the prehispanic and post-conquest eras. Given the central role of landscape in the Andean worldview, the continuation of such beliefs likely included attitudes toward landscape and mining.

At the same time, multiple eras of colonialism and political reorganization have dramatically shaped the Andean social landscape. As Lockhart

(1998:41) notes, the traditionally highland-oriented nature of pre-conquest Andean society, combined with the rapid and extensive depopulation of the coast, created a post-conquest Peru that consisted of a Spanish-African coast and an indigenously populated interior. Many Quechua speakers on the coast were displaced highlanders who had migrated to work for the Spanish (Lockhart 1968:217–18). Southern Peru, previously linguistically heterogeneous, was fused into a socially cohesive "oppressed nation" under Spanish colonial rule (Mannheim 1998:384). This has obvious implications for our discussion of the endurance of cultural traditions and attitudes toward mining in the coastal Ica Valley. If there were considerable relocations of indigenous groups, continuity in belief and practice may have been interrupted between the prehispanic and modern eras. Evidence suggests, however, that the more deep and basic elements of worldview were widely shared and persistent in the Andean universe (see Bastien 1978). The presence of pre-Quechua place names on twenty-first-century maps, despite the successive Inka and Spanish conquests, at the very least supports the endurance of some areas of cultural construction.

TOPONYMY AND LANGUAGE POLICIES

While the Inka never made a clear attempt to establish Southern Peruvian Quechua as the administrative language of the empire, Spanish colonial policy sought the establishment of one dominant indigenous language in addition to Spanish (Mannheim 1998:384). Evidence such as the combination of Quechua verb structure with Spanish stems (see the Huarochirí manuscript; Lockhart 1998:43) early in the post-conquest era, however, suggests that indigenous people began linguistically syncretizing Quechua, and potentially other indigenous languages, with Spanish starting shortly after conquest. Syncretization continues in contemporary society, as evidenced by hybrid literacies in rural communities composed of bilingual speakers of Quechua and Spanish (e.g., De La Piedra 2009). The existence of entirely Spanish or Quechua place names, in addition to place names that are syncretizations of Quechua and Spanish, thus does not conflict with the hypothesis that these names have prehispanic roots. They may have been converted to Spanish, Quechua, or both beginning early in the post-conquest era but still retained a meaning that reflects indigenous South Coast worldview and landscape perceptions. Therefore, we suggest that some salient elements of worldview transcend languages and linguistic change.

ENDURING ATTITUDES ON MINES AND MINING: THE CASE FOR CONTINUITY

We should be careful not to blindly assign to prehispanic populations beliefs that may have been post-conquest phenomena (e.g., Shimada 2013; Taussig 1980). Scott (2008:1859–60) underlines how the colonial experience, particularly forced labor in mines, "transformed the subterranean realms in Andean imaginations into spaces associated with evil." It is clear that Roman Catholic symbols, particularly the Manichean good/evil duality, were incorporated in native discourse on the relationship between people and minerals. However, in the foregoing discussion we make a case for the existence of a set of beliefs that is largely indigenous. We suggest that those beliefs have parallels in the prehispanic period, as indicated by the archaeological contexts previously mentioned. While the colonial encounter rendered a view of subterranean spaces as evil, prehispanic mines were seen as no less powerful, embodying the potential for both good and evil in customary Andean cognitive fluidity and flexibility (Gil García and Fernández Juárez 2008:106). Cobo (1890–95 [1653]:bk. 13, ch. 11) offers compelling insights by invoking a native category of sacred places to describe mines, stating that they were *huacas* to which the Andeans prayed and held festivals. Similarly, the Spanish jurist Solórzano y Pereira (1972 [1648]:vol. 1, 277) wrote in the seventeenth century that the mines of Huancavelica were thought to have been inhabited by frightening and demonic apparitions that guarded the mineral wealth preserved underground.

Bastien (1978) outlines several areas of overt continuity and reproduction in an Andean community's ritual observances regarding mountains, conceived metaphorically as biological beings whose mouths are caves. In consequence, caves are the object of various rituals and offerings as the mountain is ritually fed (ibid.:48). The reciprocal relationship is manifest: "if we don't feed the mountain, it won't feed us" (ibid.:xix); a quote that stands in conceptual contrast with the somewhat more foreboding statement recorded in the Potosí ethnography by Nash (1979): "we eat the mines and the mines eat us."

MINING IN THE UPPER ICA VALLEY

We turn to the Upper Ica Valley in southern Peru and argue that collectively, toponyms incorporate ancient attitudes, perceptions, and beliefs about certain landscape characteristics and the communally understood forces they incarnate. Even if they are relatively recent Spanish toponyms, we contend that some of them were affixed to places in accordance with beliefs and attitudes

that have their roots in the prehispanic period, as the "lived" landscape is continually produced and reproduced by human involvement. Based on our conceptual framework, the endurance of these Spanish place names attests to the fact that they were often in agreement with the previous prehispanic meanings. If they were not in agreement, history suggests they likely would have been cast off in favor of the old place names, as was the case with Cuba. In particular, we explore the relationship that exists among ancient mining, ritual, and landscape perceptions as illustrated by place names. While recognizing that the exact meaning of the patterns we are finding is probably forever lost, we maintain that landscape locations where mining would have been possible in the past have often received names that are qualitatively different than the names of non-mining locations. In some cases we have demonstrated that prehispanic mining was not just possible in these locations but actually occurred (see Van Gijseghem et al. 2011, 2013; figure 12.1). The associated place names either have negative, ambiguous, or powerful connotations, or they refer to things or events other than ecological or visual characteristics of the place. Sometimes these place names incorporate verbs. We propose that this phenomenon indicates that the referent is part of a more complex and dynamic narrative than are the names of non-mining places, which more often than not are somewhat mundane (e.g., landform, visual characteristic, indigenous plant/animal resource). In short, we argue that the data support the idea that mining place names are more likely to be metaphorical or allegorical rather than descriptive, and vice-versa. This, we suggest, opens a rare window onto ancient landscape ethnocategories.

While gold is mined today in the Upper Ica Valley, copper remains the principal mineral mined in this region. The natural forces of tectonic uplift, land erosion, and weathering have affected the local cretaceous diorite formations, exposing seams of oxidized material notable for their green and blue colorations. The minerals that accompany copper ore (e.g., carbonates and silicates such as azurite, malachite, and chrysocolla) were probably the first to have been harvested by past populations (Van Gijseghem et al. 2013). We have found evidence of ancient mining dating to the Early Horizon (ca. 300 BC–AD 1), which appears to have intensified during the Late Intermediate Period (ca. AD 1000–1476; Van Gijseghem et al. 2011, 2013). Mining operations today, with a few exceptions, have remained relatively modest and are unlikely to have erased all traces of past activity (see figure 12.2). By contrast, in more economically significant mining regions such as Cerro Verde in Huancavelica, most archaeological evidence for ancient mining is more likely to have been obliterated by recent developments in infrastructure.

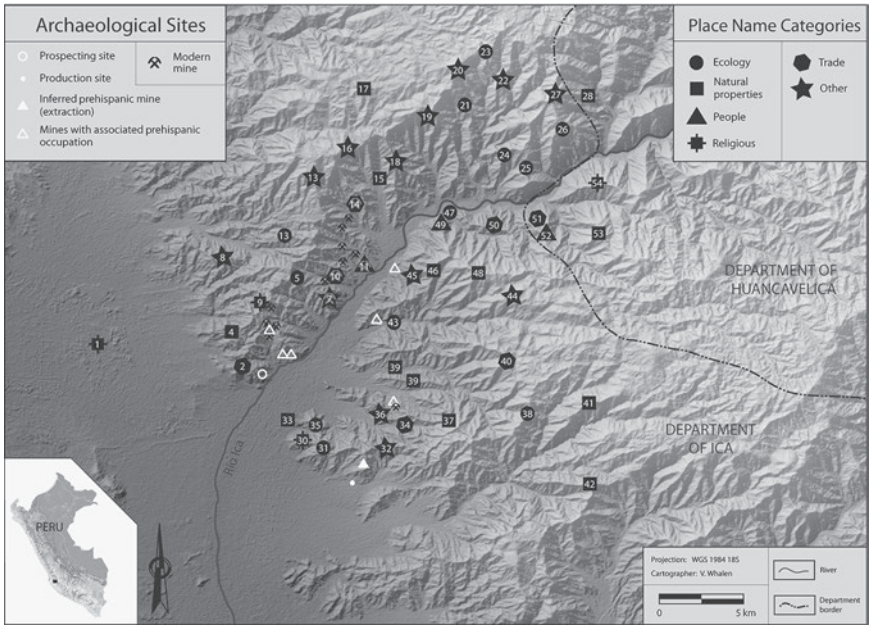

Figure 12.1. *Upper Ica Valley. The numbers associated with places refer to table 12.1.*

UPPER ICA PLACE NAMES

Here we describe the place names of the Upper Ica Valley and their relationship with the region's numerous but generally small-scale copper and gold mines. The majority of toponyms in Ica are Spanish or Quechua. Some place names are syncretizations composed of entire words from both languages (e.g., Jatun Diablo). In addition, two place names are believed to be from the pre-Quechua language spoken in parts of the South Coast, a language referred to as Jaqui/Aru, part of the Aymaran language family (Hardman 1966; Silverman 2002). We considered without distinction the names of localities (e.g., mines, towns, agricultural concessions, quebradas, and mountains and hills) found on various maps of the area,[3] in particular the official maps produced by Peru's National Geographic Institute (Reference: Guadalupe; 1:100,000 scale, Edition 3-IGN, Series J631, Sheet 28L), the online geologic map of Ica produced by INGEMMET, Peru's Geology, Mining, and Metallurgy Institute, and some place names as they appear on Google Earth. The Quechua names were translated and cross-referenced in several dictionaries (see table 12.1 for references).

In general, the existence of Quechua and Jaqui/Aru place names testifies to the relative resilience of place names across time, especially in the case of the

Figure 12.2. *Mina Azurita, a mining complex with prehispanic and post-colonial occupations and architecture, looking northwest, with the Quebrada Llancay Grande at the bottom*

latter since it is no longer spoken and the meanings of those place names are lost. In addition, we argue that some post-conquest Spanish or syncretized names may have been either translations of pre-conquest names or new toponyms given to places in accordance with pre-conquest landscape perceptions. For example, there is a mine in Nasca located in a mountain called Cerro Quitacalzón, meaning "remove underwear" in Spanish. The nearby agricultural concession is called Huarasaca. The only translation we were able to conjure was a syncretic usage of the Quechua term *Huara*, meaning "pants," to which the Spanish word *saca*, meaning "to remove," was affixed. It appears that in this case, by the time the map was created, the Spanish name for the mountain had been adapted from an older native form of the word and syncretized as Huarasaca and that for some reason, native landscape cognition associated this place with the removal of pants. This example, incidentally, also illustrates the relationship we found in Ica between mines and toponyms that evoke ideas not strictly related to the local ecosystem but that seem to incorporate metaphors pointing to associative narratives.

In Ica we collected fifty-four place names. Of these, four are religious and typically a saint's name, seven refer to some trade or tool, twelve refer to the

visual or morphological properties of the place, twelve bear the name of a species of plant or animal, three were named after people or the relationship between people (e.g., Mina Dos Hermanos, which means "two brothers mine" in Spanish), and three could not be translated, including the two Jaqui/Aru names (i.e., Quiojate and Tiojate). Finally, thirteen place names fit in no particular category. They translate as "volcanic fume/small oven," "serpent," "fortune/mercy," "misstep," "great devil," "to work/toil" or "to devastate," "acne/pimple," "parent of an illegitimate child," "shivering/trembling," "rascal," "stitches," "cowardly," and "strangle." The word for "serpent" was included here because of the serpent's privileged status in both Roman Catholic and Andean thought. All place names and translations, language, and spatial association with mines can be consulted in table 12.1.

Although there is no exact correspondence between any name category and an association with mines, the "other" category is overrepresented on the west side of the valley, where most mining occurs (nine out of thirteen and nine out of twelve if we were to exclude Carhuas, whose translation is equivocal). We performed exploratory chi-square tests on several variations of the associations among geographic location, place-name category, and local mining, and none showed this relationship to be statistically significant. We are neither disappointed nor surprised by this. A few reasons led us to doubt the possibility of reaching statistical significance. For one thing, not all ancient place names are expected to have survived, and not all ancient mines are expected to have borne names that are negative or ambiguous. In addition, several modern mining locations do not bear ambiguous or negative names, and it is impossible at this time to know if they were exploited in ancient times. For these reasons and undoubtedly many others, the relationship between name type and mines is muddled and clouded; there is too much interference in the place-name data for us to expect a strong statistical correlation. However, the data highlight the intersection among mining, ritual practice, and landscape cognition if we look at individual cases while examining the region under coarser resolution.

The first six of the place names that belong in the "other" category cited above ("volcanic fume," "serpent," "fortune/mercy," "misstep," "devil," and "to work/toil") are directly associated with mines, some of which are decidedly prehispanic (Van Gijseghem et al. 2011, 2013). Of these, all but one ("to work/toil") are located on the northwest side of the valley. The one exception is the name of a wide, barren quebrada called Llancay Grande, which leads to Mina Azurita (see figure 12.2), a large copper mining complex on which prehispanic material and architecture has been found. Post-conquest architecture

Table 12.1. Toponyms of the Ica Valley. Toponyms assigned to the "other" category are in bold.

#	*Place Name*	*Side*	*Language*	*Associated Mines*	*Topographic Feature*	*Meaning*[a]	*Category*
1	Pampa de Guadalupe	W	Spanish		Pampa	Religious	Religious
2	Cerro Soldado	W	Spanish		Mountain	Soldier	Trade
3	Tiojate	W	Jaqui/aru		Mountain	N/A	N/A
4	Cerro Blanco	W	Spanish	X	Mountain	White	Natural properties
5	Coquimbana	W	Spanish	X[b]	Mines	Cactus	Ecology
6	Quiojate	W	Jaqui/aru	X[b]	Mountain	N/A	N/A
7	**Mina Hornitos**	**W**	**Spanish**	**X**	**Mines**	**Small volcanic fume, small oven?**	**Other**
8	**Cerro Serpiente**	**W**	**Spanish**	**X**	**Mountain**	**Serpent**	**Other**
9	**San Miguel Rescate**	**W**	**Spanish**	**X**	**Mine / quebrada**	**Rescue / recovery**	**Religious**
10	Mina Cuartillos	W	Spanish	X	Mines	Quarts (like pints)	Trade
11	Mina Dos Hermanos	W	Spanish	X	Mines	Two brothers	People
12	Cerro Guanaco	W	Quechua	X	Mountain	Guanaco	Ecology
13	**Mina Fortuna / cerro fortuna**	**W**	**Spanish**	**X**	**Mine / mountain**	**luck, fortune, mercy**	**Other**
14	Casa Blanca	W	Spanish	X	Mine / quebrada	White house	Trade
15	Quebrada Cuesta Vieja	W	Spanish	X	Quebrada	Old slope / incline	Natural properties
16	**Cerro Mal Paso**	**W**	**Spanish**	**X**	**Mountain**	**Misstep**	**Other**

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TABLE 12.1.—*continued*

#	*Place Name*	*Side*	*Language*	*Associated Mines*	*Topographic Feature*	*Meaning*[a]	*Category*
17	Cerro Pedregal	W	Spanish	X	Mountain	Scree	Natural properties
18	**Cerro Suche**	**W**	**Quechua**		**Mountain**	**Suchi = acne/pimple; Suchiy = donation, present; suchu = paralytic, limping; such'u = disabled at the feet; Suchuy = to trip, to drag, failure**	**Other**
19	**Huahuancan-cha**	**W**	**Quechua**		**Place? mountain**	**Wawa = child; Wawani = parent of an illegitimate child**	**Other**
20	**Cerro Chaupican-cha**	**W**	**Quechua**		**Mountain**	**Chawpi = middle, among, center; Chanka Chawpi = gore, gusset (triangular piece of cloth)**	**Other**
21	Sauche	W	Quechua		Mountain	Sawsi = willow	Ecology
22	**Cerro Chiriticancha (?)**	**W**	**Quechua**		**Mountain**	**Chirichi = shivering, trembling**	**Other**
23	Cerro Huamandioja	W	Quechua		Mountain	Waman = falcon; dioja = ? tioja(te?)	Ecology
24	Cerro Guinda	W	Spanish		Mountain	Cherry	Ecology
25	Cerro Huancasa	W	Quechua		Mountain	Wanka = stone	Ecology
26	Cerro Ramadillas	W	Spanish		Mountain	Small branch	Ecology
27	**Cerro Tuno**	**W**	**Spanish**		**Mountain**	**Rascal**	**Other**
28	Pongo	W	Quechua		Place / quebrada	Punku = gate	Natural properties
29	Fribay	E	N/A	X[b]	Locality	N/A	N/A

continued on next page

Table 12.1.—*continued*

#	*Place Name*	*Side*	*Language*	*Associated Mines*	*Topographic Feature*	*Meaning*[a]	*Category*
30	Cerro Santa Rosa	E	Spanish		Mountain	Religious	Religious
31	Cerro Cordero	E	Spanish		Mountain	Lamb	Ecology
32	**Cerro Los Puntados**	**E**	**Spanish**		**Mountain**	**Stitches**	**Other**
33	Cerro Cerrillo	E	Spanish		Mountain	Hill	Natural properties
34	Quebrada La Mina	E	Spanish	X	Quebrada	Mine	Trade
35	Cerro Yunque	E	Quechua		Mountain	Yunka = forest / valley	Ecology
36	Quebrada Llancay	E	Quechua	X[b]	Quebrada	To work, to toil, to devastate	Other
37	Cerros Altos Mina Zurita	E	Spanish	X[b]	Mountain	Zurita = Azurita	Natural properties
38	Cerro Rompe Trapo	E	Spanish	X	Mountain	Plant	Ecology
39	Cerro / Quebrada La Yesera	E	Spanish	X[b]	Mountain / quebrada	Gypsum factory (yeso)	Natural properties
40	Cerro Trapiche	E	Spanish		Mountain	Mill	Trade
41	Cerro Jatun Loma	E	Quechua		Mountain	Long / tall hill	Natural properties
42	Cerro Jatun Ccasa	E	Quechua	X	Mountain	Ice	Natural properties
43	Quebrada Tortolita	E	Spanish	X[b]	Quebrada	Turtledove	Ecology
44	**Loma Carhuas**	**E**	**Quechua**		**Quebrada**	**Karwa = yellow / steinbock / goat / cowardly / recreant**	**Other**
45	**Huarcaya**	**E**	**Quechua**		**Locality**	**Warkuy = strangle / hang up**	**Other**

continued on next page

Table 12.1.—*continued*

#	*Place Name*	*Side*	*Language*	*Associated Mines*	*Topographic Feature*	*Meaning*[a]	*Category*
46	Cerro La Bandera	E	Spanish		Mountain	Flag	Natural properties
47	Huamani	E	Quechua		Locality	Waman = hawk / falcon	Ecology
48	Cerro Loma Redonda	E	Spanish		Mountain	Round knoll, round hill	Natural properties
49	Chiliano Cabrera	E	Spanish		Locality	Name	People
50	La Canteria / Cerro Canteria	E	Spanish		Locality / mountain	Stonework	Trade
51	Zapatero	E	Spanish		Locality	Shoemaker	Trade
52	Cerro Cervantes	E	Spanish		Mountain	Name	People
53	Cerro Buena Vista	E	Spanish		Mountain	Good view	Natural properties
54	Cerro San Cristobal Macho	E	Spanish		Mountain	Religious	Religious

a. All translations were made using a variety of dictionaries, including Cordero Crespo (2010 [1892]), *Webster's Online Dictionary*, and the *Babylon Quechua Dictionary Index*.

b. Prehispanic mine.

that appears to follow a prehispanic architectural convention was also encountered at Mina Azurita, testifying to the maintenance of prehispanic practices and attitudes into the historical period (Van Gijseghem et al. 2011, 2013). Given the absence of agriculture or habitations in this quebrada, we suggest that the "work" in question refers to the only obvious work that would have been possible in the area, which is mining. Excluding Llancay Grande, the other five place names have a decidedly negative or at least ambiguous connotation, especially "devil," "misstep," and "serpent," although even "fortune / fate" is loaded with something ominous.[4] We suggest that all of these meanings, combined with the location of the associated places on the northwest side of the valley where mining now and in prehistory is and was most intense, arise from their spatial association with mines.

Another example includes a small-scale mine near which we have identified prehispanic exploitation called San Miguel Rescate, meaning "Saint Michael" and "rescue," "ransom," or "redemption" in Spanish. This specific aspect of Saint Michael is not a commonly recognized icon in Latin America or elsewhere, as we have found no reference to it. However, in various parts of the Andes, from Bolivia to the North Coast, the figure of Saint Michael leads dancing devils in processions as they are ceremonially cast out of the mines and publicly ridiculed (Harris 2000:63; Millones 1998). Roman Catholic hagiography describes Saint Michael alternatively as the archangel that leads God's armies in the eternal battle against Satan or as the angel of death who wrestles the souls of the deceased from the Devil to carry some of them to heaven (Holweck 1911). It is a decidedly ambiguous figure whose realm is the liminal space between good and evil, light and dark, damnation and salvation. Its associations with devils in Andean festivals, as well as with Bolivian mines and this one in Ica, testify to the equally ambiguous, liminal, and powerful character of mines (see Scott 2012). This is a Spanish, Roman Catholic toponym, but it evokes timeless beliefs about mining and landscape. It appears that Saint Michael was specifically selected from Roman Catholic hagiography because it is one of those infrequent figures that evolve in the ambiguous realm between good and evil.

All of the place names in the "other" category that are associated with mines are Spanish, except the Quechua Llancay discussed above and the syncretized Jatun Diablo (where Jatun = "great, large, notable" in Quechua and Diablo = "devil" in Spanish). This Spanish bias may stem from the fact that mining locations still play a significant role in the local economy of the Ica Valley. As such, mines are perhaps more present in people's routine experiences and are consequently more likely to have been given names in most people's vernacular language.

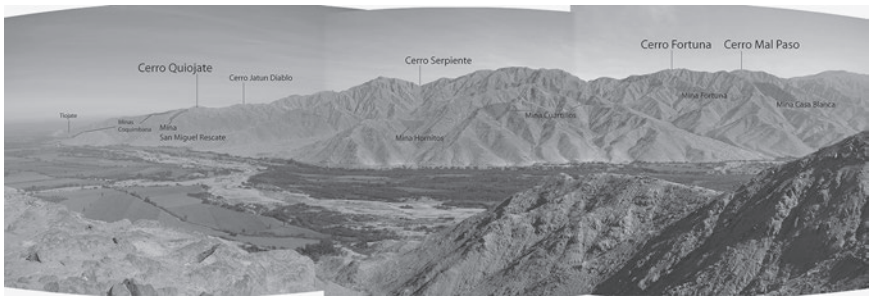

Figure 12.3. *Panoramic ground-level view of the west side of the Ica Valley, with mining locations and prominent landscape features and toponyms*

Perhaps examining these associations from the admittedly Western and modern perspective of the Cartesian mapping of spatial associations also does disservice to the data (see Thomas 2001:173). From a phenomenological perspective, it is from the thin fertile ribbon that is the Ica River that landscape may have to be appreciated (see Johnson and Hunn 2010:2). The valley bottom and narrow cultivation plain are the focus of settlement and daily social experience in all periods of Ica prehistory and history. It is from this perspective that landscape was routinely perceived and experienced. In this light, wherever one stands at the base of the Ica Valley looking toward ancient mining sites, one is most likely to be looking at a landform that bears an ambiguous or negatively charged place name (figure 12.3). Social memory through the bias of place names would associate mining in the mental map with an ambiguous place name: Cerro Serpiente ("serpent mountain"), Jatun Diablo ("great devil"), Cerro Mal Paso ("misstep mountain"). The opposite is not true. A person looking toward a non-mining area is more likely to be looking at something whose name refers to landforms or some ecological character associated with that place: Cerro la Bandera ("flag mountain"), Loma Redonda ("round hill"), Cerro Buena Vista ("good view mountain"), La Canteria ("stonework"). In addition, the phenomenological perspective reveals that on the northwest side of the valley, visible landmarks bear negative or ambiguous names, which is not the case on the southeast side of the valley. We suggest that this is neither a coincidence nor the Andean expression of a type of left/right duality. We are unaware of any examples of good/bad duality expressed on the landscape as different sides of the valley. Instead, we propose that because of the intersection of mineral availability on the northwest side of the valley and mining's symbolic associations, the negatively charged place names reveal ancient perceptions of

landscape. These are powerful places, ambiguously perceived and potentially dangerous, the abode of mysterious forces, and the focus of extraction of precious materials but also of circumspect rituals. Although there are mines on the southeast side of the valley, our survey shows that they are few and far between. Mineral availability is much more pronounced on the northwest side, where virtually every quebrada is marked with modern and ancient mine shafts. These perceptions were carried over into the historical period, and the places were in some cases given Spanish names.

The importance of landscape features in Andean ritual, myth, and memory is well-known (Farrington 1992; Nielsen, Angiorama, and Ávila, this volume; van de Guchte 1999). Either through the existence of huacas, the spatio-temporality associated with Cusco's *ceque* systems (Bauer 1998), and arguably other landscape modifications such as the Nasca lines (Lambers 2006) or sacred mountains united by complex narratives and genealogies, the place and landscape play a central part in the formation of group identity. In non-literate societies, landscape acts as a text on which narratives are inscribed. Narratives are not strictly linear tales. They are inscribed in space, and storytelling requires gestures and references to direction, distance, and sightlines (see Tuan 1991). The physicality of narration is part of its performance as it is reproduced, modified, and reinterpreted through generations. Take, for example, this well-known myth recorded by Rossel Castro (1977) in Nasca, in which landscape elements are central:

> Cerro Blanco is the wife of the highland lord, Illa-kata . . . During a visit to Illa-kata, Tunga, who was the lord of the coast, fell in love with Cerro Blanco and convinced her to leave Illa-kata and go to the coast with him. Illa-kata discovered that he had been betrayed and searched for the fleeing couple. When Tunga realized that he and his loved one were not able to flee fast enough, he covered Cerro Blanco with a layer of corn flour, successfully hiding her from Illa-kata. Illa-kata, in a vengeful rage, created cataclysmic events to destroy all mountains, subsequently turning Cerro Blanco and her corn flour covering into a giant sand dune. Tunga was also transformed. In his case, he became a black iron mountain currently located in Marcona. (Nieves 2007:179)

We thus contend that through the narratives toponyms reflect, such dimensions of landscape cognition act as central components of social memory and shape the ways groups of people produce and reproduce shared histories (French 1995:9).

CONCLUSION

We have explored a potential source of information that could contribute to reconstructions of the past because it is composed of elements that are resilient, evocative, comparable, and idiosyncratic. Toponyms constitute a distinctive window into the past. This research should be seen as an experiment in landscape ethnogeography and an interpretive exercise of a data set that has been given relatively little attention by archaeologists, in contrast to other disciplines. While we believe there is some promise in the systematic analysis of toponyms in archaeological interpretation, our research also highlights its difficulties. We argue that in some instances the meanings behind place names might transcend historical processes such as colonialism, religious conversion, and linguistic change. However, the meaning associated with a certain place in the landscape often does not endure, making the link between modern toponyms and prehispanic attitudes toward the landscape tenuous. Like archaeological remains on a regional scale, a map is a palimpsest, the legacy of different periods fixed in time by the priorities of modernity. In this chapter we have attempted to read this palimpsest and extract from it the legacy of prehispanic landscape cognition and attitudes toward the supernatural character of mines. We have also been as diligent as possible in documenting the likelihood that these sorts of pre-colonial beliefs survived in one form or another through time and were transferred onto the palimpsest.

While the results may not be as robust as we would have wished, they do reveal a qualitative association between mineral-rich areas of the Upper Ica Valley and modern place names, which makes these places stand out from the valley-wide inventory of toponyms. We have found that most modern place names in Upper Ica are generic descriptors out of which it is difficult to extract deeper meaning, although surely these meanings may exist. The referents in these cases at least appear to be fairly straightforward: the place's biotic or physical character. If, as Vuolteenaho and Berg (2009:11) observe, "place names frequently become 'shorthands' for broader cultural meanings," then the "non-descriptive" place names of the northwest side of the valley reflect a perception of these landscape portions or general directions that involves concepts that are not strictly geographical in the Western sense. These referents may be narrative and metaphorical rather than ecological in a strict modern sense, and most of Ica's small-scale mines are found in these places or are visually associated with them. We propose that this association is not a coincidence and that it is related to the supernatural dangers involved with mines and mining. The perceptions and discourses associated with these dangers and the special status of mining places are revealed to us by the perseverance of place names.

What emerges from this exploration of toponymy as a palimpsest for ancient attitudes toward landscape is its unique potential as a data set. Because landscape cognition cradles all human experiences, it should not be divorced from the ritual practice it structures. But achieving an understanding of landscape cognition remains a delicate intellectual exercise that requires the intersection of several lines of evidence. In this chapter we have explored the suitability of toponymy as one form of evidence. It reveals a scale of analysis that links the individual, local, immediate scale of ritual practice that is visible archaeologically with the collective, supra-individual, regional, timeless scale of landscape perception. Regional toponymic analysis holds the potential to reveal some dimensions of the text, character, and narratives in which ritual imperatives may be anchored. In this regard, any attempt at reconstructing landscape cognition reveals less about ritual practice's content than about its context. It attempts to uncover its ontological underpinnings rather than the substance of ritual gestures.

On a more speculative note, the pattern we have observed may reveal ancient landscape classificatory schemes that articulate mundane/extraordinary, lived space/dangerous space, civilized/wild ontological oppositions. Where many sedentary cultures perceive the forest/town duality (Johnson 2000), perhaps the ancient dweller of the Ica Valley had similar ontological categories that hinged upon mining/non-mining, safe/dangerous landforms, and the powerful/quotidian and that these categories are still perceptible today through the heritage of place names.

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NOTES

1. Stewart's (1970) complete classification distinguishes among (1) descriptive: name given as a result of some distinguishing characteristic; (2) association: name related to a descriptive name by association; (3) possessive: based on ownership by a person or group; (4) incident: based on a specific event; (5) commemorative: name honoring a person or an abstract moral value; (6) commendatory: name having a positive association to attract settlers; (7) manufactured: name composed of parts of other names; (8) transfer: name imported from another location; (9) folk-etymology: name modified through language change; and (10) mistake: name resulting from human error.

2. *Apus* are sacred mountains in Andean thought.

3. We are aware of the many caveats in our methodology, not the least of which is that modern maps represent a desperately biased and momentary snapshot of landscape knowledge. We do not know where these compendiums ultimately came from, who the informants responsible for communicating place names to mapmakers were, and whether their own knowledge represented the collectivity's (e.g., we are aware that a hunter, a miner, and a priest may know certain places under different names; feuding families may have derogatory terms for each other's lands, and so on). The identity and agency of the mapmaker's informants is therefore critical because of their role in the "final" crystallization of a potentially fluid and contextual spatial cognition. Another possible source of error lies in the translation of Quechua names. Neither of us is a native Quechua speaker, and the different forms of spelling and pronunciation that exist in Quechua's written forms (e.g., the existence of regional variants and the potential presence of spelling errors within the map itself) contribute to make it impossible to be completely confident in our translations. For the purposes of the present exploration into toponymy, however, we accept that we will deal with these weaknesses, and we have made efforts not to let our hypotheses bias the results of the translations.

4. It is highly tempting to suggest that the (Aymara) Jaqui/Aru toponym Tiojate, also located on the west side of the valley and associated with ancient mining, has its root in the Aymara devil Tiw, discussed above, hispanicized as Tío, the spirit/demon lurking within (Aymara) Bolivian mines. Admittedly, we lack evidence to support the idea that the phonemic similarity is anything other than a coincidence.

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