

## Chapter Eight

# SACRED LANDSCAPE

"The replication of the mountain metaphor across the Andean chain provides insight into the cultures of all Andeans; it lets the Andeans understand themselves and lets us understand them."

—Joseph Bastien, from *Mountain of the Condor*

ARCHAEOLOGISTS HAVE RECENTLY BEGUN to place greater emphasis on investigating the ways people have interacted with the landscapes they perceived as sacred (cf. Ashmore and Knapp 1999; Bender 1993; Hirsch and O'Hanlon 1995; Renfrew and Bahn 2000; Ucko and Layton 1999). As Ucko (1994:xix) noted, "... all societies in the past would have recognized, as do all societies in the present, some features of their landscapes... as sacred." This has especially been the case in the Andes. The Inca culture in particular presents an especially fruitful field for research utilizing an approach focused on sacred landscape. Among other things, the Incas demonstrated its importance through the establishment of *capacocha* ceremonies and state-sponsored pilgrimages to high isolated mountains—of which Lulluallaco is one of many examples.

We know from present-day studies that the Quechua people are very conscious of a landscape that for them is full of meaning. Allen (1988:41) wrote about the Quechuas living near Cuzco that "Every aspect of the topography distinctive enough to be called a landmark in our terms has a specific and individual name and selfhood for the Runakuna [indigenous people]." The

snowcapped peaks are especially sacred, and were so at the time of the Incas (cf. Albornoz in Duviols (1984)). But beyond this, it is clear that the Incas had a precise knowledge of topography—being able to make models of the areas they conquered (cf. Garcilaso 1967 v.1:127).

We have seen that mountains were important in Inca religion, both in the region of Cuzco and in the distant regions conquered by the Incas (cf. Cieza 1977; Cobo 1983; Guaman Poma 1980; Reinhard 1995, 1999b, 2007a). A few examples illustrate just how significant some of them were believed to be. In 1553, the snowcapped mountain Coropuna in southwestern Peru (cf. Figures 1.3 and 8.1) was listed as the fifth most important *huaca* in the Inca Empire by the renowned chronicler Cieza de León (1977:107) (cf. Reinhard 1999b, 2001). Catequil, a deity worshiped on a mountain in northern Peru, dominated a vast area—and some chroniclers claimed it to be one of the most powerful deities in Tawantinsuyu (Agustinos 1918:18–24; Albornoz in Duviols (1984)). Mount Pariacaca (Figure 8.2) was highly venerated by the Incas in western Peru, and was especially renowned for being personally associated with an Inca emperor and for the impressive Inca road that passed by it (Avila in Salomon and Urioste (1991); Reinhard 1987a).



Fig. 8.1. A man stands on an Inca esbwa (ceremonial platform) in the ruins of Achaymarca, with the mountain Coropuna (Peru) in the background (photo 1989).

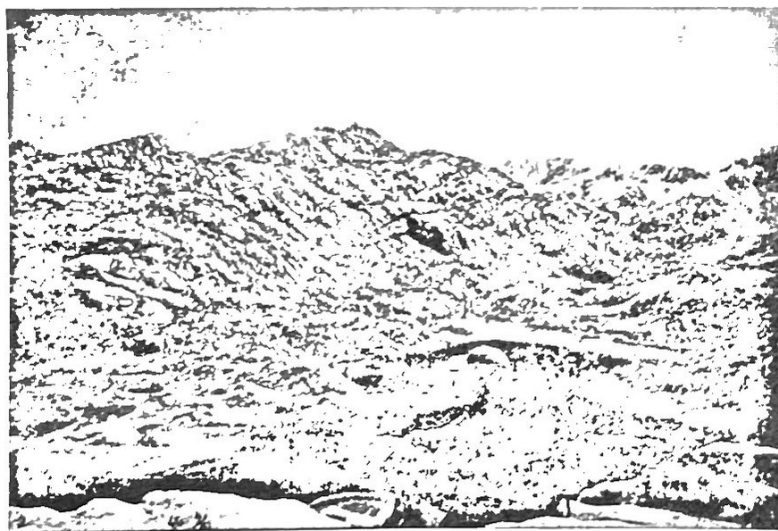


Fig. 8.2. A view over a lake towards the sacred mountain Pariacaca (Peru) as seen from the Inca road

Closer to Cuzco, several snowcapped mountains can be observed after only a short walk above the city. To the north, Sahuasiray [5,720 m (18,766 ft)] and Pitusiray [about 5,056 m (about 16,588 ft)] were among the most sacred places of Antisuyu (Figure 8.3)—one of the four quarters of the Inca Empire (Guaman Poma 1980:243, 248). The snowcapped peak of Ausangate [6,372 m (20,905 ft)] is the highest mountain visible from Cuzco. In the early 1600s, Guaman Poma (1980:248, 253) noted that it was one of the most important *huacas* of all of Collasuyu—another of the four quarters of the Tawantinsuyu. It is still today the most powerful of the traditional deities (cf. Ceruti n.d.a., Reinhard n.d.a., Sallnow 1987) (Figure 8.4).

To the west and northwest of Cuzco lie several peaks, including Salcantay—which dominates the famous site of Machu Picchu (Figures 8.5 and 8.6) and was noted in the 1500s as being highly venerated by the Incas [Albornoz in Duviols (1984), Reinhard 2007a]. Machu Picchu has been found to be situated in the center of sacred mountains that are linked with astronomically significant events relating to the sun's passage (Figure 8.7). Both Machu Picchu and Cuzco can be interpreted



Fig. 8.3. The sacred mountains of Pitusiray and Sahuasiray (Peru) as depicted about 1623 (from Guaman Poma 1980).



Fig. 8.4. Men ascended a glacier east of Cuzco (Peru) in 1985 during the festival of Qoyllur Riti and offered worship to the mountain Ausangate in the distant background.



Fig. 8.5 The location of Machu Picchu (Peru).



Fig. 8.6 View to southeast toward Machu Picchu from the Inca site on the summit of the mountain Sati Miguel

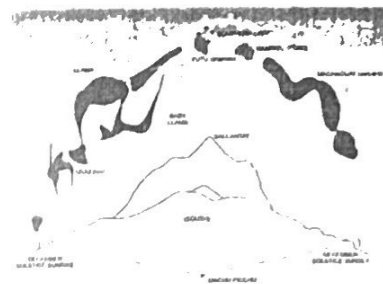


Fig. 8.7 Inca cosmology in relation to the sacred mountain Salcantay near Machu Picchu (*re Rembold 2007, adapted from Urtan 1982*).

as forming cosmological, hydrological, and sacred geographical centers for vast regions (Reinhard 2007a).

Even relatively low mountains close to Cuzco were ranked among places especially sacred to the Incas. For example, 38 km to the southeast and just beyond the end of the Cuzco Valley lies Viracochan—a high hill overlooking the sacred lake of Urcos (Figure 8.8). It rises about 500 m above the sacred Vicanota River, and one of the most important temples for the Inca creator

deity Viracocha was built on its summit (Betanzos 1987:14–15, Molina 1959:56–57; Reinhard n.d. b.).

The low mountains immediately surrounding Cuzco were also considered sacred (cf. Sarmiento 1943 95). Here we will briefly examine only two examples to illustrate the key role mountains played in Inca religion in Cuzco itself. They include the Incas' construction of structures similar to those found on high mountain summits at the periphery of their empire

The temple on the summit of the mountain Huanacauri was described in the mid 1500s by Cieza de León (1977:105) as being only second to the Temple of the Sun in importance. Situated 700 m (2,297 ft) higher than Cuzco, the mountain is visible from the city and can be easily reached in a few hours' walk (Figure 8.9). The main reason so little attention is paid to Huanacauri today is because the summit site was largely destroyed by the Spanish (Figure 8.10). However, it is still widely invoked in present-day rituals for the fertility of crops (cf. Nuñez del Prado 1969/1970:149-150; Reinhard n.d.).

Theories to explain why Huanacauri came to play such a dominant role have all been based on myths referring to the origin of the Incas (cf. Cobo 1983:104). That is, the mountain is thought to have



Fig. 88. The mountain of Virasbochan overlooks the sacred lake of Urcus (Peru).



Fig. 8.9. View to the southeast toward the central plaza of Cuzco, with the sacred mountain Huanacauri (Peru) in the background

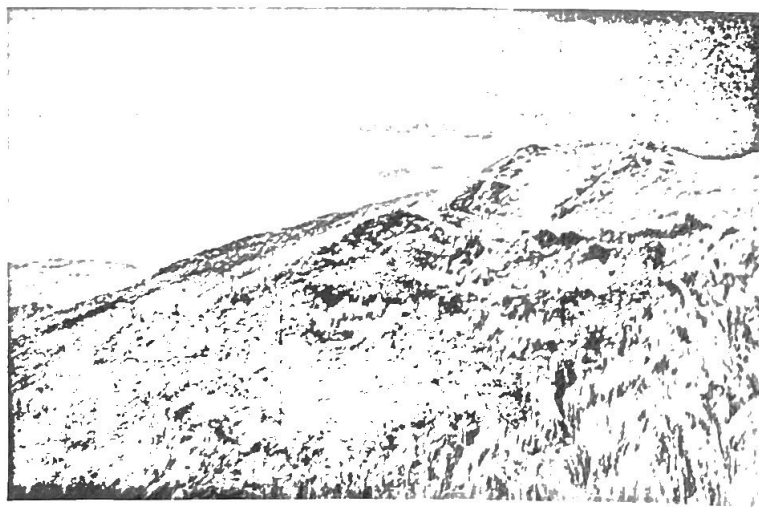


Fig. 8.10. Inca runs likely used to house priests who performed rituals on the summit of Huanacauri in the background (photo 1983)

attained significance because of its association with mythological events involving the original ancestors of the Incas when they came to occupy the Cuzco Valley. Important offerings were made at the temple on its summit, including human sacrifices. The people killed were believed to serve Huanacauri and were regarded by the Incas "like the saints of the Christians" (Cieza 1977:105–106). Reinhard (n.d.c.) has hypothesized that the mountain was incorporated into Inca origin myths because it had already been worshiped before the rise of the Incas. It is the source of water for an important section of the Cuzco Valley, which has been occupied for more than two millennia.

The highest mountain bordering the valley of Cuzco is Pachatusan [4,842 m (15,886 ft)]. A number of legends point to its importance in Inca cosmology, and they include references to human sacrifices having taken place on its summit (Santa Cruz 1968:305). It was one of the six sacred mountains noted by Sarmiento (who called it Pachatopan) in the 1500s (Sarmiento 1943:95). Pachatusan continues to be a powerful local mountain god to the present day (Allen 1988:44; Sallnow 1987:129–130).

Ceremonial sites (artificial platforms and buildings with fine Inca stonework) are situated high on the mountain on its northern and eastern slopes. There is an important ritual site near the summit that is a larger version of similar sites found on mountain summits in the southern part of the Inca Empire (Figure 8.11). In 2004, Fernando Astete and Johan Reinhard conducted excavations at this latter site—finding human skeletal material suggesting that human sacrifices had taken place there (Astete and Reinhard 2003). In short, the Incas worshiped mountains in the immediate center of their empire before (or at the time) they began their expansion to regions far distant. In the southern and western provinces of Tawantinsuyu, thanks to summits of many of the volcanoes being relatively accessible the Incas were able to build ceremonial sites at altitudes never reached before.

We have discussed in general terms the reasons the Incas made offerings on mountain summits, but here we will begin by examining possible factors that might have contributed to one mountain being considered especially sacred—Llullaillaco. Unfortunately, there is little information about religious beliefs in Collasuyu at



Fig. 8.11. A large ceremonial platform (lower left) and other runs near the summit of Pachatusan, Peru in 2002 (archaeologists' campsite at lower right).

the time of the Spanish conquest—and none at all about Llullaillaco. Thus, any interpretation of the reasons a ceremonial center was built on this volcano must be based on our knowledge of Inca beliefs and practices from other parts of the Andes, on the archaeological finds, and on an analysis of the legends and ethnographic data available from the region.

## THE SACRED GEOGRAPHY OF LLULLAILLACO

It is likely that Llullaillaco was worshiped long before the Incas arrived in the region, in that at the time of the Spanish conquest worship of mountains was noted as predating the Incas (cf. Duvols 1984)—and this extended well beyond the limits of the Inca Empire, not to mention being common throughout the Americas. Why, then, have no pre-Inca artifacts been found on Llullaillaco?

It appears that, as in most other pre-Inca cultures, indigenous people in the region were content to worship high mountains from afar. This was probably due to a number of factors, such as the natural difficulties involved in scaling them and a fear of volcanoes being inhabited by a deity (or deities). In addition, the construction of sites leading to and up Llullaillaco involved a significant investment of time and labor—not to mention considerable logistical and mountaineering ability attainable only by a well-organized and determined social group. As we have seen, by placing ritual sites on mountain summits the Incas gained what was in effect a greater control (political, economic, and religious) over the people and land they conquered.

The question remains why the Incas selected Mount Llullaillaco to build a road and structures up to an altitude not even reached by Europeans until some 400 years later.

It is not likely that the mountain was selected only because it is a high peak. For example, an Inca road passed not far from Ojos del Salado—the world's highest volcano with active fumaroles—yet no sign of an Inca presence on the volcano has been found. No evidence of Inca ritual activities was documented on the main summit of Pissis [6,882 m (22,578 ft)]—the second highest mountain in the Americas (cf. Biggar 1996, Ceruti 2004b, Reinhard 1990b)—despite its being located near an area intensively used for Inca ritual purposes (Ceruti 2003c). On the other hand, the Incas did build structures at 6,610 m (21,686 ft) on Mount

Incahuasi close to Ojos del Salado and north of Pissis. Difficulty in the ascent presumably played no role, as Ojos del Salado and Pissis are not much more difficult to climb than Incahuasi (cf. Reinhard 1990b).

We know that the Incas paid special homage to active volcanoes (cf. Murúa 1946:398), and Llullaillaco presumably could have been active—or at least had fumaroles—during the period the Incas entered the region (cf. Rebitsch 1966:60). However, using Ojos del Salado again as an example no sites have been found anywhere on its slopes—in spite of Ojos del Salado likely having had fumaroles during the same time period. In any event, unless a volcano experienced an eruption that directly affected the survival of local inhabitants the presence of active fumaroles would not seem a sufficient reason for the elaborate system of sites and roads as was constructed on Llullaillaco.

The locations and orientations of some Inca structures have been found to be in accordance with the rising and setting points of important celestial phenomena, especially of the sun (cf. Aveni 1981, Bauer 1998, Dearborn and Schreiber 1986, Hyslop 1990). Not surprisingly, some of the structures at high-altitude archaeological ritual centers were also discovered to be correlated with the same astronomical events (Astete and Reinhard 2003, Beorchia 2001a:197–206, Reinhard 2005, 2007a; Reinhard and Ceruti 2006). Our concern here, however, is not with the orientations of single structures but with the possible role astronomical alignments might have played in the placing of a ceremonial site on the summit of Llullaillaco.

Horizon astronomy consists of indigenous people using distant features of the landscape as aids in making astronomical observations (Aveni 1981). This has been found throughout the Andes, as well as among the Incas. When celestial bodies are important due at least in part to their association with sacred mountains on the horizon, we have what might be called a "sacred geographical astronomy" (Reinhard 1988:32). Some mountaintop ritual complexes were situated such that—as seen from lower-lying Inca sites—they were in alignment with the rising and setting of the sun, especially at the equinoxes and solstices. This has opened up the possibility that they were built there for these reasons (cf. Astete and Reinhard 2003, Bauer 1998), as it has been especially documented at Machu Picchu—one of the most famous Inca sites (Reinhard 2007a).

In the case of Llullaillaco, we found it difficult to see how these factors could have played a principal role in its having a ceremonial site on its summit. The nearest

Inca administrative center was located about 200 km to the north—at Catarpe, near San Pedro de Atacama. Llullaillaco was not directly visible from it, but it is from a short distance away on an adjacent hill. The volcano is at an azimuth of about 200 degrees to the south from Catarpe, and therefore it is not in an area of major celestial activity nor aligned with a cardinal direction or with the constellation the Southern Cross—which figured prominently in Inca cosmology (cf. Urton 1981).<sup>1</sup>

One hypothesis to explain ceremonial complexes on mountaintops peripheral to the Incas' political center is that they could have been constructed as a way of establishing boundaries along the edge of their empire (cf. MacCormack 1991:152; McEwan and Van de Guchte 1992:371; Schobinger 1999:18). However, this appears less likely—given that the Incas built other sites and made offerings on mountains relatively close to Llullaillaco (e.g., on Quehwar, Acay, and Socompa), including a human sacrifice on Quehwar (cf. Beorchia 1985:188–200, Ceruti 2001a). If boundary marking played any role in Llullaillaco's selection, it would seem to have been only a secondary factor.

An alternative (or perhaps complementary) explanation is that the sites were built and offerings made to help establish alliances between the Incas and the indigenous people of the region. This hypothesis would be made stronger if one or more of the children sacrificed on mountaintop shrines had come from the local group (cf. Ceruti 2003a:166–167, Gentile 1996:82–84; Reinhard 1985a, Schobinger 1999). Even if this general hypothesis does not fully explain why Llullaillaco was specifically chosen, the desire for strengthening an alliance may well have been combined with the volcano's regional importance.

From a religious standpoint, an explanation for ritual sites on high mountain summits—including the one on Llullaillaco—has been that the Incas wanted to be closer to the sun to worship it (cf. Rebitsch 1966:72; Schobinger 1999). Because the Incas created the majority (if not all) of such sites and because sun worship figured prominently in their religion, this is an understandable conclusion. However, we know that the Incas did not worship solely the sun at principal sites—including even at the Temple of the Sun in Cuzco—and indeed they generally included worship of the local deities of the regions they conquered (cf. Cobo 1964 v.2:146).

Although the sun was probably invoked during ceremonies on Llullaillaco's summit, the reasons for the selection of this mountain and construction of a

ceremonial site on it certainly had to involve worship of the local deities and (especially) of the mountain itself. As we have noted, not only were mountains worshiped in the Andes prior to the Inca conquest but mountains in the conquered regions were invariably worshiped by the Incas themselves—who considered many to be among the most important deities in their empire (cf. Albornoz in Duvols (1984); Cieza 1977; Duvols 1984; Guaman Poma 1980).<sup>2</sup>

A common belief throughout this area—and indeed throughout the Andes—associates mountains with water and the control of weather and fertility (cf. Casaverde 1970:141; Martínez 1976:278; Reinhard 1985a:311). Several volcanoes in the region of Llullaillaco (Figures 1.2 and 1.20) have Inca ceremonial sites on their summits (Beorchia 1985). The closest high-altitude site of significance to the south is on Antofalla some 115 km distant. About 185 km to the east is the complex on the summit of Quehwar. However, a number of important sites lie closer to the north—beginning with Socompa, only 45 km away (Ceruti 1999a). Not much further distant are the Inca archaeological remains on the summits of Pular, Pili, Chiliques, and Licancabur—not to mention several sites of lesser importance (Barón and Reinhard 1981; Beorchia 1985; Ceruti 2001c, 2005c; Reinhard et al. 1980).

These sites share several of the features of Llullaillaco, such as artificial platforms, structures made of simple alignments of stones, ceramics of Inca origin, Inca architecture, and *tambos* at the bases of the mountains. All figure in traditional religion as the abodes of deities believed to control the weather and thus the fertility of crops and animals, in a region where pastoralism has been playing an important role for centuries (cf. Barthel 1959; Reinhard 1985a).

Llullaillaco is the only volcano in the region to have snow prominently visible throughout the year, and this certainly would have contributed to the belief that it was a provider of water—just as it is perceived today (cf. Barthel 1959). This would have offered an additional reason to consider Llullaillaco a deity in control of weather and the fertility of livestock in the Atacama highlands.

We are unaware of any study having been made of the potential for pastoralism in the area around Llullaillaco. There are a few small freshwater sources (Figure 1.20) near the Salar de Llullaillaco to the east (Fadel 1977:124) and along the Inca road that passes by the Salar de Punta Negra to the west (Niemyer and Rivera 1983:155). The ecological situation does not

seem to have changed much since the time of the Incas, who had to use the road across the Atacama Desert in small groups of less than 40 men in order to not surpass the amount of available water (Vivar 1987:62).

No remains of large corrals or settlements exist in the surrounding region, and thus it is unlikely that pastoralism was particularly important near the volcano. This does not mean that Llullaillaco was unimportant in the religious concepts of pastoralists living in a broader area, however. In the village of Socaire in northern Chile (Figure 1.20), the volcano is still invoked in rituals for the fertility of llamas because of its perceived ability to send rain (Barthel 1959:33; Reinhard 1985a:304). The association of the volcano with llamas could have been further enhanced due to another factor—that of trade.

Legends sometimes provide clues about the reasons for ceremonial sites. As with many other Andean peaks, there is a story that the Incas hid gold on Llullaillaco's summit in order to prevent it from falling into the hands of the Spaniards (Rebitsch 1966:61). The Incas were said to have cut the throats of the llamas used to carry the treasure up the volcano (Jurich 1974:38). In one variation of this legend, the Incas were said to have left a *cogote* ("nape" or "back of the neck") of gold (Echeverría 1988:35). This latter myth may be linked to yet another legend in which a small gold llama was believed to have been worshiped on the mountain in ancient times (Fadel 1977:103). According to this version, a gold statue of a camelid on its summit was believed to represent the goddess of camelids Coquena—who was worshiped by the Atacama people of the region (cf. Barón and Reinhard 1981:36; Ruben 1952:158). These legends may well be based on facts, in that we did indeed find gold camelid figurines among the Inca offerings buried on the summit of Llullaillaco (N-1 and NE-2; see Appendix A).

It might be added that a white *carnero* (literally "sheep," but used in the chronicles to refer to a llama)—due to belief in its bringing fertility to livestock—was said to have been a significant deity worshiped by the Colla people in the southern part of the Inca Empire (Garcilaso 1967 v.1:114). As we have seen, there is archaeological and ethnohistorical evidence that colonists were sent by the Incas from the Lake Titicaca region (hence Colla) to northwestern Argentina—and they could have brought this belief with them (cf. Reinhard 1985a:310). It is interesting to note that a similar belief is reportedly held by Atacama people to this day. Indeed, the Incas themselves worshiped a white

llama they held as their "principal sign of lordship" (Sarmiento 1943 52–53)—a deity that even played a role in initiation ceremonies on Huanacauri, a sacred mountain near Cuzco. Thus, the legend could conceivably relate in some way to this Inca ceremony.

Although only legends and votive figurines exist to associate Llullaillaco with llamas, there is further evidence that supports the idea that this mountain may have been considered important to the Incas—at least in part—because of its association with llama caravans. The volcano is situated almost midway between the oasis of San Pedro de Atacama and the relatively fertile valleys of Copiapo to the south. Only as the road reaches near the southern valleys does it pass by a higher mountain. Llullaillaco is also located between the western coast and fertile eastern valleys.

Its central location would likely have contributed to Llullaillaco's symbolic significance to the Incas, who were known to emphasize duality and attribute sacredness to a centrality of position—particularly when conquering a region (cf. Reinhard 2007a). For example, Cuzco was perceived as being at the center of the empire and as the center for an elaborate series of imaginary lines (*ceques*) projected onto the immediate landscape. More than 300 sacred sites, mostly associated with natural features of the landscape, were linked by the lines that largely originated from in (or near) the Temple of the Sun and extended out in a radiating pattern—thereby creating what became known as the *ceque* system (Figure 4.2).

Based on Barthel's description of mountains worshiped at the town of Socaire to the north of Llullaillaco, it has been suggested that a system of radial lines similar to the Cuzco *ceque* system existed there (cf. Mariscotti 1978:79–82; Sherbondy 1946:41, 66). One of the lines is shown to extend to Llullaillaco (Figure 8.12). However, sight lines alone would not constitute a *ceque* system because it is difficult to find traditional mountain villages anywhere in the world that did not consider some of the peaks around them to be sacred—and the drawing of lines toward them would create only a superficial appearance of a *ceque* system.

In Cuzco, the system was far more complex—with the number of lines and the sites along them being utilized in the organization of social groups, the order of making offerings, and the distribution of water rights. Some of the lines have been demonstrated to also have served calendrical purposes (Zuidema 1964). Finally, even if a simplified version of such a system existed at

Socaire it is unlikely that it would have been a reason for Llullaillaco's importance.

On the other hand, worship of Llullaillaco would likely have related at least in part to its central location relative to the caravans that passed close to its slopes along the north-south road not far distant west of the mountain (Figure 1.20). Mountains were worshiped as owners and protectors of livestock (Duviols 1974–1976:282). They still are believed to be responsible

for their fertility over a wide area of the Andes today (cf. Casaverde 1970:141; Martínez 1976:278; Reinhard 1985a:311).

Reinhard was told in the villages of Camar and Socaire not far to the north of Llullaillaco that mountains in the region were worshiped for the protection of the herds, especially when they passed near the peaks. We know that mountains were generally worshiped by men leading caravans as they came within

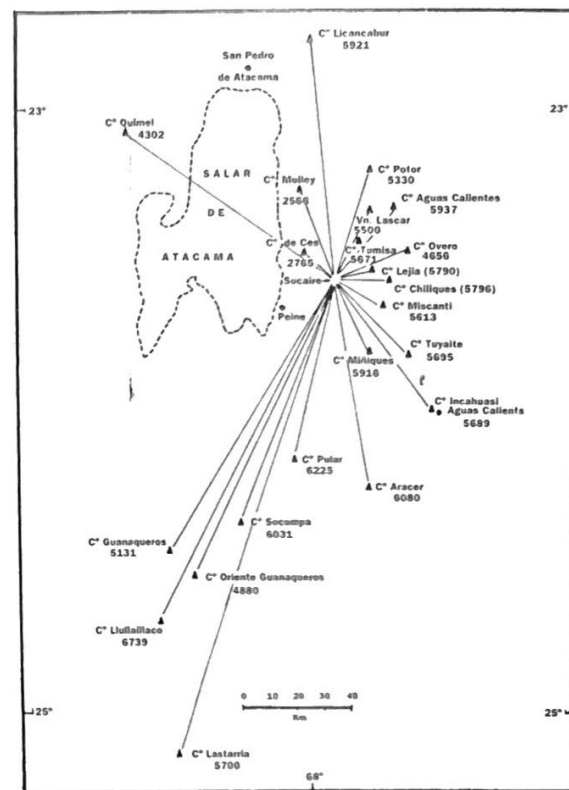


Fig. 8.12. A map of sightlines from the village of Socaire (Chile) to sacred mountains, including Llullaillaco, that are still being invoked in rituals for fertility (from Sherbondy 1946).

their vicinity—in the Inca period (cf. Duviols 1974–1976:282) and in recent times (cf. Lecoq 1987:14, Nachtigall 1966:279). Llullaillaco would have been no exception, being the highest mountain located along hundreds of kilometers of desert caravan routes.

One of the economic reasons for the Inca penetration of the region has been thought to be the exploitation of minerals (Llagostera 1976:215; cf. Raffino 1981:234). The north-south Inca road to the west of Llullaillaco may have been built for this reason, especially with regard to the transportation of turquoise and copper from the south (Niemeyer and Rivera 1983:155; cf. Vivar 1987:75). Although no evidence has been found that the Incas had mines on Llullaillaco, gold, copper, and turquoise appear to have been mined in the Salar de Punta Negra region during the Inca period (Lynch 1990:224). Mountain deities were perceived as the owners of minerals in the times of the Incas (Cobo 1964 v.2:166), as they are still perceived in many parts of the Andes today (cf. Casaverde 1970:142)—including in areas not far distant from Llullaillaco (Nardi 1967:251). Llullaillaco's dominating position in the region could have led to its being conceived as the ultimate owner of the minerals, in that in the Andean worldview lower peaks are usually believed to be under the domain of the high snow mountains (cf. Ceruti 2008; Reinhard 1985a, 1985b).

In summary, there are a number of reasons the Incas and local inhabitants could have perceived Llullaillaco as an especially significant part of the sacred landscape. Not least of these would have been its association with the control of weather and water, and thus the fertility of crops and animals. It also held a dominating position relative to the main north-south road and thus with trade. Its association with mineral activity would likely have played a role, as would its having been an active volcano. Given the evidence from other mountains, where more information is available, Llullaillaco may well have been perceived as a protector deity and as a place of origin of indigenous peoples.

Llullaillaco's great altitude would have reinforced the perception of it as an axis mundi uniting the underworld, the earth, and the sky—wherein the celestial phenomena were themselves seen as deities. By building a ritual site on the summit and making powerful offerings, the Incas would have essentially gained economic, political, and religious control over a vast region in the southern part of their empire.

## SACRED LANDSCAPE AND PRE-INCA CULTURES OF THE ANDES

Llullaillaco has provided information that helps increase our understanding of beliefs and practices that were found throughout the Andes at the time of the Spanish conquest. However, the Inca Empire was itself the result of cultural developments that had taken place for more than two millennia previously. During the pre-Inca period, among the cultures that especially stand out are the Chavín, Nazca, and Tiwanaku (Tiwanaku). This is primarily due to archaeological remains that have survived to the present day, including massive stonework requiring superior engineering skills and complex social organizations.

All three cultures have religious sites that have been considered among the great mysteries of South American archaeology. Fundamental questions remain as to why they built ceremonial structures where they did and what they meant. Research undertaken in recent years has shown that the main centers of these cultures can be better understood when examined using the perspective of sacred landscape (cf. Aveni 2000, Burger 1992a; Kolata and Ponce 1992; Reinhard 1985b, 1987a, 1988, 1990a, 1991, 2002b), and it is to this topic we now turn.<sup>1</sup>

### Chavín

In a remote area of the central Peruvian Andes, a religious center was built three millennia ago that was to become one of the most important archaeological sites in South America. The ruins of Chavín de Huantar especially caught the attention of the Spanish because they clearly predated the Inca, and yet they were well built and extremely complex—involving an elaborate system of tunnels within a man-made pyramid. Later this center gave its name to a culture and style of iconography that came to be found over a vast area of the central Andes. The Chavín culture lasted about 1,000 years—longer than the Roman Empire.

Chavín de Huantar was one of the most important centers in the Andes at the beginning of the first millennium B.C., and its iconography eventually spread over much of north-central Peru. The site is located on the east side of the Cordillera Blanca at 3,135 m (10,285 ft) amid rugged mountain terrain (Figure 8.13). It has been well documented and is visited yearly by thousands of tourists. However, it is still unclear what the site meant or even why it was built where it was.



Fig. 8.13 A view over Chavín de Huantar (bottom center), Peru, with the mountain Huastan in the background.

At the time of the Spanish conquest, mountain worship played a prominent role in the religious beliefs of people living near Chavín de Huantar. In the 1500s, the most important deity of the people who lived on the west side of the Cordillera Blanca was Huascaran, Peru's highest mountain [Albornoz in Duviols (1967:30)]. An important reason for Chavín de Huantar's location must have been due to its lying at the foot of one of the highest mountains of the Cordillera Blanca, Huantsan [6,395 m (20,981 ft)].

This mountain is near the origin of the Mosna and Santa Rivers that flow by it on the east and west, respectively—one to reach the Pacific Ocean and the other to eventually enter the Amazon and thus to the Atlantic Ocean—making it and Chavín de Huantar a geographic and symbolic center with regard to water circulation (Reinhard 1985b, 1987a). Indeed, villagers still make offerings to Huantsan to provide them with water for crops and for the fertility of livestock.

Although the Spanish chroniclers wrote little about religious beliefs and customs in the region of Chavín de Huantar, it is highly likely that Huantsan was the most important mountain worshiped by the people living near it. Huantsan is the highest mountain and dominates the eastern side of the Cordillera Blanca even more than it does the western, where it was the sacred mountain of the indigenous people during the early 1500s (Hernández Príncipe 1923:34). Offerings are still being made to Huantsan and other mountains near Chavín de Huantar to increase the number of livestock and the fertility of crops. These deities are perceived to continue to have an active role at the Chavín site.<sup>6</sup>

When viewed in economic terms, the location of Chavín de Huantar may have been selected due to its lying between the coast and tropical forest regions and thus serving as an apt place for being part of a trade system—as some scholars have noted (cf. Burger 1992a:277; Lumbreras et al. 1976). It is situated at one end of the easiest pass through the Cordillera Blanca. Of course, economic functions do not rule out religious ones. Mountain deities were (and still are) widely believed to be responsible for success in trade.

Chavín de Huantar is also on the fertile eastern side of the Cordillera Blanca, and its location is especially favorable for rainfall agriculture (Burger 1992b:128–129). Thus, the area supplies a reasonable subsistence base while at the same time being at the foot of the highest mountain that is nearest to the origins of the Mosna and Santa Rivers. Elaborate channels were built through the ceremonial complex of Chavín de Huantar

so that water originating from the melting snows of Huantsan could be used for ritual purposes (Lumbreras et al. 1976:9–10). Rivers whose source is in a powerful mountain are still widely seen to partake of the mountain's powers, and river confluences (such as found at Chavín de Huantar) are sacred places in their own right (Burger 1992a:275).

The association of mountains, water, and fertility and the persistence of this belief throughout the Andes suggests that a Chavín religious cult spread due to its conforming with religious concepts already held throughout the Andes (Reinhard 1985b, 1987a). This would explain the rapid spread of Chavín iconography, along with a reason it persisted over such a vast area of the Andes for a millennium—as well as why it influenced, even if only indirectly, two other great cultures that followed it, the Nazca and the Tiwanaku (Tiwanaku).

### Nazca

One of the best-known archaeological sites in South America consists of large figures and lines called geoglyphs, drawn on the desert surface near the town of Nazca in southern Peru. The geoglyphs are situated for the most part on the barren plateau between the Ingenio and Nazca River valleys near the foothills of the Andes (Figure 8.14). Some of the figures measure more than 100 m in length, and the larger of them can only be seen without distortion from the air.

Geoglyphs have been found in widely dispersed arid coastal valleys and plains elsewhere in Peru, as well as in northern Chile. These were not made by a single culture or in the same time span. Although at times impressive, none of the concentrations of geoglyphs can rival that found on the desert plain near Nazca in the quantity, variety, size, and elaboration of their forms.

Archaeologists have in broad terms answered the questions as to who made the geoglyphs at Nazca and when (Aveni 2000; Silverman and Proulx 2002). Aside from the dating of potsherds found on the geoglyphs, the approximate ages of some geoglyphs can be established based on similarities between them and designs on Nazca pottery with well-established dates. When all the evidence is examined, it is clear that people living in the region of Nazca constructed the geoglyphs sometime between 500 B.C. and about A.D. 700—with some lines possibly being constructed until the Inca conquest of circa A.D. 1475 (Clarkson 1990). However, for years a satisfactory explanation was lacking as to why they were made.



Fig. 8.14. Giant earth drawing (geoglyph) of a triangle on a plateau near Nazca (Peru).

The actual construction of the geoglyphs was not much of a mystery, as they were formed when stones with oxidized surfaces were removed and the light soil beneath them was exposed. The lack of rain has been a primary reason they have been able to survive until the present day. Although the plain is crossed by the dry courses of many streams, the placement of the geoglyphs indicates that they were built after the streambeds had formed and that no major climatic changes have occurred.

There is little direct evidence as to the beliefs held by the Nazca people, but archaeological remains, accounts in Colonial times as to traditional worship, present-day beliefs rooted in the past, a study of Nazca iconography, and an examination of the essentially unchanged ecological situation all help in interpreting what these ancient beliefs might have been and how they could have related the geoglyphs to the natural environment and to water and fertility. The mountains near Nazca are not the high snow peaks of the Central Andes. Nonetheless, the basic beliefs as to deities controlling meteorological phenomena appear to have been very similar. Many of these beliefs were held by people living in Nazca in recent times and figure in their legends (Reinhard 1988:14–21).

The earliest information we have describing the *huacas* (sacred places or objects) of the Nazca people at the time of the Spanish conquest comes from the Spanish priests Albornoz and Acosta writing in the late 1500s, as well as from Severino's account of 1623. Albornoz (in Duviols 1984:213) only mentioned one *huaca* for the Nazca people—a mountain. Acosta (1962:224) was told that the principal *huaca* of the ancient Nazcans was a mountain of sand that stood out amid the stone mountains near Nazca. This could only have been Cerro Blanco. Because Acosta was speaking of ancient Nazcans when he was there in the late 1500s, we can assume that this mountain was worshiped at least a few centuries earlier—probably the oldest direct evidence of religious beliefs at Nazca that exists.

In 1623, the priest Vicente Severino wrote down the testimonies of people at Nazca concerning their traditional religious practices. One man stated that there was no shrine in the village because the people went to worship on a mountain of sand called Moich, on the mountain Uracancana, and at springs (Reinhard 1988:18).

The only mountain of sand near Nazca is Cerro Blanco, whereas Uracancana (Uracangana or Huacangana on some maps) is today used as the name of

one of the summits next to Cerro Tunga—part of the same massif. It would seem to be no coincidence that mountains and springs were listed together and that they were the most important places of worship to the Nazca people.

Remains of Inca structures that clearly served a ceremonial purpose have been found on the summit of Illakata (source of the Nazca River), whereas several pre-Hispanic ritual structures exist on and near the summit of Tunga. Seashells, common offerings for water, were scattered amid some of the ruins. Potsherds were identified as belonging to the Late Intermediate period (about 1000 to 1475 A.D.; Reinhard 1988:18), the time at which many of the lines were constructed and used (Clarkson 1990).

There is further evidence to support the Nazca lines as having played a role in mountain, water, and fertility beliefs. Ethnographic information concerning the use of straight lines in other areas of the Andes demonstrates that they were often related to mountain worship, primarily to obtain water (Reinhard 1988:22, 57–61). Of course, these cases do not constitute proof that straight lines were utilized in the same ways centuries earlier at Nazca. However, they at least are in accord with our understanding of Andean beliefs and customs—and they are among the few examples known to date of the traditional use of straight lines. They therefore provide valuable supporting data for any interpretation of the Nazca lines.

The combination of the association of line centers with water and the orientations of geometric figures with the water flow led Aveni to the conclusion that the Nazca lines as a whole were probably intended to be walked over as part of rituals related to the bringing of water to the Nazca Valley (Aveni 1990:112). Taken together, the evidence suggests that the vast majority of figures and lines found at Nazca can be interpreted in terms of a water or fertility cult (Reinhard 1988, 1992a).

Of course, the geoglyphs can be interpreted in many other ways. However, a substantial body of material exists that enables a theory to be developed relating mountain and fertility beliefs with geoglyphs. This theory allows diverse data to be explained in a logically consistent manner and is in accord with traditional Andean beliefs and practices. One thing at least appears to be clear: Any interpretation of the geoglyphs must take into consideration the ecological situation and the sacred landscape of the region.

Sufficient rainfall in the mountains to the east was critical to agriculture, the mainstay of the Nazcan

economy. This rainfall would have produced surface water and fed the underground water table, which the ancient Nazca people utilized extensively. Ceremonies relating to the worship of deities that controlled weather must have been of prime importance to an agricultural people living in one of the world's most arid regions.

One of the reasons these giant desert geoglyphs have captured so much attention is precisely because there is no simple answer to why they were built. They could have served functions for which we are totally unaware, and they may well have served multiple ends. This does not mean, however, that we cannot come closer to a solution—as long as we utilize a theory that takes into consideration the economic and ecological realities the people faced and remains in accord with what we know of traditional Andean beliefs and customs.

### Tiahuanaco

The monumental complex of structures at Tiahuanaco (Tiwanaku), Bolivia, constitutes one of the most impressive archaeological sites in South America (Figure 8.15). It is situated at 3,845 m (12,615 ft) about 20 km to the southeast of Lake Titicaca. Amid an urban center, large monoliths were used in making religious structures nearly 2,000 years ago. This urban ceremonial complex served as the center for a civilization that lasted nearly a thousand years.

An increase in agricultural production allowed for a surplus that enabled the people to devote time to the construction of the famous temples of Kalasasaya, Akapana, and Pumapunku. Although sites of Tiahuanaco origin are mainly clustered around the eastern half of Lake Titicaca, its influence extended over a considerable distance—including as far west as the Peruvian coast, as far south as the valleys of northern Chile, and beyond Cochabamba in Bolivia to the east.

Tiahuanaco has been extensively documented and has become a major tourist destination. However, it remains a mystery as to why it was built at such a high and barren location and what the structures mean. Beliefs relating to sacred landscape and mountain and fertility cults appear to hold the key to better understanding Tiahuanaco's location, function, and iconography (Reinhard 1985b, 1990a, 1991).

The Tiahuanaco region was no exception to the emphasis on mountain worship, and this continues to be the case to the present day. On the southwestern shore of Lake Titicaca, the most powerful deities of the

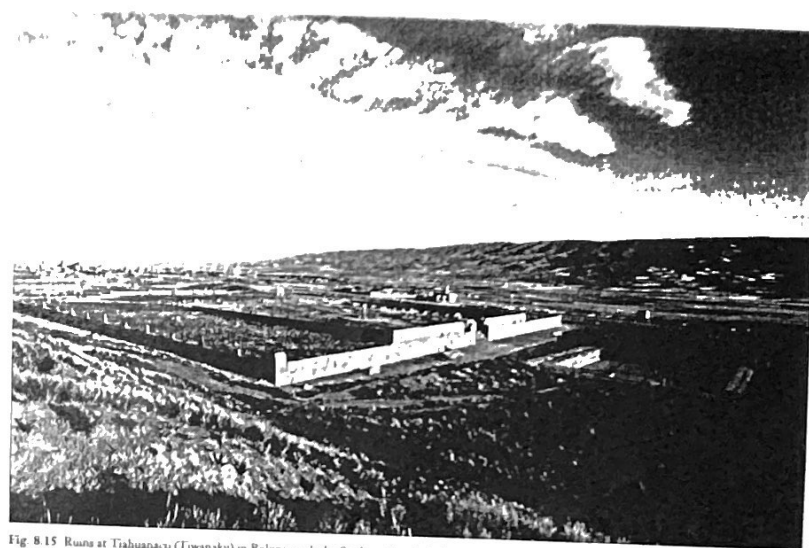


Fig. 8.15 Ruins at Tiahuanaco (Tiwanaku) in Bolivia, with the Sunken Temple (right) and walls of the Kalasasaya temple complex behind.

region are the high mountains—which are also believed to control meteorological phenomena. Worship is still performed today to these mountains for the fertility of crops and animals. Similar beliefs are found on the eastern shore of Lake Titicaca not far from Tiahuanaco. Mountains are believed to protect the fields, and ritual specialists chosen by the mountain gods are responsible for preventing hail and for producing rain (Buechler and Buechler 1971:93–96).

Offerings are still being made to mountain deities on the Island of the Sun in Lake Titicaca (Reinhard 1991, 1992b). This island was one of the most sacred places in the Inca Empire. Indeed, it was associated with the origin of the Inca in several myths. Today, two mountains are of special importance to the local inhabitants: Illampu and Illimani (cf. Girault 1988:23). These two are considered eternal gods and owners of the Earth. At the time of the Spanish conquest, people from the ancient provinces of Lupaca and Pacajes—which bordered Titicaca to the south and east—believed themselves to be descendants of the marriage between Illampu and Lake Titicaca. Another mountain invoked along with Illampu and Illimani in rites for rain on the

Island of the Sun is Sajama, a high snowcapped peak to the south.

People living near Tiahuanaco still make offerings for rain from the summits of the nearby hills to the surrounding mountains, especially the snowcapped peaks such as Illimani. The popular climbing peak of Huayna Potosi [6,094 m (19,993 ft)] also figures prominently in local beliefs. It is the mountain named Cacaaca in an account of 1638 (Calancha 1974:1960) and was widely worshiped in the region of Tiahuanaco—especially to the north, where the Tiahuanaco ruins of Lucarmata and Pajchuri are located. In La Paz, Huayna Potosi is considered third in the hierarchy of mountain deities (*achachilas*)—behind Illimani and Illampu. It is counted among the five most important mountain deities worshiped in Tiahuanaco today (Girault 1988:23, 333), and is particularly believed to be a controller of hail (Carter and Mamani 1982:100, 289).

Weather has been a primary concern of people of this region, in that hailstorms have destroyed crops of entire communities, frosts have killed livestock and crops, and violent electrical storms have killed people. Hardly a rainy season passes without lightning causing deaths of people and livestock in the region. In villages

east and southeast of Tiahuanaco, people who survived being struck by lightning were viewed as having been selected by a mountain deity to become ritual specialists (*yatris*) (Reinhard 1990a:157–158).

It is likely that the ceremonial center at Tiahuanaco was primarily concerned with the fertility of plants and animals, especially involving rituals to control meteorological phenomena. But why was it built where it was? Among difficulties such as high altitude and climate was the need to haul huge stone blocks from several miles away. The answer may be especially due to its relation to four geographical features: the mountains Sajama, Illampu, and Illimani, and Lake Titicaca.

Illimani has had such a dominant role in traditional religious beliefs that it is found associated with mountains as distant as Tata Sabaya, some 300 km to the south. It was the sacred mountain referred to in 1586 as being one of the most widely worshiped deities in this area (Cabeza de Vaca 1965:346; cf. Calancha 1974:1960). This should come as no surprise, for at 6,462 m (21,200 ft) it is the highest mountain between the ocean to the west and the Amazon basin to the east.

Although not a mountain, Lake Titicaca is a sacred geographical feature that has played (and still plays) an

important role in Andean cosmology. In addition to the aquatic resources it supplied, extensive reclamation of land during the Tiahuanaco period from the marshy areas near Lake Titicaca allowed for intensive agricultural production that provided for a population of some 40,000 people (Kolata 1987:38). This land was in turn only available as long as rain, controlled by the weather gods, did not cause the level of Lake Titicaca to rise significantly or the rivers to flood the agricultural land. Indeed, cycles of droughts and flooding of this land may have been a factor in the as-yet-unexplained decline of Tiahuanaco as a ceremonial center at the end of the first millennium.

During the Inca period, Lake Titicaca was perceived to be an inland sea connected to the ocean—mother of all waters (Earls and Silverblatt 1978:304). From its depths emerged the Inca creator deity Viracocha. People still believe that Lake Titicaca (Figure 8.16) is involved in bringing rain and that it distributes the water sent by the mountain deities (Reinhard 1992b; cf. Tschopik 1951:197).

The lake clearly was of religious importance to the people of Tiahuanaco, as is shown by the majority of their temples having been built near it. Tiahuanaco

ritual items have also been found on the Island of the Sun and the Island of the Moon (Bauer and Stanish 2001), and Tiahuanaco offerings were found on an underwater ridge near the Island of the Sun (Reinhard 1992b). There can be little doubt that Lake Titicaca played a dominant role in Tiahuanaco economic-religious concepts.

Tiahuanaco is built on the only location near a river in a valley connected with Lake Titicaca (from which the summit of Illimani is visible) that maintains a rough north-south line with the important sacred mountains of Illampu and Sajama. If the site had been built more to the west, this would have placed it in land susceptible to flooding—and if built farther to the east the view to Illimani would have been blocked by lower hills. This location might also explain the orientation of the famous Akapana and Pumapunku pyramidal structures toward Illimani.

Tiahuanaco was situated amid the most powerful traditional deities of a vast region, all of which still play important roles with regard to water, weather, and the fertility of crops and animals. Tiahuanaco was not considered by traditional peoples to be at the “middle of the world” at the time of the Spanish conquest for nothing. It was located in broad terms at a geographical and symbolic center between the ocean and the Amazonian lowlands. Its specific situation was associated with Lake Titicaca, the largest body of water in the Andes and believed to be connected to the ocean—the origin of all water. It was situated in the center of the highest peaks in the region. These elements taken together make it clear that the site was chosen with care and that it was based on beliefs fundamental to Andean culture (Reinhard 1985b, 1990a, 1991).

#### Summary: Andean Mountains and Deities

The belief that deities controlling meteorological phenomena resided in mountains has proven to be an ancient concept in the Andes, long predating the rise of the Incas. In addition being noted in the earliest written records, the belief is based on ecological facts that would have been clear to anyone living in the Andean region. As we have seen, mountains do control meteorological phenomena. Rainfall, snow, clouds, lightning, and thunder often originate in the mountains—and they are the sources of the rivers so vital to the local economies.

Of course, mountains are also physically dominating elements in the natural environment of Andean peoples and form obvious points of contact between earth and

sky. Their connection with the underworld—through craters, caves, lakes, and water running beneath the surface—would also not have gone unnoticed. The symbolic significance of a mountain as uniting the three levels of the world—the underground, the earth, and the sky—is not just confined to the Andes but is common in many other regions of the world, as we shall see.

In the Andes, the mountain came to be one of the most significant elements in the conceptual system relating to the circulation of water through the subterranean, terrestrial, and celestial spheres. Whatever the initial source of water, mountain deities were usually the main controllers of it. They thus were the ones who directly affected the crops, animals, and—in the end—people. The mountains thus required that traditional Andean peoples worship them. The rise of well-organized and complex cultures—such as those of Chavin, Nazca, and Tiahuanaco—led to the construction of ceremonial centers associated with sacred landscape, which included some of the most impressive sites of the ancient Andes.

#### BEYOND THE ANDES

The focus of our study has been on the role of mountains in Andean cultures. However, the Andean peaks are not alone in being important to indigenous peoples—in that this is generally the case throughout the world wherever mountains dominate the landscape.<sup>1</sup> To help illustrate this point, we present a brief summary of beliefs and rituals found in the Mesoamerican and Himalaya regions—the latter containing the world's highest mountains and located on the opposite side of the globe. This will also serve to place the Andean material within a broader context and underscore the accomplishments of the Incas in having constructed ceremonial sites at such great heights.

#### Ancient Mesoamerica

Many parallels can be found between the beliefs and practices of the Incas and the great cultures of Mesoamerica, especially the Aztecs (cf. Broda 2001:305–311). Here we will only briefly deal with aspects of Aztec religion.<sup>2</sup> Despite similarities that exist and the fact that they were contemporaneous with the Incas, no evidence has been found of direct contacts between these two cultures—and marked differences existed.

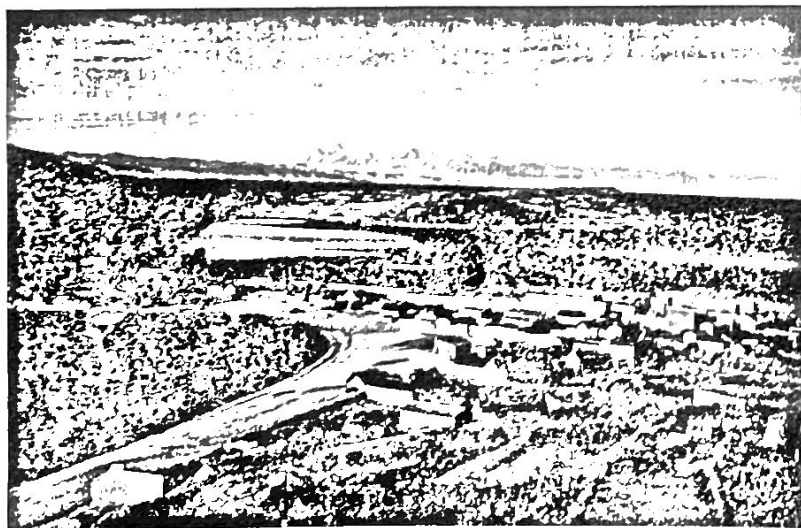


Fig. 8.16. Lake Titicaca and the village of Challapampa on the Island of the Sun (Bolivia), with Illampu and Ancocoma in the background