

FROM ARCHAEOLOGICAL SITE TO NATIONAL MONUMENT: CHILE'S MONTE VERDE

by Tom D. Dillehay



[Editors' Note:

Rarely does an archaeologist's field site become a National Monument, but the story of Monte Verde in Chile has unfolded in remarkable and unexpected ways. The story of the site documents major discoveries in early New World settlement, but it also reflects some exciting and dramatic developments that have transformed the fields of archaeology and anthropology in recent years. Most significantly, this site's rich lode of evidence reveals a much more complex social and economic organization than was previously expected of early New World cultures, as explained in this fascinating article by Monte Verde's lead archaeologist, Tom Dillehay. As explained in the article, the long sequence of radiocarbon dates on the different materials from the site clearly placed the Monte Verde II occupation at about 12,500 B.P. (Before Present); Monte Verde I has an even earlier dating sequence. The site is one of the most significant ever excavated in the New World, and for a young archaeologist like Dillehay, who began his Monte Verde journey in the 1970's, this was surely the opportunity of a lifetime. In more recent years, the story has continued to unfold with ever more fascinating developments.]

Introduction

Today, the site of Monte Verde is preserved and protected by Chilean law, which has declared it a National Monument. I am currently working with the same interdisciplinary research team that excavated the site in the late 1970s and 1980s, working to build a site museum where the artifacts will be permanently housed and duplicated in life-size form, which will reconstruct the activities carried out by the Monte Verdeans nearly 13,000 years ago.

Monte Verde was discovered in 1976 while I was teaching at the Southern University of Chile in Valdivia, a city located about 400 km north of the site. Initially, the locality was visited by colleagues from the university's museum, who found large animal bones and teeth eroding from the creek bank and thus thought they were examining a paleontological site. However, when my stu-

dents and I later visited the site, we discovered human artifacts associated with mastodont bones and reclassified Monte Verde to a late Ice Age archeological site. Beginning in 1977, I assembled a team of archeologists and geologists to study the site environments and to cautiously excavate the buried remains there. Eventually, we carried out seven field seasons at Monte Verde and added more than sixty different specialists drawn from various scientific disciplines, including parasitologists, geneticists, entomologists, and many others. By 1985, the research team produced one of the most highly diversified and largest interdisciplinary studies ever done in world archaeology, which resulted in the two large volumes published by the Smithsonian Institution Press.

Dialogue with Modern Day Inhabitants

An important aspect of our current research has involved establishing dialogues with indigenous groups (Huilliche and Mapuche) in southern Chile, to listen to their ideas about Monte Verde, and what the site means to them. The idea is not to treat the site as dead or past history, but as a past lived everyday into the present. Indigenous people in the forested region, where Monte Verde is located, still exploit the same kinds of economic resources (except for the extinct mastodons) that were hunted and gathered 12,000 years ago. To these people, sites like Monte Verde are not dead or inert, but live in their cultural memory and in their everyday practices. For them, their ancestors still live in and walk about the sites. As a result of the indigenous interest in Monte Verde and other archeological sites, we have begun to share the scientific information that we have collected from the site. In turn, we have actively sought their interpretations of the site and their opinions of our interpretations.

Although we always have shared our experiences at Monte Verde with the public and with indigenous communities, the increased dialogue and communication that we have had with them has significantly enhanced our understanding of Native American concerns, of the archeological record in general, and of our relations with indigenous communities. Only a few years ago, there was

a broad notion within the disciplines of archaeology and bio-anthropology that to acknowledge the interests of indigenous people would compromise the integrity of science. The scientific position was that close relations with indigenous groups and [recognizing] their concerns might limit archeological field work and require the return of excavated materials to local communities. Many archeologists believed that science was objective, neutral and for the benefit of all, while the religious and political claims of indigenous people were sectarian, subjective, and for the benefit of the few. However, as the years have passed more and more archeologists have changed their ideas and have begun to work much more closely with indigenous groups. Increasingly, indigenous voices are being heard in dialogue with archeologists.

As part of the sweeping changes in the discipline, we have obtained scholarships for Huilliche and Mapuche students to study anthropology at the Southern University of Chile, in order to establish an indigenous-regulated archeology that makes more use of their concepts of time, space, and the material world in the excavation of sites and in the interpretation of archeological remains.

From the perspective of these students, "the scientific, objective measuring and recording of sites is combined with their living past." As a result of these changes, our practice of doing archeology has changed considerably in the past few years, especially where we and other archeologists are excavating on or near indigenous lands. Both archeologists and indigenous people are now forming partnerships to study the past from the perspective of the "past still living." This new perspective has opened up the possibility of other kinds of archeological practices, archeologies done by and for the Huilliche and Mapuche. Our research at Monte Verde and the dialogues we have established with indigenous peoples have given a more meaningful historical context to the site.

Historical Background

Between 1976 and 1987, as explained above, I directed a large interdisciplinary research team to study the archeological settlement of Monte Verde in south-central Chile. Monte Verde is an open-air campsite on the banks of a small stream, surrounded by sandy knolls, small bogs, and damp forests that have been there since late Pleis-



General view of Monte Verde and today's Chinchihuapi Creek. The 12,500 year-old site is buried in the terrace in the background. Photo, courtesy of Tom Dillehay.

tocene times. The bog later developed in the stream basin, covering the abandoned site under a layer of peat. Because the lack of oxygen in the bog inhibited bacterial decay and because the constant saturation prevented drying for thousands of years, all kinds of organic materials that normally disappear from archaeological sites had been preserved. An interdisciplinary research team of more than sixty scientists studied the remains excavated from two areas at the site, called Monte Verde I and Monte Verde II. The results of this study were published in two large volumes by the Smithsonian Institution Press (Dillehay 1989, 1997).

Early Excavation Discoveries

At Monte Verde we uncovered a number of remarkable and unexpected finds that included not only stone flake tools, typical of many early South American sites, and animal bones, but also long spear points and a wide variety of plant remains and numerous wooden objects. The organic remains indicated the importance of plants as well as animals in the inhabitants' diet. The existence of wood and wooden tools, more common at Monte Verde II than stone artifacts, provided an intriguing look at tools and equipment rarely seen in late Ice Age archaeological records. I will briefly describe the implications of what we found at Monte Verde I and Monte Verde II.

Around 12,500 B.P. at Monte Verde II, perhaps twenty to thirty people built a 20-meter-long tent-like structure out of wood and animal hides. The frame was made of logs and planks anchored by stakes, and the walls were poles covered with animal hides. Several pieces of cordage and string made of reed wrapped around wooden posts and stakes, recovered among the architectural remains, show that the people planned a lengthy stay. The tent's dirt floor was embedded with hundreds of microscopic flecks of hide tissue, suggesting that it was probably covered with animal skins. Inside the tent, individual living spaces were divided by planks and poles. On the floor of each living space were brazier pits lined with clay and surrounded by stone tools, as well as the remains of edible seeds, nuts, and berries. Outside the tent were two large communal hearths, a store of firewood, wooden mortars with their grinding stones, and even three human footprints near a large hearth, where

someone had walked across the soft, wet clay brought to the site for refurbishing the firepits. All of these remains indicate discrete tasks, primarily food preparation and consumption, tool production and maintenance, and the construction of shelters.

The second structure is wishbone-shaped in ground plan and made of wooden uprights set into a foundation of sand and gravel hardened with animal fat [see photograph on next page]. In this structure we found butchered parts of mastodon and paleo-llama carcasses and evidence of hide preparation and manufactured tools, activities suggesting a public non-living area. It also is probable that this was a place for healing the sick. Eighteen probable medicinal plants were found at this site—the same species the Mapuche people, who live in the area today, use to treat various diseases. Although some of these plants grew locally, about half came from coastal environments, approximately 70 kilometers to the west. One plant can only be found in arid regions about 700 kilometers to the north. Since only the medicinal parts of the plants were found at the site, we know they could have had only one use by the Monte Verdeans.

In addition to medicinal herbs, the remains of a wide variety of edible plants were recovered from the hearths, living floors, and small pits, along with the remains of mastodon, paleo-llama, small animals, and freshwater mollusks. Aquatic plants from the freshwater marshes and lagoons of the flood plain and from brackish marshes of the river delta provided the greatest variety and, along with meat and wild potatoes, comprised the bulk of the Monte Verdeans' diet. Most of these ecological zones are located far away along the Pacific shoreline or in the Andean mountains.

The presence of exotic foods and other items at the site shows that coastal habitats provided important resources to the Monte Verde economy. But the preserved remains of wild potatoes particularly add a new dimension to the history of a food crop that has become one of the most important in the world. The presence of tuber remains at Monte Verde bears out the prediction of Russian botanists, who, in the 1930s, said that the potato originated both in Peru and in southern Chile.

The wooden artifacts excavated at Monte Verde include digging sticks, mortars, fragments of two lances, stakes, and building poles. Bone artifacts consist of a baton for striking flakes off stones, tools made of mastodon tusks, and digging and prying tools. The site shows three different stone tool technologies.

To be able to exploit this wide range of resources, the residents undoubtedly needed sophisticated knowledge as well as a division of labor. This is suggested by the separation of the site's residential from nonresidential areas and by the association of distinct activity areas and living spaces with different tool types and food remains. The distinct living structures, features, and concentrations of specific materials indicate that occupation was continuous and that some portions of the site were used more intensively than others.

The many different artifacts give evidence of a wide variety of activities carried out. Evidence also ex-

ists for specific family or social unit tasks, special purpose activities, and spatial separation between domestic and nondomestic tasks. One living space, for example, contained stone artifacts made of quartz, coupled with edible fruits and tubers from plants that grow only in brackish estuaries. This suggests that the occupants may have specialized in collecting resources from the coast. Elsewhere in the living tent, stone scrapers and pieces of animal skin were found in a hide-working zone. The internal division and size of the tent suggests that a large group of people had a mixed hunting and gathering economy that focused on many different ecological zones.

All this evidence reveals a much more complex social and economic organization than was previously expected of early New World cultures. A long sequence of radiocarbon dates on the different materials from the site place the Monte Verde II occupation at about 12,500 B.P.

(continued)



The architectural foundation of a wishbone shaped hut dated about 12,500 years ago and associated primarily with the remains several medicinal plants. A residential tent was located about 30 meters away, suggesting that this was a medicine hut. Photo, courtesy of Tom Dillehay.

Monte Verde I

In the deepest levels of Monte Verde, separated from the later 12,500 year-old settlement and buried in a different area of the site, we found a possible earlier occupation, which we called Monte Verde I. Here we found twenty-six stone tools and three burned clay features. Radiocarbon dates placed this possible occupation around 33,000 years ago, a remarkably early date for New World settlement. Although the geology is intact, the radiocarbon dates are valid, and the human artifacts are genuine, I hesitate to accept this older level without more proof and without evidence of sites of comparable age elsewhere in the New World.

There is no question that the younger 12,500 B.P. Monte Verde II occupation represents a human settlement practicing a generalized economy throughout most of the year. The archaeological evidence suggests that the settlement was formed by a group of exploratory or incipient colonizers who lived along the banks of the small stream. Although few contemporaneous sites have been found in the Americas, it is probable that the Monte Verdeans were part of a low-density colonizing population adapted to a cool, temperate, wetland-and-forest environment in times of advanced deglaciation.

Conclusion

In the end, Monte Verde has made us question the notion that all Ice Age people were nomadic big-game hunters, since the area there was probably occupied throughout the year by at least a portion of its inhabitants who gathered a wide variety of plant and animal foods. The site is one of the richest excavated in the New World, and the interdisciplinary team that first worked there continues their work, albeit with new kinds of investigations and new kinds of outreach activities. As the result of changes in the field of archaeology and changes in our own awareness of the indigenous peoples' interest in this and other archeological sites, we have begun to share the information we have collected from the site with peoples living in the area. In turn, we have actively sought their interpretations of the site and their opinions of our interpretations. This new dialogue has significantly enhanced our understanding of Native American concerns and of the archeological record, but it has also enriched our relationships with indigenous communities.



Mapuche crew with Dillehay (center) excavating test pits near Monte Verde. Photo, courtesy of Tom Dillehay.

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