

page from the Nebraska Earth Science Education Network that describes efforts to analyze the diet and environment of the Chinchorro.

<http://www.100megsfree4.com/farshores/amummy02.htm> - An update on "The World's Most Ancient Mummies."

<http://www.uta.cl/masma/> - The Web site of the Museo Arqueologico San Miguel de Azapa. Although it's in Spanish, it has many good illustrations about the Chinchorro and other readily understandable information.

Other Resources

For students:

Allison, Marvin J. "Chile's Ancient Mummies." *Natural History Magazine*. October 1985.

Buell, Janet. *Ice Maiden of the Andes*. Twenty-First Century Books, 1997. (Though not specifically about a Chinchorro mummy, this is an intriguing look at another recently discovered South American mummy).

Getz, David. *Frozen Girl*. H. Holt, 1998.
(see the note to the book by Janet Buell)

McNair, Sylvia. *Chile (Enchantment of the World. Second Series)*. Children's Press, 2000.

Winter, Jane K. *Chile (Cultures of the World)*. Benchmark, 1994.

For adults:

Arriaza, Bernardo, and Verano, John. *Beyond Death : The Chinchorro Mummies of Ancient Chile*. Smithsonian Institution Press, 1995.

Bruhns, Karen Olson. *Ancient South America (Cambridge World Archaeology)*. Cambridge Univ. Press, 1994.

Meighan, Clement W. and True, D. L., eds. *Prehistoric Trails of Atacama : Archaeology of Northern Chile*. Institute of Archaeology, the University of California, 1980.

Pringle, Heather. *The Mummy Congress: Science, Obsession, and the Everlasting Dead*. Hyperion, 2001. (On the Third World Congress on Mummy Studies held in Arica, Chile)

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Honoring the Dead

Anthropologists and archaeologists have learned about many peoples who lived along the Pacific Coast of South America in ancient times, but the culture known as the Chinchorro stands out. Although they were primitive in many ways (they had no ceramics, no wheel, no metals, no system of writing), they developed a tradition of funeral practices that is practically unique in the world and astonishing in its level of sophistication. This Stone Age people created a method of making mummies that even outdid the ancient Egyptians—they would remove the brain and other organs from the corpse, fill the interior of the body with various materials—sticks, fibers, wool, grass, ashes, and pieces of baskets—put a wig on the head, place a clay mask over the face, and stain the body with manganese. The bodies were wrapped with reed mats or capes or animal skins and buried with all sorts of objects, including flutes, necklaces, and ornaments. And unlike the Egyptians, who practiced mummification almost exclusively on adults, the Chinchorro mummified dead children. Indeed, they even mummified stillborn infants. The entire elaborate ritual suggests an unusual reverence for the dead—or, to look at it another way, a deep veneration for life.

Vocabulary

Chinchorro – A Stone Age people who lived at the edge of the Atacama Desert in what is now Chile c. 7000 B.C.

CT scan – An image produced by a special medical instrument that combines X-ray and computing equipment. CT (computed tomography) scans were used to examine Chinchorro mummies.

exostosis – A growth on the surface of a bone. In the Chinchorro, it was seen as a buildup of bone within the ear canal, which can lead to hearing loss.

manganese – A hard, brittle, metallic element that resembles iron. The Chinchorro used black manganese to stain the bodies of their mummies.

Pre-Columbian – The name given to the period before the arrival of Columbus and the Spanish in the Americas in 1492.

Stone Age – An early period of human culture characterized by the use of stone tools. The Chinchorro were a Stone Age people.

Important People

Arriaza, Bernardo – Physical anthropologist from the University of Nevada who is an expert on the Chinchorro.

Beckett, Ronald – Chairman of the department of

Cardiopulmonary Sciences and Diagnostic Imaging and co-director of the Bioanthropology Research Institute at Quinnipiac University. He pioneered techniques for X-raying mummies in the field and used them to study the Chinchorro, as well as other South American mummies.

Conlogue, Jerry – Co-director of the Bioanthropology Research Institute at Quinnipiac College.

Fletcher, Joann – Authority on Egyptian mummies who used her expertise to study the mummies of the Chinchorro. Member of the Bioanthropology Foundation.

Santoro, Calogero – Chilean archaeologist with the Museo Arqueológico San Miguel de Azapa (MASMA) at the Universidad de Tarapaca in Arica, Chile; excavator of Chinchorro remains.

Standen, Vivien – Physical anthropologist with MASMA. Specialist in Chinchorro culture.

Important Places

Arica – City on the Pacific coast of Chile just south of the Peruvian border; capital of Arica province. Nearby is an ancient Chinchorro burial ground.

Atacama Desert – One of the driest places in the world, a desert that extends 600 miles from southern Peru through northern Chile.

Important Dates

7000 B.C. – Date of the earliest Chinchorro mummies, which were dried naturally in the desert sand.

6000 B.C. – After a thousand years of evolution, the Chinchorro have an established elaborate mummification ritual. A huge drought strikes the Andes region of South America, and an explosion of settlements occurs along the Pacific Coast.

1915 – Discovery of the first Chinchorro mummy.

1983 – Archaeologists uncover the ancient Chinchorro burial ground near Arica, Chile.

Things to Think About

• In the episode, Dr. Bernardo Arriaza says that a major reason the Chinchorro are so little known is that they left very little in the way of cultural materials, such as buildings or pottery. What problems do archaeologists face when they study ancient peoples who left few material traces? Can the absence of such evidence cause researchers to underestimate the abilities of an ancient people? What other kinds of evidence—besides buildings, ceramics, and the like—do archaeologists rely

on to learn about vanished cultures?

• According to Joann Fletcher, one of the most amazing things about the Chinchorro mummies is that so many of them are children, which was not the case in other ancient cultures, where children usually weren't even given a decent burial. What do you think were the motives behind the Chinchorro mummification of children? Do you agree that this indicates that women were the primary practitioners of mummification?

• As the episode indicates, the Chinchorro were a violent people who may have practiced cannibalism, but their mummification practices suggest a certain level of spirituality. What conclusions can you draw about their notions of the sanctity of life?

• As one of the archaeologists in the episode points out, one of the main problems in dealing with Chinchorro mummies is not excavating them, but preserving them. How are the Chinchorro mummies preserved today? In what ways do archaeologists in general protect the discoveries that they make?

• The archaeologists in the episode discovered evidence that the Chinchorro may have eaten parts of their dead. But they speculate that the motive behind this practice—which to us may seem gruesome—was actually one of reverence. In what way do you think mummification can be interpreted as a method of venerating the dead—of keeping them alive, as it were? And how might eating the dead be seen as a way of honoring them?

Internet Resources

<http://www.archaeology.org/online/features/chinchorro/index.html> – An article on the Chinchorro mummies from Archaeology entitled “Making the Dead Beautiful: Mummies as Art,” by Bernardo Arriaza, Russell A. Hapke, and Vivien Standen.

<http://www.mummytombs.com/mummylocator/group/chinchorro.htm> – A page on the Chinchorro mummies, with information on the article mentioned above in Archaeology and another piece in Discover Magazine.

http://www.unlv.edu/Colleges/Liberal_Arts/Anthropology/arriazab/chinchorro-jpgs.html – Photos of Chinchorro mummies taken by Bernardo Arriaza.

http://www.unlv.edu/Colleges/Liberal_Arts/Anthropology/arriazab/ – A page about Dr. Bernardo Arriaza, with some pictures of his finds. <http://tlc.discovery.com/tlcpages/mummies/time2.html> – A page on “The Chinchorro Mummies of Chile.”

http://www.uta.cl/masma/patri_edu/chinchorro.htm – A page entitled “La Cultura Chinchorro.” Written in Spanish, it has some excellent pictures.

http://nesen.unl.edu/teacher/Research_Experience/Chinchorro.htm – A