

# From Bare Bones to Mummified

INSIGHTS FROM  
AN INCA  
CEMETERY  
STORY AND  
PHOTOGRAPHS  
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Archaeologists moved quickly with the astonishing discovery of an Inca cemetery underneath the village of Tupac Amaru, located six miles outside of Lima, Peru. Plans to provide running water and electricity for the village residents were postponed for urgent salvage excavations to preserve the human remains and associated artifacts buried in the cemetery that is known as Puruchuco-

Huaquerones. Running water and electricity would not come to Tupac Amaru for several years, but the majority of the archaeological material was recovered.

When Peruvian archaeologist Guillermo Cock and his team began the salvage excavations in 1999, they hardly anticipated uncovering one of the most important samples of Inca mummies and skeletal remains known to date. The villagers collaborated with the Peruvian archaeologists in removing more than 1,200 burials, many of which contained more than one person. Archaeologists estimate that the remains of some 2,200–2,400 people are buried in the recovered bundles, which represent an invaluable cross-section of the Late Horizon (A.D. 1438–1535) Inca society. Cock then assembled a team of physical anthropologists to study the biological information contained in the remains.

The human remains currently being studied range from bare bones to completely mummified individuals wrapped in large textile bundles. Archaeologists frequently found weaving baskets, dyeing materials and other artifacts associated with the production of textiles near and inside the mummy bundles. Such juxtapositions led Cock and his



Due to water damage and postdepositional conditions, the textile wrappings of many burials deteriorated before excavation. The absence of the textile wrapping permitted archaeologists and anthropologists to study the contents of the bundles. In this artist's rendition, this adult female skeleton was interred in a seated and flexed position with a spondylus shell placed on her head.

colleagues to hypothesize that the people buried at Puruchuco-Huaquerones were members of a community in the eastern part of the Rimac Valley that specialized in the manufacture of textiles.

The Inca community that once used the Puruchuco-Huaquerones cemetery was likely marked by class differentiation as signaled by the different mortuary practices found at the site. For example, among other variables are the number of individuals included in a burial, the spatial and temporal planning of the cemetery, and offerings found inside and outside the mummy bundles.

Although the Inca treatment of their royal mummies in Cuzco is recorded in Spanish colonial documents and in iconography, there is little information about the health, mortuary practices, and ritual beliefs of the subjects of the Inca Empire living outside of the empire's center in Cuzco.



A resident of Tupac Amaru working on the project lifts the reed matting covering this *falsa cabeza* (false head) mummy bundle. The dry desert conditions on the coast of Peru preserved many of the delicate organic internal and external offerings accompanying the burials, such as weaving baskets, wooden implements, textiles and the reed matting pictured here.

The human remains from Puruchuco-Huaquerones will provide new information about the people living under Inca rule prior to and during the Spanish conquest.

My research is concerned with the health of the people and how the Inca Empire's sociopolitical environment influenced patterns of health among different social classes and age groups. Since the sample from Puruchuco-Huaquerones is diverse, it is possible that people from different social statuses experienced differing levels of health, perhaps owing to unsanitary and crowded conditions or restricted access to nutritious foods.

Other specialists are simultaneously investigating different aspects of Puruchuco-Huaquerones' population. Jocelyn Williams from the University of Calgary is exploring the question of the community's diet. This issue is particularly salient because the oscillations of El Niño and La Niña may have impacted the dietary choices available to the people from Puruchuco-Huaquerones. Williams is extracting and analyzing several minerals and stable isotopes from the



Excavations in the schoolyard of Tupac Amaru uncovered many mummy bundles buried inside and adjacent to pre-Inca structures. The archaeologists were often surrounded by the daily activities of children and teachers, including the occasional stray soccer ball.

bones and tissues of the human remains. Her results may reveal how members of this community responded to climatic changes and/or social and political upheaval.

Another intriguing question is that of the health, growth, and development of children, a group rarely represented in most archaeological excavations because the bones of infants and children are frail, small, and often not preserved. Remarkably, a large percentage of the human remains from the cemetery belong to children and infants. Seizing a rare opportunity, Cathy Gaither of Tulane University is measuring the long bones of these children and comparing her measurements with X-rays of the children's dental development. She is using her results to gauge the health, growth, and development of the youngest residents of Puruchuco-Huaquerones.


Susan Haun from the University of Pennsylvania is exploring what certain traits of the skeleton and dentition, along with DNA, can tell us about the identity of the people of Puruchuco-Huaquerones. Her research aims to reconstruct population movements and corroborate ethno-historical and archaeological data about interactions between different populations under the control of the Inca Empire.



From this view on a pile of backdirt overlooking Tupac Amaru, the rocky hillside surrounding the village can be seen. The close and crowded conditions of the village posed significant challenges for the archaeologists and residents of Tupac Amaru. The archaeologists and village workers excavated in the streets, in the schoolyard, and in a park at the center of the village in order to minimize the impact of the salvage operation.

Trisha Biers of the San Diego Museum of Man and San Diego State University is evaluating a particular type of burial by contrasting the biological information (age, sex, health) with information about mortuary behavior, such as number and quality of grave offerings or placement of the burials. Her research may reveal patterns in how the dead were treated and provide insights into the religious belief system(s) of the members of the Puruchuco-Huaquerones community.

The contributions of these physical anthropologists represent a large portion of the current work at Puruchuco-Huaquerones. However, further collaboration is taking place with Peruvian archaeologists and conservators who are analyzing the site's textiles, organic materials, metals, and ceramics. We are hopeful that our combined results will greatly illuminate life on Peru's central coast during the Inca Empire.

While our research continues, the excavations have ended, and the people of Tupac Amaru are getting their running water and electricity. Cock and his team of archaeologists anticipate additional salvage excavations in spring 2003. Hopes are high that the Puruchuco Museum, located adjacent to the village, will be enlarged and modernized to accommodate the important collection from Puruchuco-Huaquerones. 

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