

Human Remains at Caral, Peru: The Earliest Human Sacrifice?

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Abstract

Caral (5000-3000 BP), South America's largest pre-ceramic complex, is located in the central coast of Peru. Its many pyramids, squares, and specialized residential units are currently in study. Despite the fact that no cemetery has been found for the city yet, the skeletal remains of a young man were found buried on the top the largest pyramid of the «sacred city.» This unusual discovery poses many questions. This paper presents the results of the study of this body, as well as some ideas about its relevance for Andean archeology.

Introduction

Caral is the largest pre-ceramic city in the central coast of Peru. Located in the valley of Supe – about three hours North of the city of Lima, it has been radiocarbon dated to the Late Archaic Period (5000 – 3000 BP; Shady, Haas, and Creamer 2001). Caral's many pyramids, squares, and specialized residential complexes seem too advanced for its antiquity. This situation has raised many questions to Andean archeologists, and ongoing research led by Dr. Ruth Shady (PEACS: *Proyecto Arqueológico Especial Caral - Supe*), is trying to help understand better Caral's society.

From the point of view of physical anthropology and paleopathology, the scarcity of human remains found so far at the site enhances the relevance of any study on this regard despite their size. Indeed, many monuments have been archeologically excavated and tested, but very few skeletons have been found. This situation is partly explained by the emphasis given by the archeological survey to the largest monuments. On the other hand, this negative evidence most probably represents the existence of a burial sector or cemetery that has yet to be found for the city. Taking into consideration the previously explained background information, the recovery of a nearly complete

human skeleton buried almost on top of the largest pyramid at the site becomes indeed a remarkable find. Naturally, this discovery has raised many questions. This paper presents the results of the study of this body, as well as it presents some ideas about its importance in understanding Caral's society.

Materials

Caral – 0391: Skeletal remains recovered from the largest and tallest pyramid (*Pirámide Mayor*), now housed at the project's archeological laboratory located in downtown Lima. The archeologists found the skeleton while studying the intact ground filling of a room's floor atop the pyramid. The body was covered with heavy stones of different sizes. No tomb had been purposely excavated; the body was originally placed *in situ* during the construction of the building. Although no clear evidence of clothing or paraphernalia were found, some remains of hair showed small braids (Machacuay, 2002).

The skeleton was found in a flexed or 'fetal' position, lying on its left side, facing down, and with the arms extended and crossed on the back (Fig. 1). Some small bones, such as



Fig. 1 - Reconstruction of the position of the body.

some cervical vertebrae, were displaced towards the lower part of the body; while others were missing, such as some hand phalanges. Surprisingly, the archeologists found some matching phalanges inside some small wall niches of the room where the body had been placed (Machacuay, 2002). The skeleton was in very poor state of preservation, very fragmented and brittle. Standard laboratory materials for

cleaning, restoration, inventory, anthropometry, ectoscopy, photography, radiology, and curation were used in its study.

Results

The human remains found on top of the *Pirámide Mayor* belong to a 20 to 25 year-old male of $158 \pm 2,6$ cm of stature. Most of the numerous fractures observed on the skeleton are clearly post-mortem; mainly on fragile areas of its left side. Close observation of the skull and teeth demonstrated cribra orbitalia and enamel hypoplasia. Skull perimortem fractures were evidenced, particularly a small oval-shaped one on the frontal bone (Fig. 2). An ante-



Fig. 2 - Frontal fracture.

mortem alveolar microfracture with remodeling of the exposed trabeculae was observed also. In the post-cranial skeleton, a severe degree of osteoarthritis was observed on some thoracic and lumbar vertebrae. On the feet, symmetrical subchondral aseptic necrosis of bone tissue was observed on several tarsal and metatarsal bones, a condition compatible with osteochondritis dissecans (Fig. 3). Finally, water exposure



Fig. 3 - Osteochondritis dissecans.

was demonstrated through CT-scanning. Permeation of mud was observable into some vertebral bodies, leaving clear crescent shaped air-fluid levels (Fig. 4). No cut marks were observed on the whole skeleton.

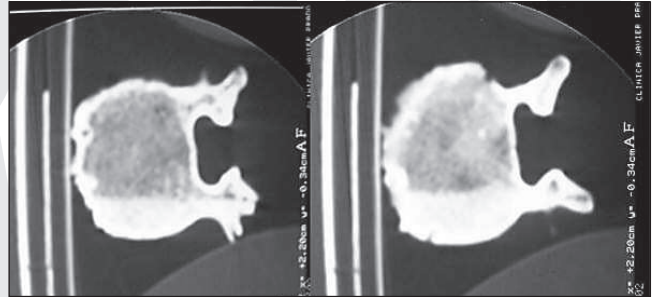


Fig. 4 - Air/fluid-like level in vertebrae due to mud permeation.

Discussion

The archeological studies performed at Caral in the last ten years provide hard evidence of the development of a previously unknown complex society in the Late Archaic Period of the Andean chronology. Despite their lack of pottery or competing neighbors, it is argued that Caral reached a state-level of organization around 5,000 years ago (Shady, 2003c). They did so while trading goods as middlemen between the two poles of the same valley: fish from the coast for cotton and other fibers from the valley, the highlands, and beyond. The resulting wealth was then transformed into monumental construction by a pristine ruling elite. Besides produce, labor fueled through religion was Caral's currency. Evidence of the ritualized burning of offerings is found everywhere at the site. This pyramid-building religious system worked successfully as Caral's social glue for over a thousand years. While this hypothesis remains undisputed, physical anthropological evidence of such a stratified society is still missing, mainly due to the lack of a significant number of human remains to describe (Shady, 2003b).

The skeleton excavated from the top of the *Pirámide Mayor* represents a clear evidence of a human person been offered, most probably through sacrifice, as part of a ritualized construction.

Human sacrifice has a long tradition in the Andes. Although it has been most clearly demonstrated among the Moche, its practice can be tracked down to older societies, such as Gallinazo and Sechín. More recently, human sacrifice took the form of *capac uchas*, during the rule of the Incas (Benson and Cook, 2001). The case presented on this paper then provides the remotest evidence of this tradition in this part of the world, and can thus provide an insight into the basic elements of the Andean religion and society. The demonstration of repetitive trauma in the vertical axis – vertebral osteoarthritis and osteochondritis dissecans – is compatible with the chronic carrying of heavy loads (Ortner and Putschar, 1981). This immediately poses the intriguing hypothesis of a construction worker being sacrificed at the completion of their work. The severity of bone necrosis, particularly circumscribed to his feet, suggests that this person could have been handicapped at death. Osteochondritis dissecans occurs in athletes and people that walk long distances, carrying of not heavy loads (Hixon and Gibbs, 2000). Therefore, another hypothesis to consider is that this person could have been a long-distance messenger or carrier. Osteochondritis dissecans'

occurrence is not documented in the Andean anthropological record, and therefore should be assessed as more skeletons are found in the future (Verano and Lombardi, 1999).

Archeology attests ritualized construction building, remodeling, and burying as a means for social cohesion prescribed by Caral's religion (Shady, 2003a). Then, the sacrifice of a devoted mason and/or carrier could have played an important role in a hypothetical pyramid's dedication ritual. Allison and Gerszten (1998) evidenced contemporary burials at Bandurria Beach, showing that people were buried lying on their sides with the legs folded and their hands under their heads. In this case, the factual evidence argues for a burial against the victim's will. The observation of arms crossed behind the back, perimortem skull fractures, and finger mutilations, suggests this person could have been a prisoner. This view then raises the issue of possible enemies and even slaves taken by the people of Caral. There is still no evidence for such a situation beyond this isolated case. Although mummification occurs naturally in the Peruvian coast, Caral is located in the southernmost area on which *El Niño* heavy rains happen every decade or so. This fact causes mummies to be less frequent in area situated North to the city of Lima. Accordingly, the taphonomic processes revealed through CT-scanning in this study are very important. The description of mud permeation inside some vertebral bodies not only attests past rain spells but also pinpoints the body position. Under similar conditions, any solidified air-fluid level inside a given vertebra could reveal the position of the body's skeletal axis.

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