


REPORT

An Enigmatic Manteño Burial from Buen Suceso, Ecuador, AD 771–953

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Abstract

Burial 10 is a unique Manteño (AD 650–1532) burial from Buen Suceso, Ecuador, dating between AD 771 and 953. This burial included the remains of a young female, pregnant at the time of death and buried with an elaborate array of goods, including anachronistic spondylus ornaments, green stones, and shell eye coverings. Perimortem trauma, including a cranial fracture and cutmarks on hand bones, perimortem removal of the hands and left leg, and other body manipulation suggest she was sacrificed, a rare event for coastal Ecuadorian peoples.

Resumen

El Entierro 10 se ubica en el sitio Buen Suceso, Ecuador que pertenece a la tradición Manteño (650–1532 dC). El entierro data entre 771 y 953 dC. Incluía los restos de una mujer joven, embarazada en el momento de la muerte y enterrada con una elaborada variedad de bienes que incluyen adornos de spondylus, piedras verdes, y ojos cubiertos por conchas. Además, algunos de los adornos de spondylus se produjeron originalmente durante la tradición Valdivia (3800–1450 aC), vinculando este entierro con un pasado más profundo. El trauma perimortem y otras manipulaciones corporales, incluida la amputación de ambas manos y la pierna izquierda, sugieren que el individuo fue sacrificado.

Keywords: burial; Ecuador; spondylus; sacrifice

Palabras clave: entierro; Ecuador; spondylus; sacrificio

In this report, we present a Manteño (AD 650–1532) burial dating between AD 771 and 953 from coastal Ecuador. This burial is enigmatic both because it contains the remains of a young female and perinate, as well as spondylus (*Spondylus princeps*) ornaments from various cultural traditions and periods, and because of its mortuary body treatment, including the perimortem removal of the hands and left leg. We hypothesize this individual was treated thusly as part of a sacrificial ritual or other punitive measure.

Archaeological Context

The Manteño tradition is found along 350 km of Ecuadorian coast, united by broad similarities in material culture and sociopolitical organization, though regional differences have led to the identification of three regional variants: the northern Manteño del Norte, the southern Huancavilca, and the Punáes of Isla Puná (Figure 1; see Bushnell 1951; Estrada 1957; Jijón y Caamaño 1952; McEwan and Delgado-Espinoza 2008). In general, these coastal peoples invested in agriculture and public architecture, were expert seafarers, and participated in various political and ritual activities (Estrada 1957;

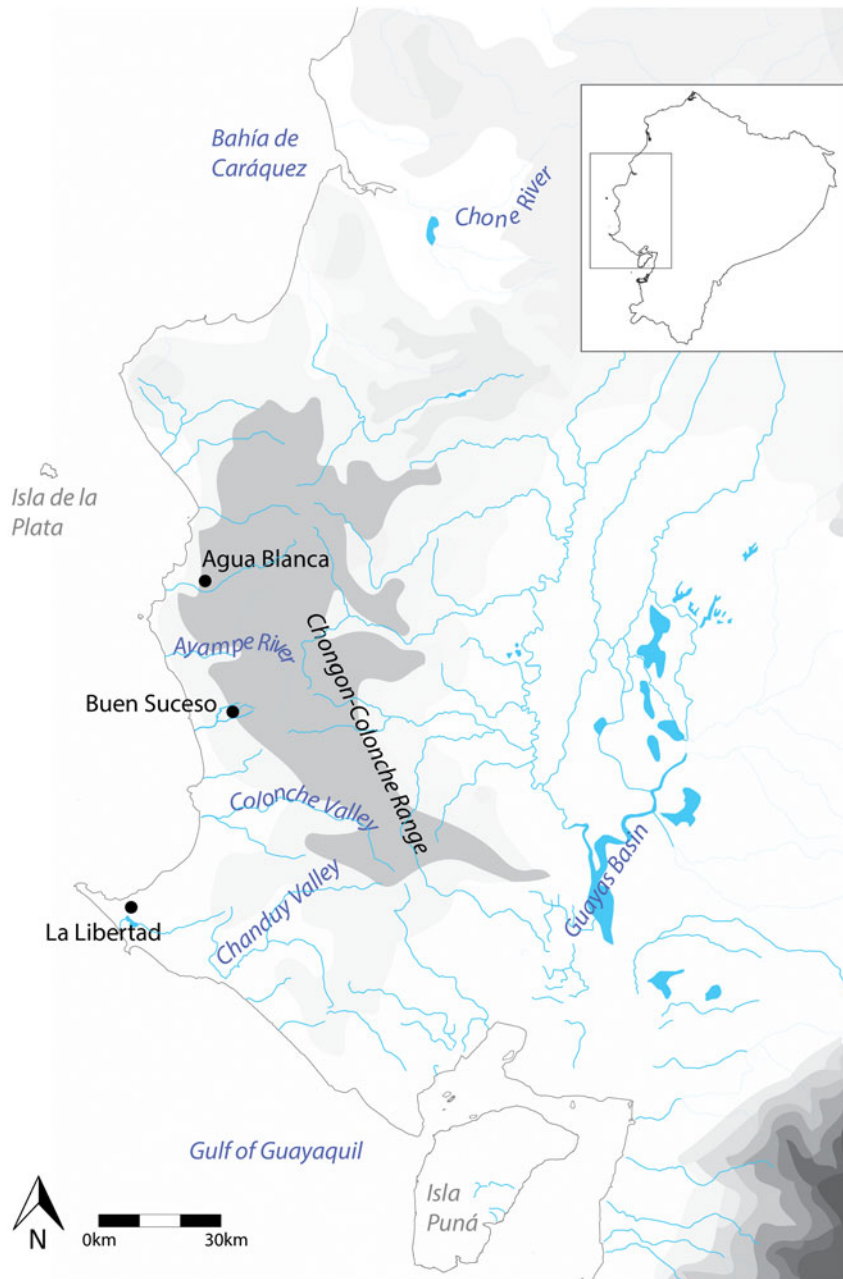


Figure 1. Map of coastal Ecuador showing Buen Suceso and other Manteño sites.

McEwan and Delgado-Espinoza 2008). Spondylus shell collection and long-distance exchange were elaborated; people created small beads, known as *chaquira*, out of the white part of the spondylus and traded the more valued colorful parts of the shell to the south (Carter 2008; Estrada 1957).

Manteño del Norte burials were in bell-shaped pits or ceramic urns, accompanied by bowls, animal bone, copper, and other secondary burials and occasionally adorned with spondylus (Currie 2001; Delabarde 2015; Estrada 1957:34; Mester 1990:139–147; Norton et al. 1983; Stothert and Cruz Cevallos 2001; Ubelaker 1981). Tombs were frequently covered with stone slabs or gates (Holm 1963; Saville 1910) to facilitate interaction with the dead. To the south, Huancavilca burials tended

to be in bell- or boot-shaped pits containing numerous individuals in extended primary burials and secondary burial bundles (Bushnell 1951:97–102; Stothert and Cruz Cevallos 2001).

Methods

Buen Suceso, primarily a Valdivia period site (3750–1425 BC; Rowe and Duke 2020), is in a liminal zone between the Huancavilca and the Manteño del Norte traditions (Figures 1 and 2). In 2006, a survey identified evidence of Manteño occupation in the valley, including house mounds, middens, and

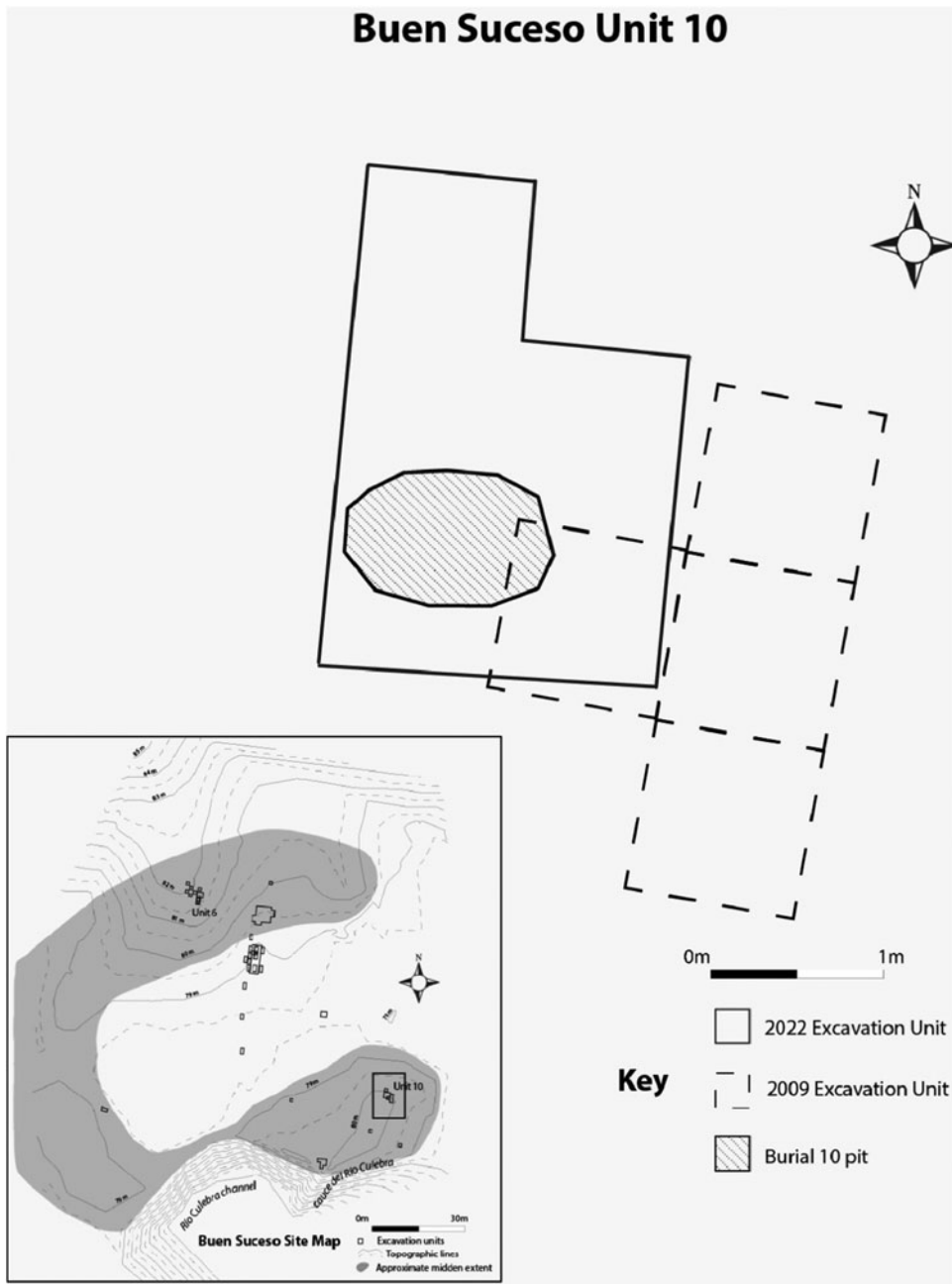


Figure 2. Excavation map of Buen Suceso showing Unit 10 where Manteño burials were located.

water management features, with elements of both the northern and southern traditions. Local residents reported eroding graves with Manteño artifacts, and several Manteño burials were discovered in 2009. In 2022, we digitally mapped and excavated nine 1 × 1 m units where these burials had been previously identified (Figure 2). Excavations followed arbitrary 10 cm levels in the absence of stratigraphic changes to control for depth and context. Soil was subsequently passed through 1 mm screens.

Burials and artifacts were mapped in situ and removed carefully for analysis in the lab. Burial type was designated as primary or secondary, based on anatomical orientation and the presence of skeletal elements. Burial orientation and body positioning were recorded. Photographs were taken of each level with a Nikon D15000 camera and a DJI Mini drone.

Material Analysis

All artifacts were measured and weighed with digital tools. Samples selected for destructive analysis were weighed, photographed, and exported to the United States (INPC export permit No. INPC-DTZ5-2022-0194-O) for radiocarbon analysis at the University of California Irvine Keck Carbon Cycle AMS Facility (UCIAMS). Results were calibrated in OxCal v4.4 (Ramsey 2021) using the SHCal20 atmospheric curve (Hogg et al. 2020).

Skeletal Analysis

Age was based on skeletal development for fetal remains (Cunningham et al. 2016:105) and, for adult remains, on dental wear (Murphy 1959) and pubic symphyseal change (Buikstra and Ubelaker 1994:23–24). Sex estimation was based on pubic morphology (Buikstra and Ubelaker 1994:17; Phenice 1969). The paleopathology we observed included cribra orbitalia and porotic hyperostosis, based on the presence and coalescence of pitted lesions in the eye orbits and parietals, respectively (Buikstra and Ubelaker 1994:120–121); linear enamel hypoplasia based on horizontal disruptions to dental enamel (Goodman and Rose 1990); and periosteal reactions and osteomyelitis based on the presence of reactive bone and cloaca (Ortner 2011). Traumatic fractures and cutmarks (identified as V-shaped grooves) were counted and measured and recorded by skeletal element (Ortner 2008). Trauma timing was determined as antemortem (based on bony remodeling), perimortem (evidence of bony deformation or the presence of concentric or radiating fractures), or postmortem (based on color differences, jagged fracture edges, or no evidence of deformation or remodeling; Galloway et al. 2014; Ortner 2008). All trauma was observed microscopically using a Dino-Lite Pro AM413T microscope camera.

Results: Burial 10

Burial 10 was in a supine and extended position with the head to the west facing south and the lower body to the east (Figure 3). Fetal cranial fragments were found in the pelvic area. The hands and left leg were not recovered. The distal radii and ulnae were under and behind the pelvis in the anticipated anatomical position. Isolated hand phalanges were recovered from other parts of the burial, but no carpals or metacarpals were found. The right femur was disturbed by rodent activity and recovered in 2009 during earlier excavations, but the lower right leg was manipulated in antiquity so that the plantar surface of the foot was on the lower pelvis. The rest of the burial was undisturbed by modern human activity, although a rodent burrow ran by the right leg and thorax. Radiocarbon analysis of a first molar returned a date range of AD 771–953 (Table 1).

Two ark clam shells (*Anadara* sp.) covered the eye orbits, next to a large green clay stone and several ceramic fragments on the forehead (Figure 3). Crescent-shaped spondylus *mascaras* were located around the body (Figure 3). Two rectangular spondylus pendants were near the left shoulder and hip, along with nine small spondylus beads or *chaquira*, two oblong spondylus beads, and three obsidian blades. Two additional *mascaras* were found in disturbed areas of the burial (Figure 4). Another human cranium was in the burial pit, near the left shoulder, possibly as a grave offering. Finally, a limestone star-shaped mace (Figure 5) was recovered 1 m north of the burial, at the interface with the plow zone.

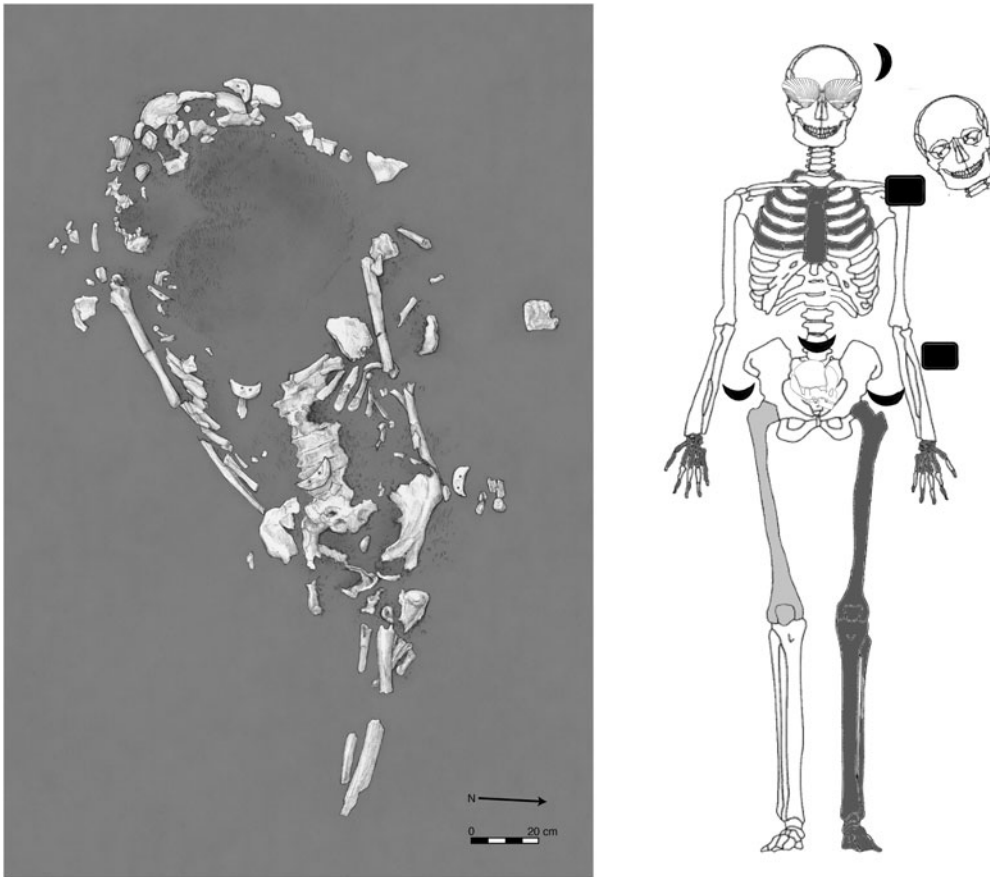


Figure 3. Drawing of Burial 10 in situ during excavation by Kathryn Killacky and schematic showing missing elements (dark gray), disturbed elements (light gray), and the location of *mascaras* (crescents) and pendants (squares).

A burnt offering was later placed in the thoracic cavity. A radiocarbon date from this burnt material suggested this occurred between AD 991 and 1025 (Table 1). The sternum, the anterior upper ribs (left and right ribs 1–4), and upper thoracic vertebrae (T1–T7) were not recovered due to taphonomy or removal/disturbance during placement of this burnt offering.

Lab analyses indicated that Burial 10 was female and was 17–20 years old at the time of death, based on partially erupted third molars and minimal dental wear on all teeth. Fetal cranial fragment

Table 1. Radiocarbon Dates from Burial 10.

Reference, Lab #	¹⁴ C ± σ Yrs BP δ ¹³ C-corrected	Cal AD Yrs ± 2σ	Context	Description
UCIAMS 265912	1255 ± 15 BP	AD 771–953 AD 771–819 (43.7%) AD 838–894 (48.1%) AD 940–953 (3.6%)	OSE-M-2M-4 Unit 10-B10	Burial 10 tooth
UCIAMS 265964	1075 ± 15 BP	AD 991–1025 AD 991–1025 (95.4%)	OSE-M-2M-4 Unit 10.5e/10.6e Level 3-B10	Charcoal from dark staining in thorax of Burial 10



Figure 4. Grave goods associated with Burial 10, including *mascaras* (C, G, H, R, S, T), spondylus pendants (Q, CC), green stone (A, B, E), obsidian (F, O, P), *chaquira* (I, J, N, U, V, W, X, Y, Z), other beads (K, M, AA, BB), shell and spondylus fragments (L, DD, EE, FF, GG), ceramic fragments (HH, II, JJ), and the crab claw (D). (Color online)



Figure 5. Limestone mace associated with Burial 10. (Color online)

development suggested seven to nine months gestational age. Trauma analyses indicated perimortem blunt force trauma to the frontal bone based on the presence of a concentric fracture with deformed edges, although the fragmentation of cranial bones made this difficult to confirm. There were three cutmarks on the palmar surface of a hand phalanx near the proximal base. Other skeletal pathology included dental plaque and caries and slight lipping on the lumbar vertebrae.

The additional cranium was estimated as an older individual, 25–35 years old at the time of death. No evidence of trauma was identified on the cranium, although preservation of these remains was poor. Our attempt to radiocarbon date a tooth from this cranium was unsuccessful.

Significance of Burial 10

We suggest the following sequence of events around the time of death of Burial 10. First, Burial 10 received a blow to the head (intentional or accidental) and died. Before burial but around the time of death, her hands and left leg were removed. She was then buried in an earthen pit with a mix of Manteño and earlier offerings. Later, the burial was reopened, whether through accidental discovery or because the spot was marked, and a burnt offering was placed on her chest. Although speculative, these activities seem the most parsimonious interpretation of the current evidence.

The mortuary stylings of Burial 10 mark this burial as special. The quantity of artifacts is dramatically higher than at other Manteño burials at Buen Suceso ($N=6$ adults). Although one other Manteño burial included *chaquira*, none were accompanied by *mascaras* or obsidian. The body positioning also differed; the other Manteño burials were flexed or secondary burial bundles. No other burial showed evidence of perimortem trauma or limb removal.

The perimortem cranial trauma and limb removal suggest that Burial 10 may have been sacrificed or treated in a violent manner around the time of death. Evidence for human sacrifice in coastal Ecuador is rare but not entirely absent. European chroniclers mentioned that human sacrifice occurred when a local leader died or to ask favors from local deities (Benzoni 1962 [1572]; Cieza de León 1971 [1533]). Burial 10 may have been sacrificed as part of similar rites. Although not directly associated, the limestone mace could have been wielded for this purpose. Similarly, Manteño burials from Puerto López, north of Buen Suceso, contained multiple individuals, including isolated crania (Currie 2001). Although the additional crania did not show evidence of violence, their status as burial offerings, rather than central figures, suggests violent treatment. The additional cranium found with Burial 10 mimics this; perhaps both Burial 10 and the extra individual met violent ends.

However, the removal of hands and left leg from Burial 10 is quite distinct from other mortuary customs in coastal Ecuador. Dismemberment of individuals is rare, with only one suggested case from the southern coast (Marcos 1988:163–165; Zeidler 2001). The positioning of Burial 10's wrists under and behind the pelvis indicated that the hand bones were removed before burial, because the anatomical position of the pelvis was undisturbed. It also suggests that the wrists were tied at the time of burial. Similarly, the left ilium and acetabulum were present and undisturbed, but no left leg bones were present. It is unlikely that these elements could have been removed after burial without altering the anatomical position of the pelvis due to the superposition of the pelvis, leg, and wrists. The removal of these limbs was likely part of the symbolic punishment and interment of this individual.

Although *chaquira* and rectangular spondylus pendants with Burial 10 are common in Manteño contexts, the *mascaras* are associated with Valdivia, a culture preceding Manteño by nearly 2,000 years (Zeidler 1991). These artifacts may have been encountered by Manteño residents of Buen Suceso (given the significant Valdivia occupation of the site). However, to accumulate so many artifacts required purposeful collection and curation before inclusion in this burial. The green clay stone with Burial 10 also recalls earlier times; green stone in Valdivian burials represented a link between death and fertility (Stothert 2003) and is less common in Manteño burials. Interpretation of this burial must ultimately consider these repeated emphases and ties to the past to understand the reasons for this enigmatic burial.

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Data Availability Statement. Data and photos are available on request.

Competing Interests. The authors declare none.

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