

**A CASE STUDY OF AN INFANT URN BURIAL
IN THE NECROPOLIS OF EL CAÑO**

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1. BACKGROUND OF EL CAÑO

El Caño is located in the province of Coclé in the Republic of Panamá. It lies along the banks of the Rio Grande on the alluvial flood plains of the Bay of Parita (Mayo and Mayo 2013, 3-4). It was originally excavated by A. Hyatt Verrill in 1926. Verrill, working with the Museum of the American Indian, Heye Foundation, in New York, was searching for artifacts to exhibit. Verrill discovered what he called “The Temple of a Thousand Idols” between the Rio Grande and the Rio Carlo in Coclé. He wrote that he found an enormous site with a great number of potsherds, mounds and ceremonial monuments including stone idols in human and animal forms arranged in rows. Many of these monuments and artifacts were later taken from El Caño back to New York (Verrill 1927, 2-7).

In 1959, James Zelsman excavated in El Caño and located nine burials five meters southwest from the stone columns originally discovered by Verrill. Two of the burials had 37 gold beads and five small gold plates measuring three to four centimeters in diameter (Mayo and Mayo 2013, 5).

In 1973, La Estrella sugar mill was preparing the eight hectares that now comprise the El Caño Archaeological Park for planting sugar cane when a bulldozer uncovered four burial urns in the northwest section. Dr. Richard Cooke of the Smithsonian Tropical Research Institute conducted a rescue excavation of the area, which was north of where Mound 3 is currently located. Two of the urns did not contain human remains. One urn contained the remains of a single individual, insufficiently preserved to estimate age or sex, along with artifacts made of bone, and shell. In this urn were also found five European glass beads. The fourth urn contained the remains of two individuals, an adolescent and a child. Based on the glass beads, and the fact the urns were all of the same typology group, “*Coretzo Rojo/Anté*” the urns were dated to the time period of 1500-1550 AD. (Cooke 1976, 456-457). These urns were evidence that, at least in the 16th century, the inhabitants of the area were conducting urn burials.

Dr. Reina Torres de Araúz, the director of the Historical Heritage Directorate of the National Institute of Culture (INAC), became involved in El Caño and it was through her efforts the eight hectares that are now the El Caño Archaeological Park were put aside for preservation and the El Caño Archaeological museum was built and dedicated in 1979 (INAC 1979, 2). There were other excavations conducted in the 1970s, by “amateur” archaeologists, (Mayo and Mayo 2013), but no records related to these excavations were found.

In the early 1980s, Dr. Roberto Lleras Pérez and Ernesto A. Barillas Cerdón conducted classes in El Caño in Area 2, called “Assistants to the Professional Archaeologist” (Lleras 1985, 3). Panamanian archaeologist Carlos Fitzgerald conducted investigations related to Mound 3 in 1988 (Fitzgerald 1993). There were no additional investigations in El Caño until 2006, when Dr. Julia Mayo and Carlos Mayo of Fundación El Caño began their investigations in Area 1 of the necropolis (Mayo *et al.* 2018) (Mayo and Mayo 2013).

I. THE DISCOVERY

Fundación El Caño created a project plan to rescue and reopen the El Caño Archaeological Park museum. It had been closed since 2013 due to lack of funding and was in poor condition. In May 2017, Dr. Julia Mayo and members of Fundación El Caño, along with archaeological park staff,

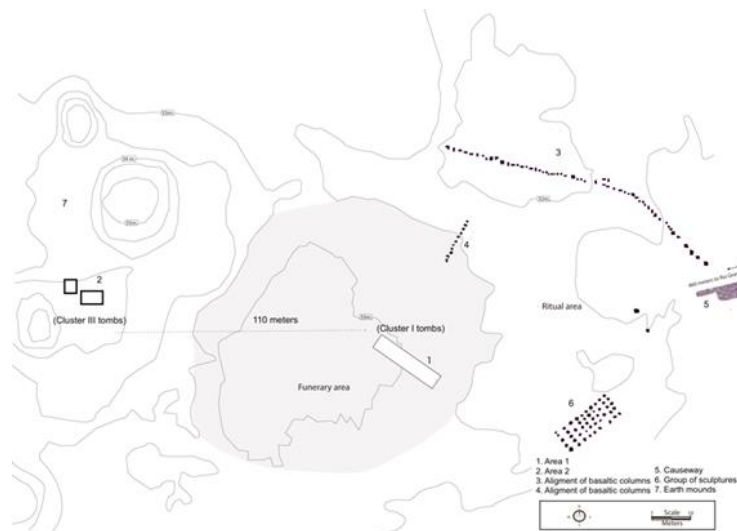
began to clean out, sort and inventory the artifacts that remained in the closed museum to prepare it for renovation work. On May 17, 2017, a glass display case that used to house an exhibit was processed (Figure 1). It contained three ceramic vessels, one of which contained bones, and the other two which contained some ceramic fragments. There were various other animal and human bones and pieces of ceramic laying around the three ceramic vessels.

FIGURE 1. EXHIBIT CASE CONTAINING CERAMIC VESSELS AND VARIOUS HUMAN AND ANIMAL BONES



According to park administrator Mercedes Meneses and INAC representative Rubén Henríquez, the artifacts in the glass case came from a 1978 excavation of Mound 3 in Area 2 (Figure 2). An inventory was conducted of the ceramic vessels and other contents of the glass case.

FIGURE 2. MAP OF THE EL CAÑO ARCHAEOLOGICAL PARK WITH THE DIFFERENT AREAS IDENTIFIED. (MAYO ET AL 2018B)



The ceramic vessel to the right in the picture (Figure 1) had the top half covered in red slip and the bottom in white slip. The inside of the bowl was covered in white slip and had red dots distributed on the inside walls. It bore identification number CL-31-78 on the bottom of it (Figure 3). Upon further inspection, Administrator Meneses and Archaeologist Carlos Mayo¹ determined this artifact did not originate in El Caño. As there is no information related to its provenance, this artifact is not addressed any further in this paper. It is unknown why this ceramic was in the same exhibit display as the other two (Mercedes Meneses, personal communication, February 7, 2018).

FIGURE 3. CERAMIC VESSEL WITH IDENTIFICATION NUMBER CL-31-78



The ceramic vessel on the left side of the glass tank was a red and grey bowl and had a museum registration number, 7-Aa-2-0060, on its base (Figure 4). Further investigation revealed that the number 7 represents the El Caño Archaeological museum; the “A” stands for archaeology; the “a” refers to *alfarería* which is Spanish for pottery; the number 2 represents the province (Coclé) and the 0060 is the number for the specific artifact (Mercedes Meneses, personal communication, January 19, 2018).

FIGURE 4. CERAMIC VESSEL IDENTIFIED WITH MUSEUM REGISTRATION NUMBER 7-AA-2-0060



¹ Doctoral candidate in archaeology, Universidad de Santiago de Compostela and co-investigator of the El Caño Archaeological Project, in charge of the stylistic and typological studies of the ceramic component of the funeral complex of El Caño

The ceramic vessel in the middle had museum registration number 7- Aa-2-0061 on the base (Figure 5). It contained a number of small bones. The bones were removed from the ceramic vessel and it was noted that they all had the same number on them as the ceramic vessel, with one numerical sequence added to the end. This suggested that at the time of discovery the bones were in the vessel. When the artifact was registered in the museum, each bone was given a sequential number to the ceramic vessel. After all of the bones were removed from the vessel an initial determination was made that the bones in the ceramic vessel were human bones from an infant. At this point the ceramic vessel became identified as an urn.

FIGURE 5. CERAMIC URN IDENTIFIED WITH MUSEUM REGISTRY NUMBER 7-AA-2-0061



II. THE INVESTIGATION

Mr. Henríquez, who offered to look for any INAC files related to the urn, and INAC anthropologist Roxana Pino were contacted for assistance related to locating documents pertaining to these artifacts. No files related to the urn (artifact 7-Aa-2-0061) or any of the other items were found. Also contacted were archaeologists Dr. Roberto Lleras, who worked in El Caño in 1985 and co-authored an article about the excavations in El Caño in Mound 4, and Dr. Carlos Fitzgerald, who excavated in El Caño and specifically in Mound 3 where the infant urn was found. Both stated they did not excavate the urn and had no useful information to provide related to the artifact (Roberto Lleras, personal communication, May 23, 2017) (Carlos Fitzgerald, personal communication, February 08, 2018). On February 26, 2018, Carlos Mayo contacted Pedro Quirós, former administrator of the El Caño Archaeological Park. Mr. Quirós stated he did not remember anything and could not be of any help with this investigation.

El Caño Archaeological Park tour guide, Reinaldo Oces has been working in the park since 1987. He stated that when he began working in the park the urn and some of the other items in the glass exhibit case were still in Mound 3. They had been partially excavated and left in situ for display. Mr. Oces indicated the area in Mound 3 where the urn was on display (Figure 6, the area is identified by the red circle). He stated that the urn and the other artifacts were removed from Mound 3 in the 1980s for safe keeping and the ceramics were placed on display in the museum. He further stated it was his understanding that the skeleton closest to the urn was a female (note that the skeletons in the photograph (Figure 6) are replicas).

FIGURE 6. MOUND 3 WITH RED CIRCLE IDENTIFYING THE AREA WHERE THE URN WAS LOCATED



III. THE ARTIFACTS

III.1 *Ceramic vessel 7-Aa-2-0060*

This pot was covered in red slip and had obvious signs of use. The blackened interior and exterior are indicators that it was probably used for cooking. It had no decoration on the inside or outside (Figure 7). The ceramic vessel measured 12 cm in height; 48 cm in circumference; 10 cm at across at the inner neck and 14cm across from outer rim to outer rim. It belongs to the 'Red Line' tableware (Lothrop, 1942), which must be included in the Late Ceramic Period I (1) and II (2) (750-1000 AD). It coincides with the time of the tombs from the earlier period of the necropolis being excavated by the team from the El Caño Archaeological Project. As it was found in a funeral context, it is possible that it was used as a censer. Some vessels with traces of use, like this one, were found in tomb T1. These types of ceramics are normally found on the platforms that sealed the tombs as an offering. They rarely appear accompanying the bodies (Carlos Mayo, personal communication, April 11, 2018).

FIGURE 7. CERAMIC VESSEL IDENTIFIED WITH MUSEUM REGISTRY NUMBER 7-AA-2-0060



Ms. Pino provided photographs of the El Caño museum when it was in operation. One of the photographs (Figure 8) included a side view of what appeared to be the same glass display case that contained the ceramic urn containing the infant skeletal remains and the other two ceramic vessels

referenced above. The quality and angle of the photograph does not allow confirmation the ceramic vessel bearing registry number 7-Aa-2-0060 is in the exhibit case but the urn is visible in the right rear corner. There also appear to be skeletal remains in the center of the exhibit case. These will be addressed further in the paper.

FIGURE 8. PHOTOGRAPH OF THE EL CAÑO ARCHAEOLOGICAL PARK MUSEUM WHEN IT WAS IN OPERATION



III.2 Faunal remains

In the glass display case there were a number of faunal remains that were lying between and around the ceramic vessels (Figure 9). All but five of the them had the same museum registration number, 7-Aa-2-0061, with an additional sequence number. Those identified in Figure 9 as E, F, I, J, and N did not have numbers. This indicates the faunal items were discovered in relation to the urn containing the infant skeleton, although the exact relation is unknown due to the lack of documentation.

FIGURE 9. FAUNAL REMAINS THAT WERE IN THE EXHIBIT CASE WITH THE URN CONTAINING THE INFANT SKELETON



Identified by Rochelle Marrinan, PhD, Dean, Department of Anthropology Florida State University, and Máximo Jiménez, faunal analyst, Smithsonian Tropical Research Institute.

III.3 *Adult bones*

The human bones that were in the display case with the urn were inspected. The majority of these bones also bore the same museum registration number as the urn with an additional sequence number. It was determined that there were a minimum number of two individuals represented in the adult bone collection. This was primarily based on the identification of two left calcaneus bones (Figure 10, item Z). There is clearly more than one individual represented, however there is no identifiable sex due to the fact that the remains recovered were so fragmented and incomplete. As with the animal bones, there is no graphic documentation or excavation notebooks to link these skeletal remains with the infant found in the urn. The only definitive connection is the museum registration numbers.

FIGURE 10. HUMAN BONES THAT WERE IN THE SAME DISPLAY CASE AS THE URN AND IDENTIFIED WITH THE SAME MUSEUM IDENTIFICATION NUMBER²



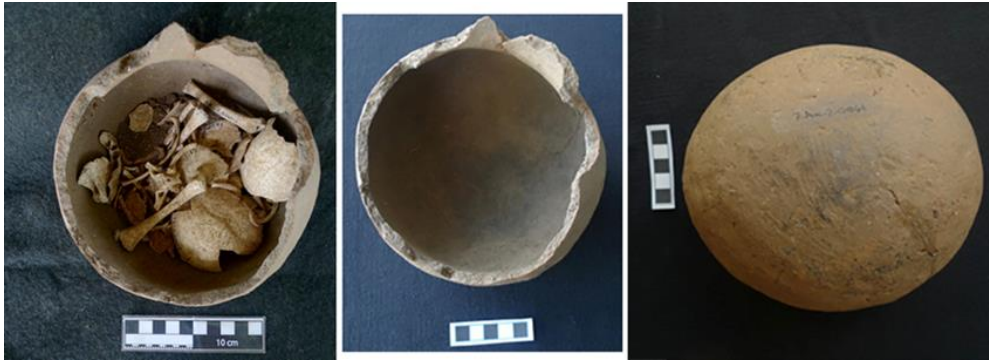
III.4 *Ceramic urn*

The urn measures 11 cm in height; 51 cm in circumference; 13 cm across at the widest part of the opening and has a 9 cm diameter at the opening of the neck (Figure 11). It appeared to be a used

² A. tibia B. ulna C. distal tibia D. ulna E. right humerus F. left humerus G. humerus head fragment H. radius head fragment I. distal humerus J. right metacarpal K. left metacarpal L. left metacarpal M. trapezium N. right clavicle O. left clavicle P. rib fragments

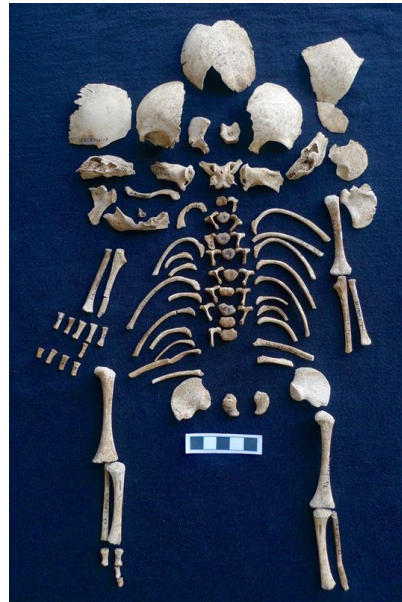
pot due to the traces of black on the inside and outside which are indications of cooking. There were scratches on it that may have been caused by a toothed tool used to compact the walls. Due to the missing rim and lack of decoration on the pot, no determination could be made of style or period (Archaeologist Carlos Mayo, personal communication, February 07, 2018).

FIGURE 11. URN WITH INFANT SKELETON INSIDE AND AFTER THE SKELETON WAS REMOVED



III.5 *The Infant Skeleton*

FIGURE 12. SKELETON OF INFANT IN THE URN BEARING MUSEUM IDENTIFICATION NUMBER 7-AA-2-0061



Q. right first rib R. possible ilium fragment S. ilium fragment T. possible distal humerus U. os coxae V. right temporal W. long bone fragments X. ulna Y. left metatarsal Z. two left calcaneus.

After completing the measurements of the bones, Dr. Herrerin was able to determine the infant was a fetus of 38-40 weeks of intrauterine life or gestation. In his opinion, the fetus died either during birth or immediately after. Sex estimation and cause of death were not identifiable (Table 1). (Scheuer and Black 2004).

TABLE 1. MEASUREMENTS OF FETUS LONG BONES

Long Bone	Left	Right
Femur	73 mm	73 mm
Tibia	62 mm	62 mm
Fibula	59 mm (partial)	60 mm
Humerus	61 mm	Not recovered
Radius	50 mm	50 mm
Ulna	60 mm	54 mm (partial)

To determine if the urn was a primary or secondary burial it was necessary to evaluate if the infant could have fit in the pot with the rim intact. The diameter neck opening measured 9 cm in diameter. In a study carried out in Colombia on 3,674 vaginal births in cephalic presentation between 20 and 43 weeks of gestation, the average head circumference (CP; measurement of fetal head circumference in the first hour postpartum) was 33.2 cm. In boys, the percentiles move between 32 and 36 cm, and in girls between 31.5 and 35.5 cm (Rubio, 2005). This translates into an average head diameter of 10.56 cm, with values between 10.47 and 10.69 cm (95% of cases), in vaginal births at term and in children without abnormalities.

If we take into account the flexibility of the cranial bones in babies, with the presence of fontanelles, and that the child may have been born at 38 weeks of pregnancy, the diameter of the 9 cm urn is sufficient for the newborn, already deceased, to have been completely inserted into the vessel.

IV. BURIAL ANALYSIS

To date, the urn containing the infant bones is the only urn containing a fetus discovered in the El Caño necropolis. If the animal and other human bones were indeed found along with the urn, particularly if they were in the ceramic pot bearing museum number 7-Aa-2-0060, this would additionally support the hypothesis that the urn was an offering and or part of a group of cultural and environmental items that in total comprised the offering.

There is evidence of infant offerings discovered in the tombs of the first period of occupation, 700 to 1020 AD (Mayo and Mayo 2013). In 2011, tomb T2 was excavated. In stratigraphic unit 128, a set of three miniature gold pectorals, four miniature gold bracelets and a necklace made of green beads was discovered (Figures 13 and 14). In stratigraphic unit 087, one miniature gold pectoral and two miniature gold bracelets were found (figure 15). Stratigraphic unit 128 was two levels below unit 087 and adjoining a wall (Mayo et al. 2016).

All of the miniature gold pectorals have the same iconography as the pectorals worn by the primary burial in tomb T2. This indicates these miniature gold artifacts have a connection to the primary burial, representing either a descendant or the adornments he would wear in his “rebirth” in the beyond (Julia Mayo, personal communication, April 19, 2018). While the finds were initially assigned numbers as though they were burials, no evidence of skeletons were found. Stratigraphic unit 087 was the last level of activity identified in tomb T2. Subsequently, these artifacts have been interpreted as an offering to close the tomb, rather than a burial (Mayo et al. 2016).

FIGURE 13. ARCHAEOLOGIST CARLOS MAYO EXCAVATING A SET OF THREE MINIATURE GOLD PECTORALS, FOUR MINIATURE GOLD BRACELETS AND A NECKLACE MADE OF GREEN BEADS DISCOVERED IN TOMB T2, STRATIGRAPHIC UNIT 128. (MAYO 2014)



FIGURE 14. THE SET OF THREE MINIATURE GOLD PECTORALS, FOUR MINIATURE GOLD BRACELETS AND A NECKLACE MADE OF GREEN BEADS DISCOVERED IN TOMB T2, STRATIGRAPHIC UNIT 128. (MAYO 2014)



FIGURE 15. MINIATURE GOLD PECTORAL AND TWO BRACELETS DISCOVERED IN TOMB T2, STRATIGRAPHIC UNIT 087. (MAYO 2014)



In tomb 6, also excavated in 2011, a figurine was located in stratigraphic level 125 in relation to individual I01 (Figure 16). The figure was carved from the tooth of a sperm whale and depicts what appears to be an adult figure carrying an infant in its arms, with a monkey on its head. Parts of the figure are covered in gold sleeves. The figure measures 84mm high; 36 mm wide; 33mm deep and weighs 32.9 grams. It was dated radiocarbon date Cal AD 775 to 790 (Cal BP 1175 to 1160)/Cal AD

800 to 980 (Cal BP 1150 to 970). The condition and quantity of the remains of individual I01 did not allow for determining a gender but it was likely an adult.

The manner in which the infant is being carried, across both arms, as well as the posture of the individual such as the flexed knees, has been interpreted indicate the figure to be offering the infant. The location of the gold sleeves on the monkey figure suggests the artist was representing a white monkey (*Cebus capucinus imitator*) or a white Caribbean (*Cebus capucinus capucinus*), species with infanticidal customs. Figures of adults interpreted as depicting the offering of an infant has also been found in Olmec and St. Augustine cultures (Guinea 2018).

Evidence of possible infant offerings have been found in locations other than El Caño. For example, Lothrop (1954, 229) wrote about numerous urns located in Venado Beach, Panamá, containing the skeletal remains of infants. These urns were found placed near an adult. This has close parallels to the urn found in El Caño. The description by Lothrop suggests these were burials of sacrificed infants who were “expected to grow up and serve (the adult) in another world”.

FIGURE 16. FIGURE CARVED FROM A SPERM WHALE TOOTH WITH GOLD SLEEVES COVERING SOME EXTREMITIES. TOMB T6. CONTE STYLE. (MAYO 2017)



Another view-point is that the urn containing the fetus skeleton is simply a primary burial of a fetus. The burial is unique and, to date, no others like it have been found in the necropolis. If the adult skeleton it was found near can be located and determined to be a woman, an additional layer of specialness can be added to the burial, particularly if a connection between the two can be confirmed. It would also fit more closely with Lothrop’s findings. The animal bones that are associated with the fetus skeleton could be a possible offering but without additional data that is not possible to confirm either. The mix of adult bones that represent a minimum of two people suggest that they are from some various burials from Mound 3 rather than a part of an offering. The part of the necropolis where the urn was uncovered, Area 2, is the location of previously discovered low status individuals (Mayo et al 2018) (Mayo et al 2016). Based on the location, the simplicity of the urn, and the dating of the accompanying ceramic, this could have been a burial of a low status individual whose family, because of the deceased being a child, placed it in the ceramic urn as their way to provide it a special burial. Utilizing the ceramic accompanying the urn, it is likely the urn was not interred in the artificial mound, identified as Mound 3, but was already buried when the mound was built on top of it.

V. CONCLUSION

At some point between 1020 AD and 1100 AD, the Coclé burial practices changed from subterranean interments to above ground (mound and urn) interments. This is evident in the differences of the burials discovered by Dr. Julia Mayo that date between 700 and 1020 AD, and the urns rescued by Dr. Richard Cooke that date between 1500 and 1550 AD.

Analysis and investigation of the abandoned museum exhibits has revealed that one of the urns previously on display contained the remains of a fetus and constitutes a primary burial. Significantly, this is the only example of an infant urn burial found in El Caño to date. No infant skeletons have been uncovered in the early occupation period, in any condition. This was determined to be a primary burial due to the quantity of bones, particularly small bones that were recovered from the urn. If the bones had been recovered from the body after burial or desiccation and stored in the urn, without a doubt many more of the bones would not have been in the urn. While we cannot know the specific position of the fetus when it was introduced into the urn, measurements taken of the urn and the bones clearly show that the fetus would have fit whole.

Despite extensive investigation, contemporaneous archaeological records documenting these artifacts have not been found. Perhaps they do not exist. While there have been no documents or photographs found relating to the original locations of these artifacts, it is probable that the human and animal bones were originally found in close proximity to the urn containing the infant. It is also possible that the animal and other human bones were parts of a package buried together.

One hypothesis is that the bones of the adult humans are related to those of the fetus in the urn, and that the urn and the animal bones are part of an offering of items to accompany the adult humans in the beyond. Another possibility is that this fetus was the child of a high-status member of the community and, due to this, given a special interment. However, in the opinion of the authors, the most likely explanation is that this urn burial was the method by which a low status family provided their child with the best interment they could with their limited means.

If any documentation related to these artifacts is discovered at some point in the future, these theories can be revisited and reevaluated. As excavation work continues in El Caño more urns may be found. Any subsequent discoveries will likely expand our knowledge of the funerary practices of the Coclé in the late occupation period.

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