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Ritual Cave Use in the Bahamas

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The caves of the Bahamas represent an important part of the archipelago's archaeological record. Cultural materials associated with Bahamian caves include human remains, pictographs, petroglyphs, faunal bone, botanical remains, and a variety of cultural material. Archaeological and ethnographic evidence indicates the importance of caves in Taíno mythology and cosmology throughout the West Indies. Recent excavations at Preacher's Cave on the island of Eleuthera have provided the best-documented Lucayan burials yet found in the Bahamas. Results of these investigations provide information on ritual mortuary practices that were used during cave use in the northern Bahamas and that ranged from as early as circa AD 700 through European Contact.

Archaeological studies in the Bahama archipelago (Figure 20.1) have focused mainly on the cultural and technological adaptations of the Lucayans (AD 600–1500) to their environment (e.g., Berman and Hutcheson 2000; Carlson 1993; Hoffman 1967; Keegan 1982a, 1982c). Fieldwork has mainly focused on site surveys and large-scale village excavations (e.g., Bohon 1999; Keegan 1985; Vernon 2007; Winter 1978). Surveys and excavations of burial sites in the recent past tended to occur only when skeletal remains were found inadvertently. Limited human skeletal material from antiquity has been recovered in the Bahamas as a result of excavation and documentation in a scientific manner.

The cave systems throughout the archipelago have yielded a variety of artifacts that have not been preserved at open-air sites. Notably, this includes artifacts such as *duhos,* which are ceremonial seats reserved for the ruling elite. Caves also contain human remains not normally found in open-air sites. Caves exist in two forms: wet/submerged (including blue holes and caves entirely or partly below the water table) and dry caves. The wet caves can include complex underground caverns, making remains located within them difficult to access. Burials and associated artifacts in wet caves tend to be intact. In contrast, dry caves are generally more accessible but are usually highly disturbed by collectors and guano gatherers. It should be noted that distinctions between interments in dry caves and blue holes or wet caves have not been fully established.

CAVE MYTHOLOGY AND COSMOLOGY

Caves in the Bahamas are an integral part of Lucayan-Taíno mythology and cosmology. Lucayan-Taíno religion has it roots in the pre-Taíno migration of the West Indies and is structurally related to the mythology of Amerind people—particularly the people indigenous to Amazonia and the Orinoco River (Stevens-Arroyo 1988). Caves are a constant physical and mythical feature within the region's cosmic geography, occurring throughout the Circum-Caribbean and Mesoamerica.

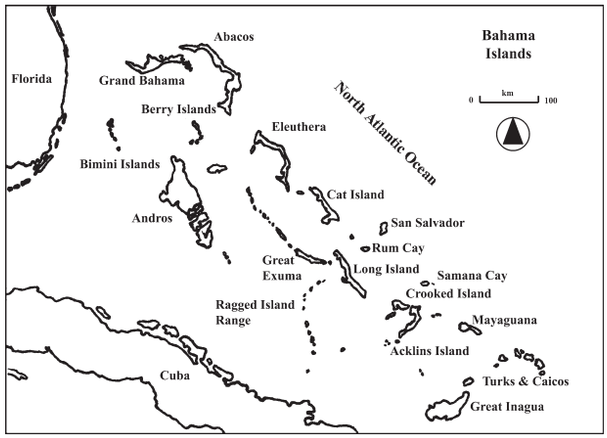

FIGURE 20.1 Islands in the Bahama archipelago, 21° to 27°30' N and 69° to 80°30' W. (Line art by William C. Schaffer, courtesy of Curran and White 1995.)

Caves were believed to be the place of origin or birthplace of humans in addition to the emergence of the sun and moon. In his 1497 account of the Taíno people on the island of Hispaniola, Hieronymite Friar Ramón Pané recounts their belief that people originated in two caves at the mountain known as Cauta. The ancestral Taínos emerged from one cave, Cacibajagua, and non-Taínos came from the other, Amayaúna (Pané 1999, 5–6). The sun and moon originated from a cave called Iguanaboina, where two highly regarded *zemis* (carved figurines of spirits), Boinayel ("Rain-Bearing Clouds") and Márohu ("Without-Clouds"), depicted individuals with their hands tied and apparently perspiring (Pané 1999, 17). This was a place to visit in order to request specific weather.

Caves play a significant role in the Taíno concept of a three-tier universe. The celestial vault above and the watery vault below ground, known as Coaybay, were the "house and dwelling place of the dead" (Pané 1999, 17–18). It is at the earth's surface that portals to the underworld are located (Beeker, Conrad, and Foster 2002; Seigel 1997). The importance of the underworld is that it is the home of the ancestral spirit, *opía,* and thus the placement of the dead into caves and blue holes facilitated their access to Coaybay (Pané 1999, 19).

PREVIOUS RESEARCH

The prehistoric significance of caves in the Bahamas is, in part, reflected by the history of archaeological investigations across the island chain. The first published account of archaeological remains in the Bahamas is a paper by W. C. Brooks (1888, 215–25) describing three crania from various cave sites. Two general surveys (De Booy 1912, 1913; Rainey 1941) documented numerous sites across the Bahamas and the Turks and Caicos, but most site assessments were cursory with the exception of Froelich Rainey's investigation of the Gordon Hill Caves on Crooked Island (Granberry 1955, 1978; Rainey 1934). He investigated seven caves in the Gordon Bluff group. Four of them had been previously disturbed to extract guano and were sterile, two caves contained human burials (Gordon Hill Burial Caves Nos. 1 and 2), and one cave contained other cultural material and human burials (Gordon Hill Dwelling Cave) (Granberry 1955, 160–68; Rainey 1934). Gordon Hill Burial Cave No. 1 produced two disturbed human graves. One skeleton was interred on a small rock shelf below the cave soil. A second was lying on the rock floor of the cave (Rainey 1934, 20–22). Gordon Hill Burial Cave No. 2 produced disturbed bones with the apparent articulation of a radius and ulna, suggesting at least a single grave near the mouth of the cave.

Rainey excavated 50 square meters of one cave that was about 120 square meters in area. The cave had a central chamber with two smaller side chambers. He determined that cultural material was buried within the first 25 centimeters and that the front and back of the cave had the highest concentrations of artifacts. Fire pits occurred across the cave replete with faunal bones and conch-shell refuse. Artifacts were common, including pottery sherds, a wooden fishhook, a wooden fireboard, as well as bone and shell artifacts (Rainey 1934, 23–26). Nearly 50 years passed before the human skeletal material housed at the Yale Peabody Museum from Rainey's excavations was analyzed and a descriptive inventory completed (Keegan 1982b). Unfortunately, most of the graves were too disturbed to allow for reconstruction of burial positioning and mortuary patterning.

Human remains have also been discovered at the Sanctuary Blue Hole on South Andros Island (Palmer 1997). The skeletal remains of seventeen individuals (11 males, 5 females and 1 subadult) were recovered by cave divers in 1990 and 1991. However, this recovery lacked provenience, and contextual information concerning the burials was not recorded. Descriptive inventories of these individuals are complete with analyses of oral-dental and gross skeletal pathology as well as stable isotopes (Mack and Armelagos 1992; Pateman 2007). Faunal remains include an alco (*Canis familiaris*), hutia (*Geocapromys ingrahami*), and a variety of birds (Aves), but no formal analysis has been conducted. A recent study revealed that this recovery at Sanctuary Blue Hole was incomplete, since at least five additional individuals have subsequently been located (Pateman 2007).

In 1995, a canoe was found in the Stargate Blue Hole, also on South Andros near the Sanctuary Blue Hole (Palmer 1997, 172). This canoe is believed to be ceremo-

TABLE 20.1 Documented Bahamian caves and burial sites.

Island	*Keegan*	*Pateman*	*Aarons and Riggs*
Abacos	(2)	3 (1)	14
Acklins Island	1(1)	—	2
Andros	3 (1)	3 (3)	8
Berry Islands	—	1	—
Cat Island	—	—	1
Crooked Island	3	3	5
Eleuthera	3	2 (6)	6
Grand Bahama	(2)	—	3
Inaguas	1	—	6
Long Island	4	4	15
Mayaguana	—	1	—
New Providence	10	3	9
Rum Cay	1	3	9
San Salvador	2	3	13
Turks and Caicos	8 (1)	—	20
Subtotal	36 (6)	26 (10)	111
Total	42	36	111

Submerged cave/burial location in parentheses.

TABLE 20.2 Documented petroglyphs and pictographs in the Bahamas.

Island	*Petroglyph Caves*	*Reference(s)*
Crooked Island	2	Hoffman 1973; Winter 1978
Eleuthera	1†	Carr et al. 2006
Inaguas	1	Winter 1991
Long Island	1	Winter 1991
Rum Cay	1	Maynard 1890; Winter 1991
San Salvador	2	Winter 1991

† Pictograph.

nial because it would not have been navigable at sea due to its size (less than 2 meters in length). Human remains were also located, though not recovered. It has been posited that the vessel may have been a burial canoe and loaded with offerings.

Keegan summarizes archaeological site types throughout the Bahamas and the Turks and Caicos (Keegan 1992, 70). He places caves and rockshelters in separate categories and distinguishes burial caves (wet and dry) from caves without documented evidence of human remains. Aarons and Riggs assembled an inventory of 111 cave sites (Keegan 1997, 33) but much of this data lacks specifics (i.e., wet *vs*. dry, cave *vs.* rockshelter) and is duplicated and redundant. Pateman (2007) provides the most current inventory reflecting a synthesis of data solely from burial caves (Table 20.1).

Specific to problem-oriented skeletal research, few detailed reports exist concerning the prehistory of the Bahamas. Only until recently has the sizeable Lucayan assemblages been adequately inventoried (MNI = 71), and a biocultural approach used to look at variables such as health, nutrition, social status, and mortuary patterns (Pateman 2007).

Exclusive of the newly uncovered Preacher's Cave material, the existing inventories represent mostly surveys and only one substantial excavation. Poor preservation coupled with a lack of archaeological context has thus hindered our knowledge of mortuary behavior and related social organization.

Some social aspects can be interpreted through petroglyphs and pictographs, which have also been documented in association with Bahamian caves. John Winter (1991, 672–80) has written the best summary of Bahamian petroglyphs, noting that they occur in both caves and solution holes. He notes that they occur in both wide-mouth flank margin caves as well as narrow-mouth caves, such as solution holes. Winter identifies Bahamian petroglyphs as being of the Timehri type, an anthropomorphic design first classified by Williams (1985), who believes it functioned to maintain subsistence horticulture and has its origin in Amazonia. Winter notes that five of the principal islands have documented petroglyphs and these are presented in Table 20.2.

Currently, evidence for only one pictograph has been reported in the Bahamas from Preacher's Cave on Eleuthera (Carr et al. 2006). The pictograph is highly eroded, but an anthropomorphic or zoomorphic face is still apparent. This could be the type of image suggested by Winter (1991), but given the fact that Preacher's Cave is a burial ground, it could possibly be a revered animal such as the bat or owl that inhabits caves, oftentimes suggestive in Taíno artifacts as resembling the spirits of dead humans (Garcia Arévalo 1984, 1997) Additional testing to substantiate this feature as being prehistoric has yet to be conducted.

PREACHER'S CAVE

Located on the northern part of Eleuthera adjacent to Jean's Bay, Preacher's Cave is situated just south of the reef system known as the Devil's Backbone (Figure 20.2). Preacher's Cave is characteristic of a sea cave, lacking speleothems and mostly horizontal in origin with a grand vertical promenade at the entrance. A vertical intrusion reminiscent of a pit cave provides a skylight once in the interior of the formation. Freshwater interaction from

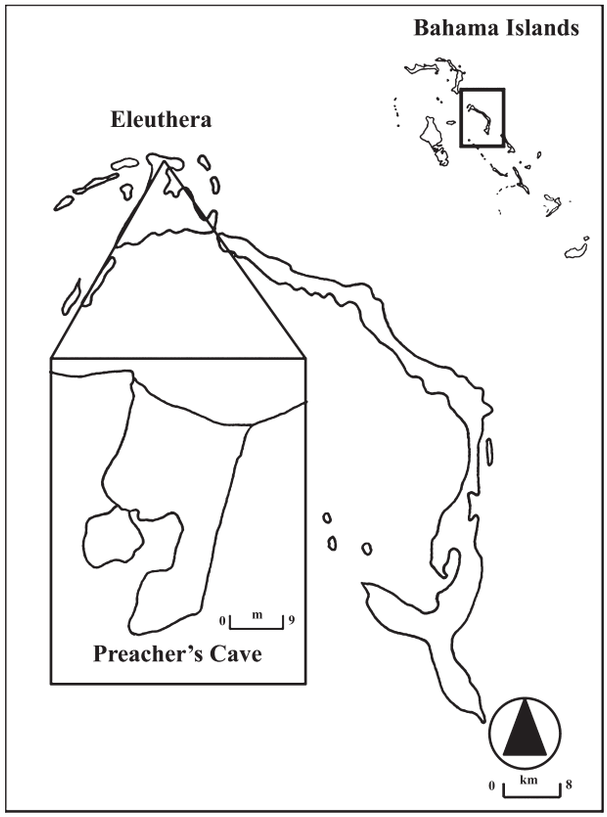

FIGURE 20.2 Plan view of Eleuthera Island with inset of Preacher's Cave.

precipitation is surely a factor in its formation, though it must be noted that the pit feature could have been at one point a breached flank margin cave, diagnostic of a high-level sea stand. The cave extends southeast into a narrow corridor, with many slender vertical shafts providing ample twilight. There are no true dark zones, where artificial light is essential for navigation during the daytime, as numerous of these shafts pierce the formation. However, the area with the least light infringement is the back corridor and this is where the bulk of prehistoric burials have been discovered.

Until recently, interest in the cave has traditionally focused on the saga of the first English settlers of the Bahamas, the Eleutherian Adventurers. They were Puritans in search of religious freedom that denounced King Charles I as the head of the Anglican Church, fled Bermuda, and shipwrecked in 1648. They sought refuge in the grotto for shelter and conducted sermons (Albury 1975; Craton 1986; Craton and Saunders 1992). The cave's archaeological potential was first recognized in 1992 during an archaeological survey of north Eleuthera, substantiating the veracity of historic accounts with the discovery of historic artifacts and European burials (Carr 1991; Carr, Day, and Norman 1993; Dickel 1993). These investigations also revealed a significant Lucayan component within the cave.

EXCAVATION RESULTS

Recent archaeological investigations have confirmed that Preacher's Cave was intensely used by the Lucayans, principally as a mortuary locale (Carr et al. 2006). These excavations have yielded the most complete Lucayan graves documented in situ by archaeologists in the Bahamas. Radiocarbon dating of materials associated with archaeological deposits was conducted using the AMS method by Beta Analytic, Inc., Miami, Florida. A culturally modified triton shell (*Charonia tritonis variegata*) found outside the cave dated AD 560–720 and shells buried with Individual 1E have a mean date of approximately AD 1290 (Table 20.3). The triton-shell date range represents the earliest evidence of occupation in the northern Bahamas and suggests that the peopling of the archipelago may have taken place on the island of Eleuthera and the northern Bahamas 200–300 years earlier then previously believed (Berman and Gnivecki 1995; Berman and Pearsall 2000; Keegan 1992, 1997). The archaeological context and associated artifacts advocate that the human skeletal remains date to the broad Ostionoid period (AD 600–1500).

A total of twelve individuals have been uncovered in Preacher's Cave, of which six are Lucayans, five are historic, and one, currently undetermined. Individuals 1A and 1B, as well as a cremation-related deposit, were uncovered during a 1-week excavation session in March 2006. Individuals 1C–1E were subsequently discovered during a 2-month field season from January to March 2007 (Figure 20.3). The six Lucayan individuals include three males, two females, and one of indeterminate sex. A subadult female (1A, 15–20 years) represents the youngest age category, followed by two young adult males (1D, 20–25 years and 1E, 25–30 years) and a young adult female (1C, 30–35 years) (Table 20.4). Individual 1B was also likely a young adult male, yet remnants of this individual's remains were too scant for a more accurate assessment. The individual represented in the cremation-related deposit was of indeterminate sex due to fragmentation and partial calcification; however, skeletal elements suggest this individual was at least a young adult (20–34 years) at the time of death.

The bodies were interred either flat and extended, and sometimes semiflexed on the side. Individual 1D was the anomaly of the group, bound by cordage, and interred face down. Preservation and completeness was typically dictated by historical and modern disturbances. Most skeletal material was recovered from fine, moist beach sands. Preserved grave goods were found only with Individual 1E and are detailed below.

Individual 1A was a subadult female in the mid-teens

TABLE 20.3 Preacher's Cave radiocarbon samples.

Beta	*Material*	*Location*	*Depth**	*Cal. Date§*
218509	Burnt shell	ST N110/E240	60 cmbs	AD 1460–1660
218512	Triton shell	ST 39 N207/E507	80 cmbs	AD 560–720
218517	Charred cob	Unit 9	0–20 cmbs	AD 1430–1530; 1560–1630
218518	Charcoal	Individual 1A	40 cmbs	AD 700–980
218519	Charcoal	Cremation deposit	10–20 cmbs	AD 1270–1320; 1340–1390
218520	Charcoal	Feature 44, Unit 16	16–20 cmbs	AD 1430–1650
220176	Charcoal	Cremation deposit	10–20 cmbs	AD 1460–1520; 1580–1630
242393	Tellin shell	Individual 1E	51 cmbs	AD 1190–1310
242394	Triton shell	Individual 1E	44 cmbs	AD 1270–1400

* cmbs, centimeters below surface
§ Calibrated to 2 sigmas (95% probability)

TABLE 20.4 Age and sex distribution of prehistoric graves from Preacher's Cave.

Individual	*Sex*	*Age at death*
1A	F	15–20
1B	M?	24–36
1C	F	30–35
1D	M	20–25
1E	M	25–30

to early twenties (15–20 years) at or around the time of death. She was laid out extended in a pit, and her body subsequently formed to its concavity. The neck region affirmed this placement with curved posture in synch with the slope of the depression. The mandible (lower jaw) faced due south away from the mouth of the cave. Individual 1B was likely a young adult male (24–36 years) at the time of death and interred perpendicular to the head of Individual 1A.. This individual was also laid out flat and extended, but the grave had been highly disturbed, purportedly by European occupation. Thus, most of the skeletal remnants are too fragmentary or simply absent for a more in-depth assessment of burial practice.

Individual 1C was a female in her early to mid-thirties (30–35 years) at the time of death. This individual was wrapped in a plaited mat and interred on the left side, the upper legs semiflexed and the lower legs flexed. The impression of the mat is well preserved on the left parietal, left zygomatic (cheekbone), and right clavicle (collar bone) (Figure 20.4). Its pattern can be compared to a schematic of basketry-impressed Palmettan Ostionoid ware from the Pigeon Creek site on San Salvador (Berman and Hutcheson 2000).

Individual 1D was a male in his early twenties (20–25 years) at the time of death. This individual was fixed by cordage around the arms and hands, buried face down with the upper limbs semiflexed, with hands restrained and crossed in front of the waist. It appears that the lower legs had been separated from the upper legs. The skull and atlas (C1) were absent, though no visible signs in the skeleton suggest that this individual died from decapitation or strangulation. Most likely the skull was removed while still fleshed. Also, a fairly uniform horizontal incision breached the cortical surface and penetrated the trabecular content of the humeral head—possible evidence of sharp-force trauma to the right shoulder from capture or struggle. If it was a wound, the injury would have been sustained prior to death, as there is no sign of healing.

Individual 1E was a young adult male (25–30 years) at the time of death. This individual was also wrapped in a plaited mat, in the same manner as Individual 1C, but laid on the right side with the upper and lower legs semiflexed. A large (30 cm) culturally modified triton shell lay in front of the chest cavity. A cache of twenty-nine sunrise tellin (*Tellina radiata*) with a piece of red ochre (2 gr) and a fish-bone scarifier lay just behind the left shoulder. In addition, the neck and shoulder regions of an articulated sea turtle (*Chelonia mydas*, *Eretmochelys imbricate*, or *Caretta caretta*) that had been severed from the head and carapace lay at the foot of this individual.

DISCUSSION

The Spanish detailed aspects of social rank within Taíno society as having two components: division of labor and control of resources. Those who performed the brunt of manual tasks associated with the production of food and textiles were known as the *naboría*. These workers relin-

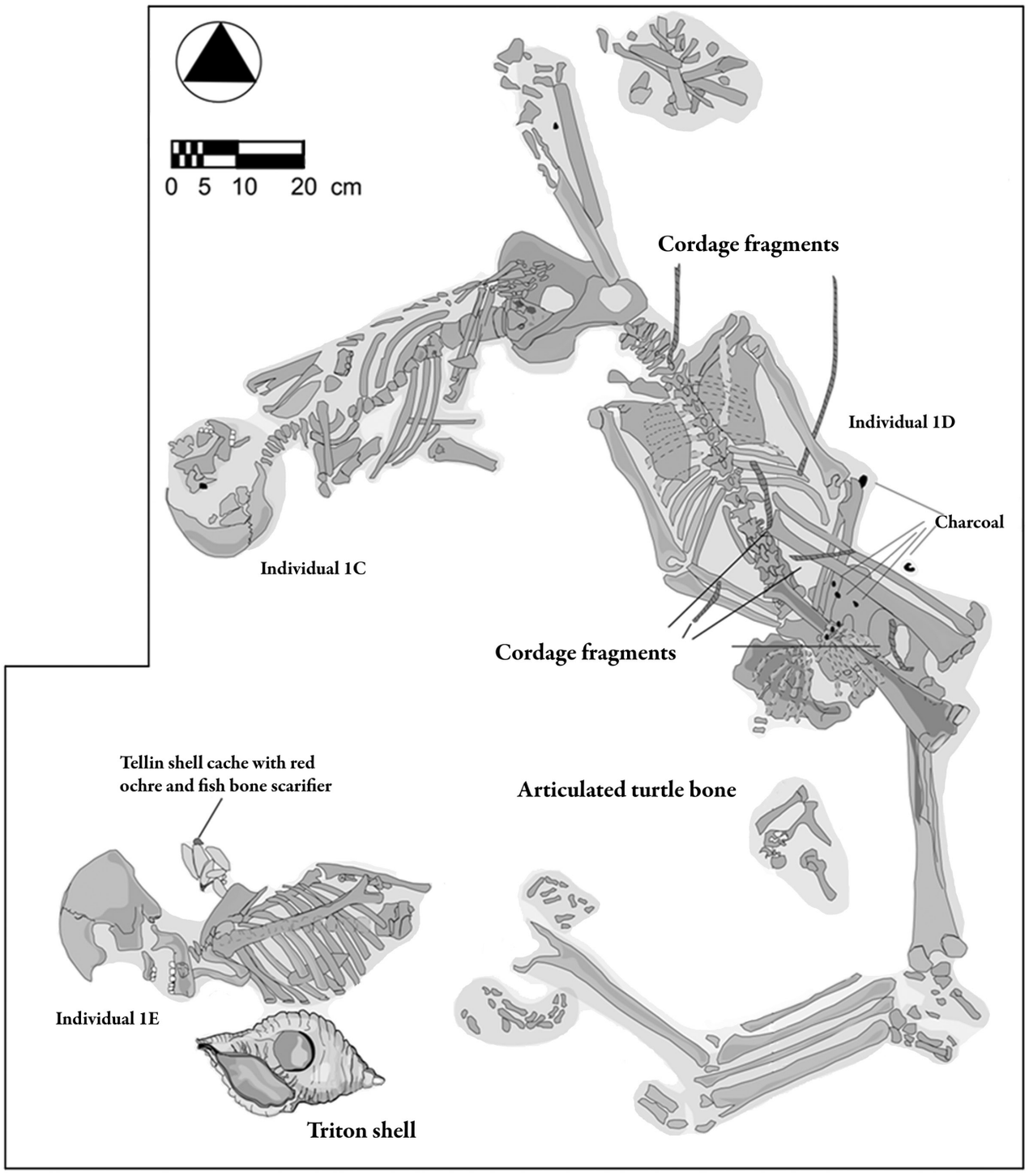

FIGURE 20.3 Plan view of Individuals 1C–1E. (Line art by William C. Schaffer.)

quished the rights to the end result of their efforts, handing over produce and manufactured goods to the ruling *cacique,* or chieftain, and his constituency. *Caciques* were a ruling stock selected from a privileged class referred to as the *nitaíno*. Accounts of the Spanish do not provide a lucid depiction of the *nitaíno* as a whole, but they do present disparities between the commoners and *caciques* in terms of daily activities and even burial practices.

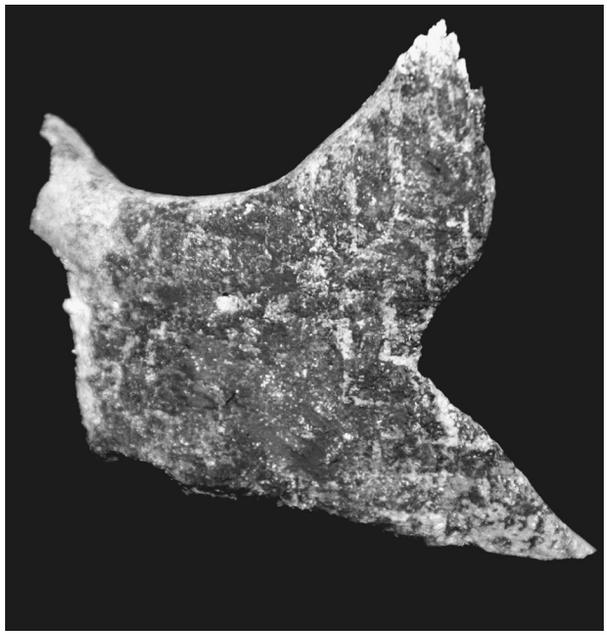

FIGURE 20.4 Basketry-impressed left zygomatic (cheekbone) (Photo by William C. Schaffer)

The surviving works of Christopher Columbus describe many funerary procedures, some with association to social rank and others with greater ambiguity. They discuss practices that include placing people in hammocks or net beds, burying people in caves with food and receptacles filled with water, burning of the dead, and even removing the heads of individuals. In fact, in Columbus's diary while on the northeast coast of Cuba, he recounts that his men found human skulls in baskets held on posts in Taíno houses. Yet some of the more provocative details lie in the treatment of the *caciques*. Their bodies were said to be exposed to fire and dried to be preserved completely intact.

Interpreting social rank through mortuary data and ethnohistoric evidence is oftentimes challenging, especially since at present the Preacher's Cave sample is the only viable case study. Oftentimes social rank can be expressed in terms of those who are buried with grave goods or not, or those buried with more valuable goods than others (Morbán Laucer 1979). In this case, the combination of burial hammocks and grave goods with evidence of interpersonal violence is sufficient to allow hypothesizing.

Since only Individual 1E was buried with grave goods and wrapped in a hammock, it seems that he may have been a member of higher status, either of the *nitaíno*, or more specifically, a *behique* (physician or shaman) or a ruling *cacique*. The triton shell may have held an offering of water, possibly associated with a libation ritual. Accordingly, the remains of a butchered turtle may be an offering of food. On the other hand, the sunrise tellin cache is one of even greater mystery. The twenty-nine shells in this cache may be completely random or a purposeful calculation. It may be mere coincidence that the average days in a full lunar cycle (synodic month) is identical to the number of shells within the cache, or a valid interpretation of the denomination. As aforementioned, Taínos believed that the moon originated from caves. This could be the symbolic manifestation of the lunar cycle that occurs during life as a tribute to restoring it to its celestial origin through death and interment within the cave. Two other artifacts were also situated within the cache: a fish-bone scarifier and a piece of red ochre. These items, along with the sunrise tellin shells, likely served as a body paint kit. Plants such as jagua (*Genipa americana*) and anchiote (*Bixa orellana*) both yield coloring by which the Taínos could mix with oil and decorate their bodies (Sauer 1966). It is logical to assume that any available coloring in the environment, such as red ochre, could accommodate the need for body art.

Based on our data, we suggest that after the death of Individual 1E, his body was wrapped in basketry and dried for a few days, possibly by the heat of flame. Immediately following his death, Individual 1D was sacrificed in his honor. Evidence of traumatic injury and cordage binding suggests that this person was an unwilling participant, possibly a nonlocal who may have been captured. No grave goods or basketry were associated with his skeleton, thus reinforcing this interpretation. He was the first in succession to be interred. His head was removed shortly thereafter and parts of his legs were removed and shuffled in order to fit Individual 1E in his resting place. It is unclear when Individual 1C was buried, but the close spatial proximity to Individual 1E suggests that they may be related. Since Individuals 1C and 1E were both wrapped in burial hammocks, they are likely of similar status. Individual 1C may have been a wife of Individual 1E.

SUMMARY AND CONCLUSIONS

Caves have long been used by the indigenous peoples of the Bahamas for shelter, processing of foodstuffs, and most importantly, burial of the dead. To date, Preacher's Cave is the only site that offers a detailed account of Lucayan ritual burial patterns associated with grave goods. The results of archaeological investigations at Preacher's Cave reinforce the significance of caves to Lucayan ceremonial practices and can be viewed in the broader context of the cosmology of caves for the ancestral Taíno throughout the greater West Indies. Ethnohistoric accounts of Taíno mythology by the Spanish provide some insight to caves as a portal between the natural and supernatural, specifically as a pivotal element within the indigenous mythology and cosmology of the Taíno people.

ACKNOWLEDGMENTS

We thank Jane S. Day (Research Atlantica Inc., Boca Raton, FL); Jock "Bandit" Morgan (North Eleuthera Historical Society) and his wife Caroline; Dr. Keith Tinker (Director of The National Museum of The Bahamas); Dr. Steven A. Symes, DABFA (Mercyhurst Archaeological Institute, Erie, PA); Dr. Richard Rozencwaig, MD, FACS, and Office Manager Nina Blier (Orthopedic Care Center, Aventura, FL), and radiologic technologists José Borges, Ursala Chen, and Nestor Cabrera; and the entire AHC Preacher's Cave crew of professional archaeologists and volunteers, especially Aaron Henry for his assistance in the excavation, documentation, and packaging of skeletal material. Also, we extend a very special thanks to Dr. Mary Jane Berman (Miami University, Oxford, OH) for her ideas and encouragement.

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