

THE CORALIE SITE, GRAND TURK

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Panoramic view of excavations at the Coralie site in January 1996.

Located on the western shore of North Creek at the northwest end of Grand Turk, the Coralie site (GT-3) is the oldest archaeological site in the Bahama archipelago. It is also the best example of an Ostionan colony in all of the West Indies. The site, located on the property of Coralie Gardens, is within 20 yards of North Creek. About 300 yards to the west is a sand beach above a shallow tidal flat (less than 3 feet deep) which extends for about 500 yards to the barrier reef beyond which the sea drops to 7,000 feet in the Turks Island Passage. "North wells," a seasonal source of potable water for the past 300 years, is about half a mile south of the site. It is likely that this low lying area in which water collects today provided a relatively permanent water supply for the original inhabitants.

The shore of North Creek is lined with red mangroves and sea purslane, the ocean shore is predominantly sea grapes, and the dune itself is covered by dense acacia thorn brush and cacti, especially prickly pear. The present environment, however, is a poor reflection of the past. Archaeobotanist Dr. Lee Newsom's study of wood charcoal from the site has revealed several trees that are today rare or absent from Grand Turk. These include wild

lime, ironwood, Celastraceae (bittersweet family), and Palm trunk wood. Buttonwood, which today grows along the margin of the North Creek, was also present in the charcoal samples. Moreover, clear growth rings of varying width and morphology are visible in charred wood samples, reflecting an annual rainfall regime of alternating wet and dry seasons.



Conch shell tool *in situ*.

The Coralie site was discovered in 1992 when prehistoric potsherds were exposed on the ground surface by land clearance for a housing development.

To define the boundaries of the site 35 test pits were dug. These tests revealed a high incidence of sea turtle and other animal bones, pottery, and mollusk shells in low frequency distributed over a 40 (east-west) by 150 (north-south) square yard area covering more than 2 acres. The archaeological deposits have been protected by burial under 15 to 25 inches of soil "overburden." Although we obtained one relatively early radiocarbon date (AD 900) from charcoal recovered in a test pit, it was only after we began to open larger areas of the site that I realized that this was a colony dating to the initial ceramic-age settlement of the Bahamas. Between 1995 and 1997 more than 250 square meters have been excavated in nearly contiguous units. Ten radiocarbon dates these excavations indicate that the site was occupied from about 1200 to 800 years ago (cal AD 705 and 1170).

The people who occupied this site were the ancestors of the Tainos, the people encountered by Columbus when he reached the Bahamas in 1492. No physical remains have yet been found of the people themselves. In fact their burial practices are



Marsha Ford excavates a midden deposit under the watchful eye of David Bowen.

poorly known. We did recover some of their jewelry, in the form of shell beads and a pendant made from mother-of-pearl. Several pieces of polished greenstone, which had flaked off of celts or axes, and a nearly complete greenstone axe provide evidence that these were the first people to clear the land on Grand Turk, probably for small gardens in which manioc, sweet potatoes,

cotton, and other crops were grown. We also recovered a variety of conch-shell tools, clam-shell scraping tools, and whelk spoons and scraping tools which could have been used in woodworking, preparing the land for cultivation, and processing turtles and fishes. The most spectacular find is a wooden canoe paddle discovered by Capt. Bob Gascoine. In February 1997, Elise LeCompte directed systematic underwater excavations where the canoe paddle was found. A few additional pieces of worked wood were recovered, but nothing of definite Indian manufacture. Samples of peat collected during these excavations will aid in our efforts to recreate the aboriginal environment.

The most common artifact in the site is broken pieces of pottery vessels ("potsherds"). All of the more than 1,800 potsherds from the site contain mineral sand tempers. Because the Turks and Caicos are composed entirely of limestone, this pottery must have been imported from the Greater Antilles. Stylistically the pottery is all Ostionan Ostionoid, with both fineware and crudeware represented. This is the first pure Ostionan site discovered north of Hispaniola. Several sherds merit specific comment. Several large sherds from navicular (boat-shaped) bowls with a strap handles rising above the rim are classic Ostionan. A red-painted appendage, in the shape of a turtle's flipper, and a wedge-shaped lug with the face of a turtle, came from an effigy bowl (a bowl shaped like an animal). The complete bowl would have had the turtle head lug at one end and four flippers arranged just below the rim of an oval vessel. Finally, numerous griddle sherds have been recovered, including one from a griddle that was 1.5 feet in diameter. The presence of griddles suggests that cassava bread was being made at the site, an activity associated with sites occupied for a long period of time.

Most of the sherds show evidence of over-use. Earthenwares fired in an oxygen-rich environment, like Ostionan pottery, typically have a darker core which results from lower internal temperatures during firing. The sherds from Coralie lack a dark core which indicates that they have been heated completely through. Such complete heating reduces the structural integrity of a vessel causing it to break more easily. In the language of ceramic technologists, they become "friable." Several very large sherds in our excavations were so friable that they had the appearance and texture of popcorn. This situation suggests that pots were in short supply, perhaps because they all had to be imported from the Greater Antilles. Whatever the reason, the pots and griddles were used so much that the clay was cooked completely through until they lost their elastic properties and crumbled.

The site is notable for its unusual collection of animal bones, especially green sea turtles, which occur nowhere else in the region in such abundance. In addition to large quantities of turtle bones, we recovered the bones of iguanas, snakes, birds, and large fishes. Using the zooarchaeological convention of estimating the minimum number of individuals, we counted at least 518 animals, 413 conchs, and 212 other mollusks in the 220 lbs of

animal bones and shell that were excavated in 1993. In terms of meat yields, 57% of the diet came from sea turtles, 24% from fishes, 12% from iguanas, 5% from queen conch, and less than 1% each from birds, spiny lobster, and other mollusks. The most common bird in the sample was the red-footed booby, a bush nesting species that is commonly extirpated when humans arrive in their territory. Today there is only one nesting colony of red-footed boobies in all of the Bahamas.

A surprising discovery was how many of the fishes were very large, including one 45 lb barracuda, many 10-20 lb groupers, snappers and rainbow parrotfishes, and some sharks. These fishes were likely captured using spears and/or hook and line. In this regard Coralie differs from later sites. The Coralie samples are also different in that large rainbow parrotfishes (*Scarus quacamaia*) are the most common Scarid, while at all later sites the much smaller stoplight parrotfish (*Sparisoma viride*) predominates. Porgies, surgeonfish and mojarras are regularly found at late sites, but are barely represented at Coralie despite schools of mojarras in the shallows of North Creek adjacent to the site. Finally, the abundance of herring-size fishes found in other West Indian sites were absent from the Coralie samples.

In sum, the faunal remains are substantially different from those at later sites, and reflect the richer diet available to those who are the first to settle a new area. As one would expect, the highest ranked species were consumed first, and the occupants of the site greatly benefitted from being the first humans to exploit the pristine resource base. Even their food-processing techniques were adapted to the plethora of green turtles in their environment. One of the most common features in the site is hearths constructed from limestone rock and conch shells on which a turtle carapace was used as the vessel in which turtle meat, iguana, and fishes were cooked together. Surprisingly, very few mollusks were eaten.

Perhaps the most remarkable discovery is the stains left from the deterioration of structures on the site. Four large round stains mark where the central posts of a house rotted in place. As expected, the soil around these center posts had virtually no artifacts. The absence of artifacts supports the interpretation that this space was inside a structure because, as Columbus reported for the contact period and as is typical of most traditional houses, the interiors would have been swept clean. Midden deposits, places where people dumped their garbage, around the perimeter of the structure attest to the practice of sweeping debris against house walls.

The conjunction of midden and posts was especially evident at the northern end of the structure. Here a linear grey stain represents the remains of several large posts which probably comprised a wall. Running in a semi-circle away from the wall stain is a series of smaller diameter post stains. These stains are reminiscent of the wind screens attached to aboriginal houses at the Golden Rock site on St. Eustatius, which date from just prior to this period. The



"house" at the Coralie site seems to have been at least 50 feet long.

Because the archaeological deposits are more than two feet thick, and because adjacent hearths occur at different depths, the site must have been occupied for a substantial period of time. During this time there may have been several episodes of rebuilding. The substantial amount of loose charcoal in the site may indicate that at least some structures were burned. This is a common practice in the tropics where thatched roof houses become infested with insect pests and other vermin after a house has been occupied for five to ten years. The old structures are burned and new houses built nearby.

From top: Dark stains show the deterioration of houseposts (Betsy Carlson). Earthwatch volunteers Carole Haan, Michael Dion, and Barbara Toomey wrap a delicate turtle bone in foil prior to removing it from a hearth (Betsy Carlson). This pottery lug was fashioned in the shape of a turtle head (Ben Castricone).

One episode of rebuilding may have been caused by a rise in sea level. The most deeply buried hearths (cooking fires) are less than 2 inches above the present groundwater table. As a result, the sand around the hearths is constantly wetted by capillary action. Moreover, during "spring tides" when tidal fluctuations are at

their greatest, this level of the site is underwater. It makes no sense to build hearths so close to the water table, especially when the dune on which the site is located slopes upward from the site. The only logical conclusion is that sea level was lower at this time, otherwise daily tidal fluctuations would have flooded the hearths. This finding coincides with recent studies along Gulf Coast Florida, which indicate that sea level was as much as a 2 feet lower than present between 600 and 750 AD.

That the site was flooded in the past is apparent as a wedge of fine sand that overlays the North Creek side of the site. The sand wedge has a flat upper surface and a sloping lower surface which would be expected in the lake-bottom situation that would have prevailed as North Creek flooded the site. Moreover, a conch-shell tool appears to have been partly consumed by boring marine sponges, and turtle bones appear to have been preyed upon by marine worms. These circumstances could only prevail if artifacts

discarded on the surface of the site were submerged for a period of time. These data reinforce the radiocarbon dates, and demonstrate that the site was first occupied before sea level rose to near present-day levels around AD 850.



The Coralie site is one of the most important

Under the rainbow at Coralie Gardens.

archaeological sites in all of the West Indies. It contains evidence from a time period about which very little is presently known. Samples from the site are also giving us the opportunity to recreate what Grand Turk was like prior to its historic deforestation. We are especially fortunate that the owners of the Coralie Gardens development coralie@caribsurf.com, especially Mr. Andrew Newlands, in conjunction with the Turks and Caicos government, have set aside the property on which the site is located. Choice houselots adjacent to the sea, North Creek, and the Coralie archaeological site are still available. We are also grateful for the assistance of EARTHWATCH volunteers and the Turks and Caicos National Museum.

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