

# Caribbean Archaeology

At the Florida Museum of Natural History

## HAITI -- EARTHWATCH EXPEDITION REPORT JULY 1997

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HAITI'S CULTURAL HERITAGE  
June 9 to July 7, 1997  
Cornier Plage and Île à Rat, Haiti

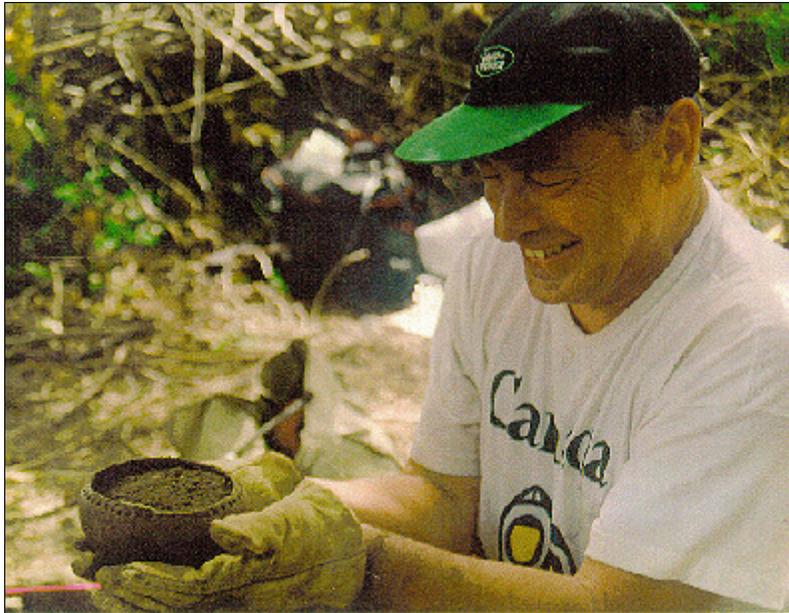
19 EARTHWATCH Volunteers  
Assistants: Brian Riggs, John de Bry, Jean Borchardt, and Betsy Carlson.



### Highlights

With the skills of the surgeon he is, Dr. Dennis Stern began brushing the vertical edge of a ceramic pot. As he carefully worked around the arc, impeded by a jumble of conchs and rocks, the circle began to close. Slowly at first, and then with quickening strokes, he exposed the complete circle of the neck. Delicate round punctations encircled the break where the flaring lip had detached. The anticipation was palpable. But the pottery extended into the next level. "Bring the rest of the unit down to level before you do any more to the pot," I said. "AARGH!" came the reply. You all know the rest. A nearly complete Chican-style bowl from Unit 3.

Who could ask for a better highlight? Overall, the quantity of decorated pottery that we found was exactly what I needed to make sense of the cultural sequence at the site. We found several new decorative motifs and for the first time have some excellent "transitional" designs which show how earlier styles were transformed into later styles (more below).



But that was only the best of many. During Team 2, Rod Nantz found an

Earthwatch volunteer Dennis Stern excavating a nearly complete Chican bowl which dates to AD 1200-1500. (Photo © Betsy Carlson)

unusual Taino flaked-stone blade. This retouched chert blade has side-notches which suggest that it was hafted for use as a knife or spear point. Also, in the lab we identified a piece of an Archaic blade from the deepest level, level 7 (3 feet below ground surface) in Unit 1; although Team 1 found it, they never got the chance to see it. Was there an Archaic occupation of the island, or was the blade picked up by the Ostionan people whose pottery we find at the lowest levels? Only further work will tell.

Other exciting finds were the fishing weights made from both stone and pottery, a variety of shell pendants and beads, inhaler tubes for snorting narcotics, and some great big chunks of charcoal used for radiocarbon dating.

## Objectives

In AD 1492, Haiti was at the center of the most complex, hierarchically organized, society in the West Indies. Despite its pre-columbian importance, very little archaeological research has been undertaken in Haiti. Thus, archaeologists attempting to study cultural development in the region have been hampered by the lack of data from the Haitian heartland. Moreover, the north coast



Beads, pendants, and worked shell. (Photo © Besty Carlson)

played a pivotal role as the center of an interaction sphere that included the Dominican Republic, the Bahamas, and Cuba. Our project was the first step in bringing the precolumbian archaeology of Haiti to light. These Haitian data are providing significant new data for the comparative study of cultural development and change in the precolumbian West Indies.



Taino flaked chert blade (right) and Archaic silex blade. (Photo © Betsy Carlson)

The research sought three objectives: 1) to initiate the first systematic excavation of a deeply stratified archaeological deposit in Haiti, on Île à Rat; 2) to collect information concerning changes in pottery styles and diet through time, and to obtain radiocarbon dates for these changes to develop a baseline for future studies; and

3) to locate and evaluate the two major precolumbian Taino sites described by Christopher Columbus in the Bay de l'Acul.

### Previous Research

Despite its central position in the prehistory of the region, virtually nothing is known of Haitian archaeology. The earliest



Île à Rat, called La Amiga by Christopher Columbus, in the mouth of the Bay de l'Acul. (Photo © John de Bry)

investigations were undertaken by Froelich Rainey and Irving Rouse in the late 1930s. Rainey and Rouse excavated several archaeological sites around Ft. Libertè, near the border with the Dominican Republic. Almost 20 years would pass before Paul Barker, a geography professor at Gorham Teacher's College (now University of Southern Maine) would investigate several precolumbian sites in the Tortuga Island channel, west of the study area. In the 1970s, excavations were undertaken at Bois Neuf, north of Port-au-Prince, by Rainey and his student Pepé Ortiz Aguilu, related archaeological sites were investigated in the Dominican Republic, and pre-Taino, Archaic sites in southwestern Haiti were explored by avocational archaeologist Clarke Moore. But the main archaeological work in Haiti has been projects by the University of Florida at the Spanish colonial town of Puerto Real and at the possible Columbus contact site of En Bas Saline (La Navidad) to the east of the study area. These excavations were directed by Dr. Kathleen Deagan in the 1980s.

My previous work involved a two-day survey of Île à Rat in March 1995, which demonstrated that the entire island is a site. I returned to Haiti for one week in February 1996 with a team of students and volunteers. The research was hampered by inclement weather which limited us to one and one-half days on Île à Rat, and a total of 5, 50 cm<sup>2</sup> test pits. We were also taken to visit a previously undocumented precolumbian site near the village of Meillac where Rouse worked in the 1930s. With funding from the



Morne Rouge, the site of the first European copper mine in the Americas. (Photo © Betsy Carlson).

American Philosophical Society I returned to Haiti in June 1996. Working from a base at Cormier Plage, Betsy Carlson, John de Bry, and I conducted pedestrian walkover surveys of coastal and upland locations between Bas Limbè and Cap Haitien. We identified 11 previously undocumented precolumbian sites. We also spent one day making test excavations on Île à Rat and two days testing near the tennis court at Cormier Plage. Our research in June 1997 built upon these previous investigations.

## Methods

This year's research involved standard excavation techniques. In keeping with past successes, we opened contiguous 2 by 2 meter blocks ("units"). In the time available we completed five units to a depth of 80 cm (32") below ground surface. This is the depth at which we encountered sterile sand. The excavation was done primarily with pointing trowels and brushes, although finer tools were occasionally used. [Thanks to Bob Gezon for his glue brushes and to Ben Castricone and Patti Yamane for the dental tools.] As artifacts were exposed their horizontal relationships were recorded on graph paper and their depth was measured using either line levels or a builder's level (transit). All of the soil was screened through 1/4 inch- mesh screen. Fine screen (window mesh) voucher samples were taken from each level to recover very small fish and reptile bones and plant remains. All of the stone, shell and pottery artifacts are in storage a Cormier Plage. Charcoal and bone samples were brought to Gainesville for analysis.

## Volunteer Tasks and Accomplishments

Volunteers were involved in all aspects of the research. Because we were limited in the number of people we could carry on the boat to the island, and because we generated a substantial amount of material each day, several volunteers assisted Jean in the laboratory every day while the remainder went to the island to excavate the site. We worked Wednesday through Sunday each week, with Monday and Tuesday off because the island was occupied by day snorkelers. Most of the work at the site involved the careful excavation of buried deposits. Volunteers worked alone or in pairs (sometimes 3 to a unit) excavating with pointing trowels, brushes and a variety of smaller tools. Most of the decorated and unusual artifacts were plotted on maps. Volunteers did their own mapping (with our assistance). The other major activity at the site



Earthwatch volunteers on Île à Rat.  
(Photo © John de Bry)

was screening the soil from the excavations through 1/4 inch mesh and bagging artifacts, shells, bone, and charcoal that was not removed directly. Due to the hard work of all involved virtually all of the excavated materials were completely analyzed in Haiti.

## Results

We recovered almost 40 pounds of potsherds, hundreds of rocks that were brought to the island from the mainland (and we brought back!), and what seemed like tons of mollusk shells. These materials provide the baseline data we need to achieve the project that was curated (kept in use) for a long time. The other pottery at this level is very well made, thin, and typically red painted. It fits clearly in the Ostionan style which developed in Puerto Rico around AD 300 and spread west beginning around AD 500. This is the earliest ceramic style known from Haiti, although only one small Ostionan site has been excavated and the full range of the style is not yet known.

There is an excellent transitional sequence between Ostionan and Meillacan styles represented at the site. Some archaeologists have suggested that the Meillacan style represents a new migration of people into the Greater Antilles from northern South America. The overlap in styles that we see on Île à Rat, suggests that there was a slow transition between styles and not an abrupt displacement, as one would expect from new immigrants. For the first time we see broad-line incisions on both red (Ostionan) and black (Meillacan) pastes.



Pottery sherds with broad-line incision in the Meillacan style, circa AD 700- 1000.  
(Photo © Betsy Carlson)



Pottery sherds with fine-line incision in the Meillacan style, circa AD 700- 1000.  
(Photo © Betsy Carlson)

There are also ridges around the shoulder, typical of early Meillacan and here seen on Ostionan sherds, and the use of appliqué and hatching on both Meillacan and Ostionan sherds from about the same level. Ostionan sherds exhibit the typical forms of hemispherical bowls and hammock-

shaped vessels with loop handles at either end. Higher up in the level the majority of the pottery is classic Meillacan: thin, hard, dark colored, and decorated with fine-line incisions. Most of the bowls are carinated, in other words they turn inward at the shoulder. Elsewhere, Meillacan pottery has been dated as appearing around AD 600 in the central valley of the Dominican Republic, and then spreading north and west across Haiti and over to Jamaica, Cuba, and the Bahamas. It is supposed to have disappeared from the north coast of Haiti by AD 1200.

A different situation occurs between the Meillacan and Chican levels. First, there is a 12 cm wide strata composed of lighter color sand and few artifacts. Of interest is the presence of lots of beach washed coral and some potsherds that were obviously rounded by being washed around on the beach. This semi-sterile layer seems to reflect an episode of inundation, when the island was flooded by one or more severe storms and perhaps the slight rise in sea level (about 30 to 90 cm) that occurred around AD 1100. Although a few Meillacan sherds were found in the upper levels, there is little mixing across this strata. Another interesting clue is that below this strata the conchs have much longer nodules (the spine-looking structures around the spire) than do those in the upper levels. The length of spines has been related to water turbulence. Thus, the longer spine conchs came from a more high-energy reef flat.



The upper layer is

Bill Keegan and Brian Riggs draw stratigraphic profiles of the excavation unit.  
(Photo © John de Bry)

dominated by Chican-style pottery. The most common decorative motif is double rows of punctations around the shoulder of a bowl that had an out-flaring rim. Our nearly complete bowl is in this style. The pottery tends to be thicker, lighter in color (more orange brown), and there is a greater variety of vessel forms: cooking pots, small bowls, plates, platters, and bottles.

Chican pottery originated in the southeastern Dominican Republic around AD 600 and spread in all directions beginning around AD

800. It is supposed to have replaced Meillacan pottery in the area we were working around AD 1200. Of special interest is the large number of stone and pottery net weights found in the Chican levels. These weights are virtually absent from the lower levels. This suggests that there was a change in fishing strategies during this time period. There is virtually no mixing of Chican and Meillacan styles in the deposit.



Pottery sherds from a single large bowl with double row of punctations in the Chican style, circa AD 1200-1500. (Photo © Betsy Carlson)

With funding from the Heinz Foundation two large charcoal samples were radiocarbon dated. There are five distinct strata in the excavations, only two of these were dated. From ground surface to 18 cm below datum there is a root zone with a few archaeological materials but mostly a recent accumulation of soil. From 18 to 36 cm there is a dense concentration of conch shells and most of the pottery is in the Chican style. Between 36 and 50 cm there is a mostly sterile layer, as if the island was washed over by storms and covered with sand. From 50 to 66 cm there is another dense layer of conch shells and most of the pottery is Meillacan. A single large piece of charcoal from this strata (52 cm below datum to be exact) yielded a mean calibrated radiocarbon date of AD 1295 +/- 70. The deepest level, 66 to 84 cm, was also dated. Here a single large piece of charcoal, from 69 cm below datum, gave a mean calibrated date of AD 905 to 950 +/- 50. At this depth the pottery includes both Meillacan and Ostionan styles. By 84 cm below datum the deposit has completely disappeared.

Based on our findings it appears that there were permanent habitations on the island, and not just fishing camps. Much of the pottery is decorated, some bowl fragments have burned food remains on their interiors, and there are a substantial number of griddle sherds which were used to bake cassava bread. There would be far less decorated pottery if this was simply a fishing camp. In addition, the remains of meals are apparent in the quantity of small mollusks and fish bones that we recovered. These deposits do not look like the product of short-term occupations. Further investigations should reveal the locations of house structures. The excavations we just completed appear to have been in a midden deposit (garbage dump).

In fact, the island is the ideal location for a small settlement. It is located amidst abundant marine resources, it affords a vantage of the entire bay, and it is breezier and probably less mosquito infested than the mainland. From Île à Rat a local chief could

control trade and resource extraction along a substantial length of coastline.

The big question is where their drinking water would come from, though it is possible that the island supports a small freshwater lens, probably just behind the beach. In addition, Betsy and



Stone net sinkers from the Chican strata.  
(Photo © Betsy Carlson)

John found a spring on the eastern point of the entrance to the Bay de l'Acul, a short boat ride away. Even if there were not permanent structures on the island, there is evidence that they over-exploited the resources in the area. The most common fish in the site is stoplight parrotfish (**Sparisoma viride**), and a variety of other small fishes that are commonly caught in basketry traps. The shift to fishing nets that appears in the Chican level reflects a further intensification of fishing strategies. Throughout the deposit the conchs are extremely small, averaging about 11 cm in length. The legal size for conchs today is about 20 cm long. In addition, the lower deposits have more clams (e.g., **Anadara**, **Codakia**) and oysters than do the upper levels, perhaps due to a change in the local environment from over-fishing. Overfishing is also reflected in the diversity of mollusks in the site. 85 different kinds of clams and snails, most quite small, were identified in the deposit.

We have now moved into the stage of entering numbers into the database and documenting the changes that I observed as the materials were excavated.

### **Other Accomplishments and Benefits**

Aside from the spectacular materials recovered during the excavations, the major accomplishment was reaching an accord with the Haitian National Bureau d'Ethnologie. During team 2, John de Bry and I had five meetings, including a day trip to Port-au-Prince, with representatives of the National Bureau d'Ethnologie and the United Nations Route 2004 development project. I have been offered a protocol of agreement that would see the University of Florida providing the professional assistance for an inventory of cultural patrimony on the north coast of Haiti in collaboration with the Bureau and the UN. We also received a permit from the National Bureau d'Ethnologie for the excavations on Île à Rat.

## Acknowledgments



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Cormier Plage. (Photo © Frank Keegan)

