

EXCAVATIONS IN JAMAICA

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THE PURPOSE of this paper is to report the results of excavations conducted in 1933, as yet unreported, and to correlate the findings with present knowledge of Jamaican and other West Indian prehistory. Descriptions of the sites and specimens may be of value to archaeologists in this area.*

Since 1933 great strides have been made in archaeological knowledge of the West Indies. Irving Rouse has correlated known cultures in most of the Greater Antilles and in some of the Lesser Antilles. He has established seven arbitrary time periods, I, IIa, IIb, IIIa, IIIb, IVa, and IVb, for the area (Rouse, 1939, 1941, 1948, 1951, 1952) on the basis of stratigraphy, seriation of modes, establishment of style sequences, and cross-dating of trade objects. During these periods four cultures existed. The period I culture is preceramic and is associated with the Ciboney Indians who may have come from North America. The first ceramic culture, Igneri, is associated with the Arawak Indians, who pushed north and east from the Orinoco Valley in period II. It lacks the ceremonial complex which distinguishes the two later ceramic cultures, sub-Taino and Taino, which developed in the Greater Antilles during periods III and IV, the former as a simpler variant of the latter.

The period II ceramics in the Greater Antilles are so similar to the contemporaneous pottery of the Lesser Antilles and the Lower Orinoco that they have been grouped together as the Cuevas horizon style. (Cuevas was called "Crab Culture" by Rainey, 1940.) These potsherds are fine and thin. In profile the bowls are sinuous with an outward flare. Ribbon handles, the majority D-shaped, and plain, tabular lugs are characteristic. Red paint is applied to areas such as the lip or lug. Striking

* Materials recovered were given to the Museum of the American Indian Heye Foundation. The staff has been most cooperative in allowing us to restudy and photograph the Jamaica specimens. The photographs were taken by Stephan Williams of the Department of Anthropology, Yale University. We are indebted to him, but above all to Doctor Irving Rouse of the Caribbean Program, Department of Anthropology, Yale University, whose perceptive criticism and continuing assistance made this paper possible.

white-on-red designs occurred in period IIa but are uncommon. Incised sherds are rare (Rouse, 1948, p. 511; 1951, p. 255).

In periods III, a and b, Rouse (1951, p. 256) has defined four ceramic styles: Ostiones, Santa Elena, Meillac, and Baní. Ostiones and, to a lesser extent, Santa Elena, both Puerto Rican styles, reflect Cuevas influence which becomes less distinct late in the period. Early Ostiones sherds retain such characteristics as painting or polishing of restricted surfaces but bowls are straight-sided instead of bell-shaped and handles looped rather than D-shaped (Rouse, 1951, p. 256). Incision is common. Paint is rare and, if used, covers all surfaces.

Meillac in Haiti and Baní in Cuba are alike and contrast with Cuevas. The ware is coarse and poorly made, and shapes are not graceful. Incision and modeling are the favorite forms of decoration (Rouse, 1951, p. 257).

In discussing this middle Arawak culture (period III) in the Greater Antilles, Rouse points out that ceramic styles "tend to cluster around the passages between the islands rather than the islands themselves" (Rouse, 1951, p. 260). For example, Ostiones pottery of western Puerto Rico is much like that found in the Dominican Republic. Thus he sets up three areas: the Vieques Sound Area to the east, the Mona Passage Area in the center, and the Windward Passage Area, which includes Jamaica.

In periods IVa and IVb, five new styles are defined by Rouse (1951, p. 258). Boca Chica, the most elaborate, is the key style, of which the other four are variations. Carrier is the Haitian variety. Throughout this period, ball courts and other ceremonial structures and artifacts appear, especially in Puerto Rico and the Dominican Republic, which were the centers of Taino culture.

Rouse has studied and correlated Jamaica collections in this country and Europe but has done no field work in Jamaica. R. R. Howard, in 1949 and 1950, made a thorough survey of Jamaican material in collections, did some collecting himself, and reached the conclusion that until stratigraphical excavation is done in Jamaica no final conclusions can be made concerning pre-Columbian cultures of that island (Howard, n.d., pp. 155, 160). Jamaican cul-

ture certainly belongs to the sub-Taino group, with its less developed ceremonial complex than the Taino. The pottery is locally variant from, but generally resembles Meillac in Haiti (Howard, n.d., p. 155) and Baní in Cuba (de Booy, 1913, p. 432). Howard (n.d., pp. 136, 145) identifies only one other ceramic division in Jamaica, a sub-style which he calls Montego Bay.

There is no stratigraphical evidence to place the culture and ceramics of Jamaica on the time scale, but Howard draws certain tentative chronological conclusions. No evidences of preceramic Ciboney cultures of period I, such as Couri in Haiti or Coroso in Puerto Rico, have been found. The Cuevas horizon style of period II, has not been reported from Jamaica. There is no known evidence of Carrier, or of other ceramic styles of period IV. Hence, the only cultural and stylistic units recognized in Jamaica, sub-Taino culture, the Jamaican Meillac style of pottery, and the Montego Bay sub-style, fit into period III and appear to have continued basically unchanged into period IV.

The material collected by us verifies the existence of the Jamaican Meillac style and Montego Bay sub-style and, in addition, indicates the presence of an hitherto unreported, Puerto Rican like style. Our material comes from three sites, Little River, Little Nigger Ground Hill, and Windsor (Fig. 84) which we shall discuss in turn.

LITTLE RIVER SITE

Little River middens are located at the mouth of the Little River, a small stream half-way between Roaring River and Maumee Bay (Fig. 84). At this point there is a narrow strip of flat land between sea and plateau. These middens are on the east bank of the Little River, where it enters the sea. The site was not mapped. Land crabs had carried potsherds from their holes, calling our attention to the site. The largest midden, about two meters high, was half washed away by the sea at that time and may well be completely washed away by now. From this bank a sample of about 225 sherds was taken. Only 31 were saved.

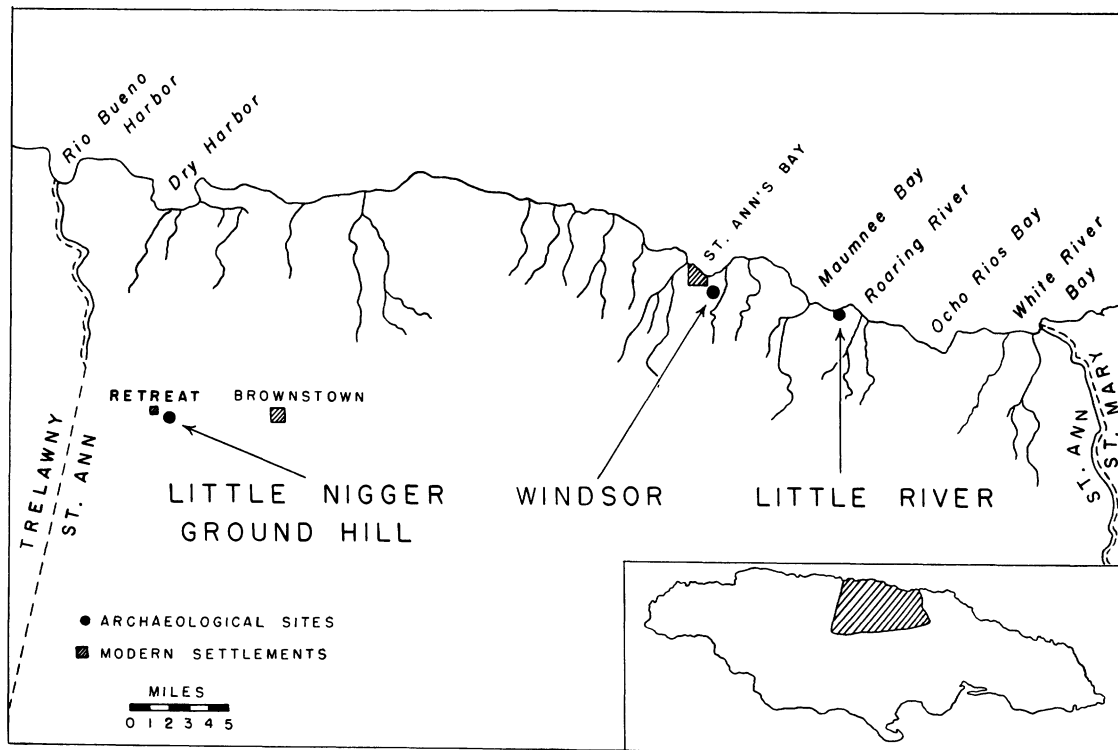


FIG. 84. Sites in St. Ann Parish, Jamaica.

The Little River collection of sherds (31) is too small to warrant statistical study. However, the prevalence of certain modes and lack of others strongly indicates that these sherds belong to a style under Puerto Rican influence and not to Jamaican Meillac. We present first a general description, next specific examples, and then a comparison with Jamaican Meillac and with the Cuevas and Ostiones styles of Puerto Rico.

At Little River there are two kinds of cooking pottery: griddles (burens) and other vessels. Little River griddle sherds are 2.2 cm. thick, made of coarse ware, rubbed smooth on top. Hardness on March's (1934, p. 20) Moh scale is 2.5-3.0. These characteristics are typical of most West Indian griddle sherds, which do not differ materially from culture to culture, presenting few diagnostic clues. Their presence is important, however, in that it indicates cassava as a food and, therefore, an established agriculture. There are 26 sherds from cooking pots. The ware is medium fine grained with the exception of one coarse-grained sherd. Only 5 are completely fired through, the others showing a dark, softer center at the fractures. Firemarks are seen on 9 sherds. Half of the sherds are 2.0-2.5, half 2.5-3.0 on the hardness scale. The sherds have a dull ring. There are intrusions in the clay, which seem to be natural. Clay color varies from shades of brick red through salmon to light yellow tan with six examples of oyster grey. Most of the sherds are small and thin, averaging 0.5 cm. in thickness with variations from 0.4 to 0.7 cm.

Shape of the vessels is difficult to determine from the majority of the sherds, which are small, but there are examples of oval, boat-shaped, and, probably, of hemispherical vessels. Some sherds are from shallow bowls. The bodies of the vessels rise fairly straight or turn inward slightly at the shoulder. There is no example of outward flare. There is definite taper from rim to lip in the 17 rim sherds. Fifteen sherds taper down from a thickness of 0.5 to 0.3 or 0.4 cm. (Fig. 85, c). In distinguishing between lip and rim we are following Rouse's (MS) analysis of Cuevas potsherds. Lips are rounded or flat with only three examples of slight inward bevel (Fig. 85, h). One lip rounds outward with a slight flare (Fig. 85, b).

Decoration of our Little River sherds is largely confined to handles and lugs and to surface treatment. We obtained four handles attached to vessels (Fig. 86, a, c, f) and a fifth broken off. These vary in length from 5.2 cm. to 2.0 cm. The largest is D-shaped, when viewed in profile, and was attached to an oval shallow pot (Fig. 86, a). It is graceful with smooth flowing lines. Two others are D-shaped (Fig. 86, f), and the remaining two looped, i.e., they rise above the rim of the vessel (Fig. 86, c). The ware of four of the handle sherds is medium fine, the fifth coarse. Two have been rubbed smooth. There are no lugs or painted areas on these sherds. One handle, the smallest (Fig. 86, f), is slightly in-

dentured or ridged, with raised edges. This sherd appears to be from a miniature pot, which was 2.0 cm. deep. Such miniature or paint pots, known from other islands, have not previously been reported from Jamaica (Howard, n.d. p. 155).

There are four examples of lugs, three of which are amorphous and one an incised tab. Two of the amorphous lugs are crude nubbins placed above the angle of the shoulder. One of these was made by thumb pressure and is crescent shaped (Fig. 86, e). The third is on the keel (Fig. 86, h). The tab lug is badly worn, its surface peeling and cracked (Fig. 86, j), but was in better condition when collected in 1933. It is lightly incised with three radiating lines and has flecks of red paint near the edge. One sherd (Fig. 86, b) has a curving, narrow, molded strip on the side wall. It is not in high enough relief to be considered as a lug.

The other main form of decoration consists of paint and rubbing applied to areas of the vessel surface. Eight sherds are painted, seven of them red. Four are spotted haphazardly with red. One of these has in addition, a

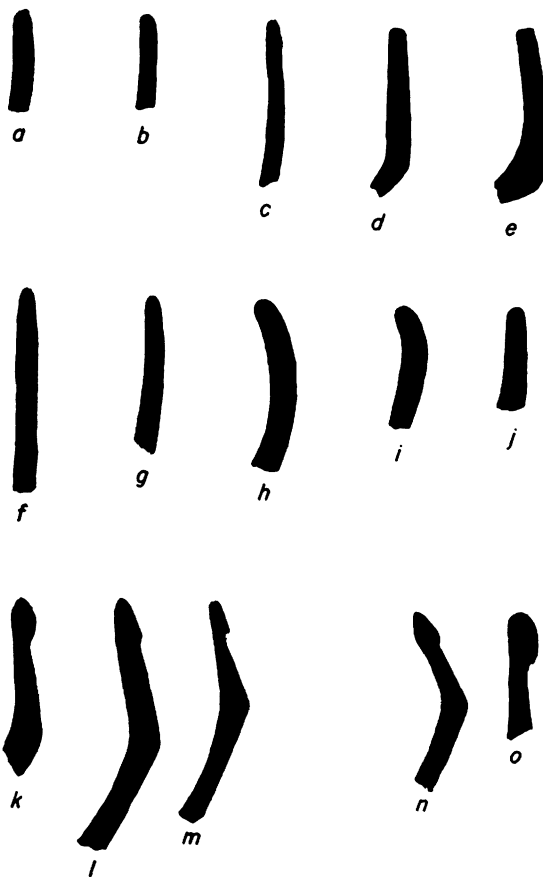


FIG. 85. Rim profiles of pottery from St. Ann Parish, Jamaica. a-j, Little River; k-m, Little Nigger Ground Hill; n, o, Windsor.

hair line of red on the flat-topped lip (Figs. 85, *a*; 86, *g*). This sherd is well rubbed on the inside but rough outside. Three sherds are painted red in certain areas. One of these is the best molded of the amorphous lug sherds (mentioned above), painted light red on the lug and above the shoulder inturn (Fig. 86, *h*). One small sherd is painted outside from rim to shoulder in a streak 3.5 cm. wide. The remaining 2.0 cm. of the sherd is unpainted tan clay. The third areally painted sherd is the one with the curving ridge, described above. This is painted brown red above and below the ridge (Fig. 86, *b*). The eighth painted sherd has a yellow band about 0.6 cm. wide on the inside from the rim to the bottom break. The rest of the sherd is well-rubbed, medium brick red with firemarks outside.

None of these sherds are polished. They do not reflect light. Twenty-one are well rubbed on one or both sides. They are not scraped since intrusions at the surface have not been forced in the center. Rubbing gives the sherds a dull mat finish, which is pleasing. Sometimes one area is rubbed to enhance a particular feature, perhaps the handle, but usually the whole surface is treated. Areally painted sherds are rubbed over the paint. Paint-flecked sherds are not rubbed at all. The only example of incision is the tab lug mentioned above (Fig. 86, *j*). Since it is fairly certain that sherds discarded were not incised, this incised sherd is probably the only one in about 225 sherds examined. This is a low incidence of incision.

To summarize, even a cursory study of this Little River group of sherds shows certain characteristics in common. These are: curvature of the surface; simplicity of decoration; ware medium fine grained but poorly fired; color, reds, tans, and greys; average thickness 0.5 cm.; shape, open bowls with some flat bottoms; shoulder, straight or incurving; rim, tapered to the lip; lip, rounded or flat; D-shaped handles, amorphous and tab lugs; some painting and rubbing of restricted areas.

How do these traits compare with those of two established styles in Puerto Rico and one in Jamaica? Cuevas, the earliest style in Puerto Rico, has many traits in common with the Little River group. The high incidence of D-shaped and loop handles and the presence of red paint, are Cuevas characteristics. To be sure, Little River painted sherds resemble only the crudest examples of Cuevas painting, and loop handles are characteristic only of late Cuevas. Cuevas material also includes the Little River type of amorphous lugs. (They are not, however, the favorite Cuevas type of lug.) The fact that incision is rare further links Little River to late Cuevas (period IIb). The slightly tapering rims of Little River are sim-

ilar to one-third of all Cuevas rims, a higher proportion of which are from the west and south Puerto Rican coasts (Rouse, n.d.). Hardness and thickness of both groups are the same.

The Cuevas modes found at Little River are those which continued to be popular in the early Ostiones style of Puerto Rico. On the other hand, the sinuous profile, outward flare, and white-on-red painting of Cuevas are not found either in early Ostiones or in the Little River artifacts. The ware at Little River is not fired as well nor polished in the Cuevas tradition and this is also true of Ostiones. Neither Ostiones nor Little River sherds, for example, "ring like fine porcelain" (Rouse, 1952). Little River also lacks the traits characteristic of late Ostiones, such as incised designs on the vessel wall and modeled "bat-head" lugs. Thus, it seems closer to early Ostiones than to either the Cuevas or the late Ostiones style.

There is a subtle resemblance between Cuevas-Ostiones and Little River difficult to pin down. Our original field notes written with no knowledge of the Cuevas material state "from an artistic point of view this lack of decoration is more than offset by the simple beauty of graceful and flowing line." Rouse (n.d.) comments in the same vein, ". . . the Cuevas sherds have an appearance of sleekness. This is true not only of the vessel walls, which are well rubbed and polished, but also of the lugs, handles, and other features of decoration which seem almost sensuous in their smoothness and simplicity."

The contrast between Jamaican Meillac and Little River is sharp. D-shaped and looped handles and paint are not present in Jamaican Meillac, nor are flat bottoms. The Meillac sherds are thicker and have thickened rims or rim ridges. Although Jamaican Meillac has a lower percentage of incised and affixed decoration than has Haitian Meillac, this percentage is far greater than Cuevas, early Ostiones, or Little River. Variations in thickness and curvature of the surface are uncommon in Jamaican Meillac. The most marked similarity between Little River and Jamaican Meillac is that both styles lack outward flare and both are poorly fired.

It must be borne in mind that the Little River group is so small that comparison with established styles can only be considered interesting and indicative, not in any way conclusive. Yet, while Little River cannot be es-

established as a distinct style nor placed accurately in the time scale, it does appear to be an extension of the Cuevas-Ostiones stylistic tradition and will probably be eventually dated early in period IIIa. By this period in Puerto Rico, Cuevas pottery had developed into early Ostiones (Rouse, 1952). The diffusion, if diffusion it be, from Puerto Rico to Jamaica probably took place early in the development of Ostiones forms and certainly well after the peak of period II, when polychrome pottery flourished, since sherds of such pottery are not seen at Little River. There are no examples of Little River pottery comparable to the best of the Cuevas period.

The artifacts other than pottery found at Little River are not diagnostic. One deep grey flint scraper, and five flint pieces, patina white, all have worn edges. The absence of ceremonial artifacts points to the Igneri division of Arawak culture, as in the supposedly contemporaneous sites of Puerto Rico.

Two bones were collected from the Little River midden. One was identified by the American Museum of Natural History as probably goat or sheep leg bone, but has been catalogued by the Museum of the American Indian as a fragment of human bone. It is 10.0 cm. long and has a hole bored into the "knuckle." It was embedded in yellow earth, in which some sherds, including the smallest handle, were found. The yellow earth is at the edge of the midden, the main part of which is formed of black earth. This yellow strata is on the Little River side of the midden and could have been deposited by the stream in flood. At the same time the outer part of the midden could have been disturbed and re-deposited containing the recent bone. The second bone was identified as *Pseudoscarus* or *scarus* (parrot fish).

There were few shells in this midden, a much lower percentage than in the other two middens to be reported. Comparatively shell-free middens are characteristic of Igneri culture in Puerto Rico, as is also the location of the Little River site near the shore (Rouse, 1952).

LITTLE NIGGER GROUND HILL SITE

The site excavated at Little Nigger Ground Hill, Retreat Pen, near Brownstown (Fig. 84), is 6 miles inland at an altitude of 1200 feet. This site had been mapped, excavated, and described in 1913 by de Booy (1913, p. 427).

Previously, in 1896, Duerden had collected there and before him, Barrett (de Booy, 1913, p. 426). In 1933, the owner, Mr. Alexander Ranby-Smith, was most cooperative in allowing us to run a trench through a midden not excavated by de Booy. On the eastern brow of the hill, it lies between No. 6 and No. 7 on de Booy's chart (1913, p. 427).

A trench two feet wide and fifteen feet long was cut through from east to west. Ten feet from the eastern edge ashes were found and the trench widened to a circle about five feet in diameter. Here were the richest finds. In cross section there was a two-inch layer of sod, a six to eight inch layer of dark earth, and a two-foot layer of dark earth and shells upon undisturbed light earth. Potsherds were found throughout the first three layers. Of those found, 77 sherds or between five and ten per cent were kept.

The potsherds match those found by de Booy (1913, Pls. 32, 33). Griddle sherds, boat-shaped vessels, a face handle (Fig. 86, o), applied strips (Fig. 86, k), incised lugs (Fig. 86, p), and ridged rims (Fig. 86, l) are represented. The only mode which de Booy found examples of at this site and we did not is the zoomorphic lug handle.

Since Jamaican Meillac of this type has been frequently described and is well established as a style (Howard, n.d., pp. 135 ff.), it would not be profitable to go further into the modes represented in this group of sherds. However, two atypical sherds will be mentioned. One shows a new type of punctuation for Jamaica, like that from Diale, Fort Liberté, Haiti, which Rouse (1941, Pl. 13:10; p. 71) says probably was made with cane or bird bone. The other sherd is incised in an irregular fashion with a design like that seen on two sherds on exhibition at the Museum of the American Indian, labelled "Cuban."

The objects other than potsherds are also, with the exception of the crocodile pendant described below, generally typical of Jamaican Meillac sites. Of the hundreds of shells only three were kept. These were identified by the American Museum as *Pleurodonta bainbridgei* (Pfeiffer) and *Pleurodonta jamaicensis* (Gmelin). De Booy (1913, p. 431) found other species of *Pleurodonta* but has not listed these. They are so uncommon that the American Museum of Natural History added our specimens to their shell collection. Howard (n.d.,

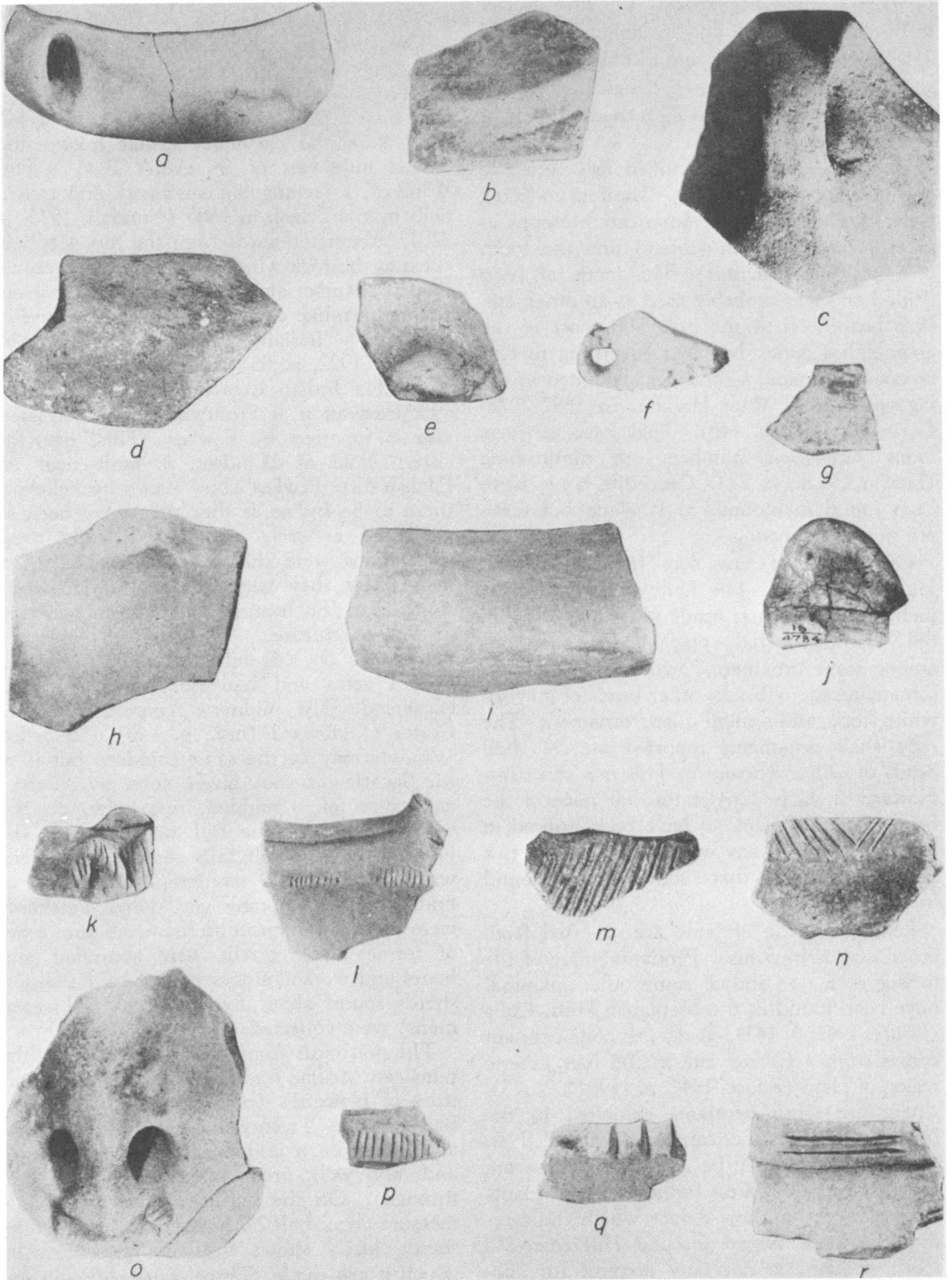


FIG. 86. Potsherds from St. Ann Parish, Jamaica. *a-j*, Little River; *k, l, o, p*, Little Nigger Ground Hill; *m, n, q, r*, Windsor. (Scale varies.)

pp. 124-5) does not include the first species in his list of shells found in Jamaica middens. The second is listed by him as *Helix jamaicensis* (Gmelin), the former designation. Shell identification lists should be rechecked in light of modern classification.

The bones were unidentified fish vertebrae and bird and animal bones. The few collected were identified by the American Museum as *Geocapromys brownii* (coney) and the tooth of a crocodile (? *acutus*). This tooth has been drilled and was probably used as an ornament. It is broken off at the hole and most of the enamel has gone. It is not surprising to find crocodile remains. Crocodiles abounded in the lagoons around West Harbour in 1897 (McCormack, 1897, p. 448). They exist in rivers today but their numbers are diminishing (Howard, n.d., p. 23). Crocodile bones have been found in mounds at Portland but teeth are not mentioned.

Ornaments of any sort from prehistoric Jamaica are rare. The Lady Blake collection includes some quartz beads (Cundall, 1894, p. 68). Howard (n.d. pp. 117-18) mentions among stone ornaments, two marble amulets, some chalcedony beads, other beads of greyish-white stone, and a small quartz ornament. The only shell ornaments reported are 32 shell beads of *Oliya reticularis*. This is a short list. Howard (n.d., p. 126) states that none of the bone material "seems to have been utilized in the technology in any way." Thus, if this is a pendant, it is the first such ornament found in Jamaica.

Pendants made of bone are reported from other islands by Rouse. Pendants made of the incisor of a dog and of some other mammal have been found in the Maniabón Hills, Cuba (Rouse, 1942, p. 143). A ray fish bone pendant comes from a Carrier site in the Fort Liberté region of Haiti (Rouse, 1941, p. 149; Pl. 26:23). There are tooth pendants exhibited in the Museum of the American Indian, labelled St. Vincent, which may be crocodile. These are the only reported West Indian tooth pendants known to the author, a fact which indicates that the Little Nigger Ground Hill crocodile tooth pendant is not only atypical for sub-Taino culture in Jamaica but is rare throughout Taino and Igneri cultures as well.

WINDSOR SITE

The third site excavated by us is at Windsor, St. Ann's Bay, St. Ann County, then the property of Mr. A. Constantine Goff, who at that time ran a small hotel. Here, on a hill overlooking the sea about a mile inland and half a mile east of St. Ann's Bay, is Fort Windsor, a rectangular earthwork and trench built by the British in 1803 (Cundall, 1915, p. 320). About ten yards from the fort is a hole cut into the rock which widens into a beehive-shaped chamber about ten to fifteen feet deep. This cistern-like cave closely resembles one in Barbados, "Indian Castle," described by Fewkes (1922, p. 85) and considered by him a possible Indian excavation. A rectangular rock excavation at Freshwater Bay, Barbados, also is reported by Fewkes. This, like the cistern hole at Windsor, is built near an English fort. Fewkes' chief reason for believing these to be Indian is that they have been so attributed as early as 1750. Possibly these excavations were dug by Indians, but if so, it is likely they were working under white supervision. Such projects are not encountered in Arawak culture.

Middens on this hill and hillside covered several acres and had not previously been excavated. The middens reported by C. S. Cotter to Howard (n.d., p. 146) and called Windsor may be the same middens but if so the location is not given correctly. Partial excavation of a midden, test holes, on the western brow of the hill was made at the point where the hill falls sharply to a steep walled ravine. No stratigraphical record of finds and no mapping was done. Potsherds were frequently encountered near the ashes of former fires. Shells were abundant and bones and worked stones present. Of the potsherds found about five per cent (28 specimens) were collected.

The potsherds from Windsor site are in the Jamaican Meillac tradition but have characteristics of Howard's (n.d., pp. 145-6) Montego Bay sub-style. Twenty-six sherds are from pots and one from a griddle. The ware is coarse and not well fired (only eight are fired through). On the hardness scale the sherds measure about half 2-2.5 and half 2.5-3.0. One sherd clearly shows the coiling process by which it was made. Three courses of coils are easily distinguishable. The thickness of the sherds varies from 0.5-1.0 cm.

The shape of the Windsor vessels cannot be clearly visualized from the small sherds, many of which are flat. There are two keel sherds, one angular and one curving, both inturned. There is one example of twisted rim, a mode not previously reported from Jamaica. Twisted rims are found in Puerto Rico among Ostiones sherds (Rouse 1952). They are not diagnostic of Haitian Meillac.

Of the seventeen rim sherds, fourteen have reinforced rims in typical Meillac fashion. The remaining three rims are plain.

There are eight incised sherds. This is the group which sets the Windsor sherds apart from Little Nigger Ground Hill and other Jamaican Meillac. Howard's sub-style, Montego Bay, has a high incidence of similar incision. These eight sherds are 0.5-0.8 cm. in thickness. Four are incised on the rim area (Fig. 86, r). Of these, three designs are broken parallel lines and the fourth curvilinear parallel lines similar to Howard's (n.d., Pl. 3:6) specimen. One sherd is incised with twelve closely spaced parallel lines (Fig. 86, m). A keel sherd is decorated with alternating oblique parallel lines (Fig. 86, n). The incision on all these sherds is deep (about 0.1 cm.) but narrow. The rough edges burred by the tool have not been smoothed off. As Howard (n.d., p. 146) points out this sort of incision is not characteristic of Jamaican Meillac. At Windsor incision occurs more frequently than in the usual Jamaica style.

Lugs are less diagnostic of this subtype than is incision. Two lugs are present in this group. One is a small cleat lug on thin hard pottery typically Meillac. The other fits better into Montego Bay sub-style. It is a ribbon lug, deeply grooved perpendicularly (Fig. 86, q).

Two sherds are of massive ware, 1.0 cm. thick and reddish tan in color. Since one is a fragment of the bottom of a pot and the other a body sherd, probably below the keel, it is not surprising that they are undecorated. Sherds as thick and heavy as these are reported by Howard in the Montego Bay sub-style.

The few shells collected were identified by the American Museum as *Pleurodonta acuta* (Lamarck), *Pleurodonta jamaicensis* (Gmelin) and *Cokakia tigerina* (Lamarck). None of these is in the Museum of the American Indian.

Of the bones from this midden, one, a fish bone, is in the collection. Bones of a lizard and coney bones, mentioned in the field notes, were collected but have gone astray. Two stone chips in the Museum of the American Indian collection are of little interest.

We also obtained from the Windsor Pen overseer a stone head, 6.0 cm. high, perhaps a pestle handle. His son had found it in a stream bed below the hill where the middens are located. This head is still in our possession. It is reminiscent of a cruder pottery head in the Institute of Jamaica (Howard, n.d., Pl. 3 a, b). The circle outlining the eye is also seen in a specimen from El Mango, Maniabón Hills, Cuba, a sub-Taino site (Rouse, 1942, Pl. 7, L). Such a surface find has no value in solving problems of chronology and sequence but this example is of such high quality of artisanship that it is interesting in itself. If the product of a local craftsman, it bolsters Peter Martyr's statement that the inhabitants of Jamaica were better craftsmen than inhabitants of the rest of the Greater Antilles (Joyce, 1912). No one would attempt to uphold such a statement with material now known from Jamaica.

CONCLUSIONS

The three sites discussed above, Little River, Little Nigger Ground Hill, and Windsor, when considered in the framework of Rouse's (1951) recent synthesis fall into three time periods.

Little River artifacts are Ostiones-like and are therefore the first indication of Arawak presence in Jamaica during the earliest part of period IIIa (estimated to date from the thirteenth century, A.D.). Since the style is unmixed with others, the specimens are not believed to be trade sherds. Thus we see that influence from Puerto Rico extended to Jamaica either early in IIIa or, if Little River is a survival, later in period IIIa. It is even possible that it coexisted with Jamaican Meillac.

Sherds from the Anadel and San Juan sites in the Dominican Republic are also Ostiones-like (Rouse, 1951, p. 256). In Haiti sherds of the same style have been found mixed in with the earliest Meillac pottery (Rouse, 1941, Pl. 25: 18-25). Rouse (1951, p. 257) assumes that these specimens "mark the extension of the original Arawak migration westward from Puerto Rico at the expense of the Ciboney."

It would thus seem that the Ostiones style of period IIIa formed part of a horizon extending through the Greater Antilles, except for Cuba. If so, it cut across the three culture areas proposed by Rouse (1951, p. 261), namely the Windward Passage, the Mona Passage, and the Vieques Sound Areas.

The two other sites, Little Nigger Ground Hill (Jamaican Meillac) and Windsor (Montego Bay sub-style of Jamaican Meillac ?) offer examples of traits which are common to the Windward Passage Area in period IIIb (esti-

mated to date from the fourteenth century, A.D.) and period IV (proto-historic). The specimens, which show no Puerto Rican traits, are in sharp contrast to the Little River specimens. They are closely related to Meillac in Haiti and Baní in Cuba. Rouse's concept of the Arawak as a sea-oriented people, easily communicating between opposing coastlines of adjacent islands, is well illustrated here.

Further survey and stratigraphical data are urgently needed in Jamaica.

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