ARCHAEOLOGICAL CHRONOLOGY OF GRENADA

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ABSTRACT

Survey and tests in Grenada indicate three major ceramic periods. The first, A.D. 0–700, is a typical Caribbean extension of the Saladoid-Barrancoid tradition of Venezuela. The second is represented by burnished, red-painted pottery with rim points and horns associated with black-and-red-painted cazuelas. A thick, crude ware which frequently exhibits deeply scratched surfaces characterizes the third. A late phase with finger-indented rims is associated with historic materials. These ceramic traditions are correlated with the pre-Arawak, Arawak, and Carib Indians.

GRENADA, as the southernmost landfall of the Antilles, should contain a record of people and ideas that entered the West Indies from South America. In the fall of 1962, supported by a grant from the American Philosophical Society, I was able to make a partial survey of the island with stratigraphic tests in five sites (Bullen 1964a). Over 32,000 sherds were collected and studied. Sherds from these tests were sent to the Florida State Museum where they were analyzed and a typology developed.

On the basis of temper and surface treatment, seven ceramic series were defined, each of which contained a number of pottery types. Of these, the shell-tempered Airport and the fine, sand-tempered Westerhall series appear to be of minor importance and will not be referred to further. One important type, Savanne Plain (Fig. 1 *e*, *f*), which is tempered with large, rounded, and angular quartz particles and presents characteristics of both Indian and European ceramics, was also named. Definitions of the various pottery types will be found in a report on this work (Bullen 1964b). Here only generalized descriptive terms will be used.

Based on stratigraphy, percentage shifts with depth, seriation, and associations on the ground, the five major pottery series have been arranged into three periods: Pearls, Caliviny, and Suazey, Of these, the Pearls period has three and the Suazey period two phases.

The Pearls series is tempered with fine sand and grit. It is a thin, well-made ware which has a very smooth (probably washed) surface. Decoration includes fine crosshatched and inner-rim incision, ovoid side lugs, button-shaped modeled-incised rim lugs, rim adornos, and side handles, similarly decorated horizontal rod and vertical strap handles, and red, white-on-red, and polychrome painting (Fig. 1 *r-z*, *bb-jj*).

The Simon series, which is thicker and medium-coarse grit-tempered, has good but poorer surfaces. Its decoration is the same as that of the Pearls series, except that multiple wide-line incision is limited to Simon paste and crosshatching, and inner-rim incision to Pearls paste.

Saline paste is coarsely and abundantly grit-tempered and exhibits surfaces like that of coarse sandpaper. Decoration is limited to red painting and somewhat baroque modeling on strap handles that extend well above vessel rims (Fig. 1 *aa*), incision on very heavy and wide flanges, and simple rim modifications that are more typical of the succeeding Caliviny period.

The Pearls-Simon-Saline series form a continuum during which pottery gets progressively poorer. This continuum and its decoration is similar to that of the Saladoid-Barrancoid tradition of Venezuela, although some elements may be present which are not included in that tradition. The Saline series, with its depleted ceramic inventory, may be transitional to the next or Caliviny period.

The Caliviny series, tempered with medium-sized grit, is noted for a surface finish that is achieved by burnishing without properly scraping and finishing the surfaces before burnishing (Fig.1 *i*). Boat-shaped vessels with rim points or small human-head representations for handles, as well as vessels with simple rim modifications (horns that are either plain or pierced, flat lugs, concave earlike modifications, and wide scallops) are practically always covered with red paint (Fig. 1 *m-q*). Also in this series are thick-walled cazuela vessels with red-painted bodies and above the shoulders repeated geometric designs in black and red paint applied on a buff surface (Fig. 1 *j*, *k*). Other features include painted plates and handles in the form of human heads with appliquéd features and backward-bent faces (Fig. 1 *l*).

Sherds of the last or Suazey series form the "worst" pottery in the Lesser Antilles. This is a coarse, grit-tempered ware with very rough, uneven surfaces that are often deeply scratched (Fig. 1 *a*, *b*). Plain, flat-bottomed caldrons and simple rim modifications like those of the Caliviny series are known. In the last or his-

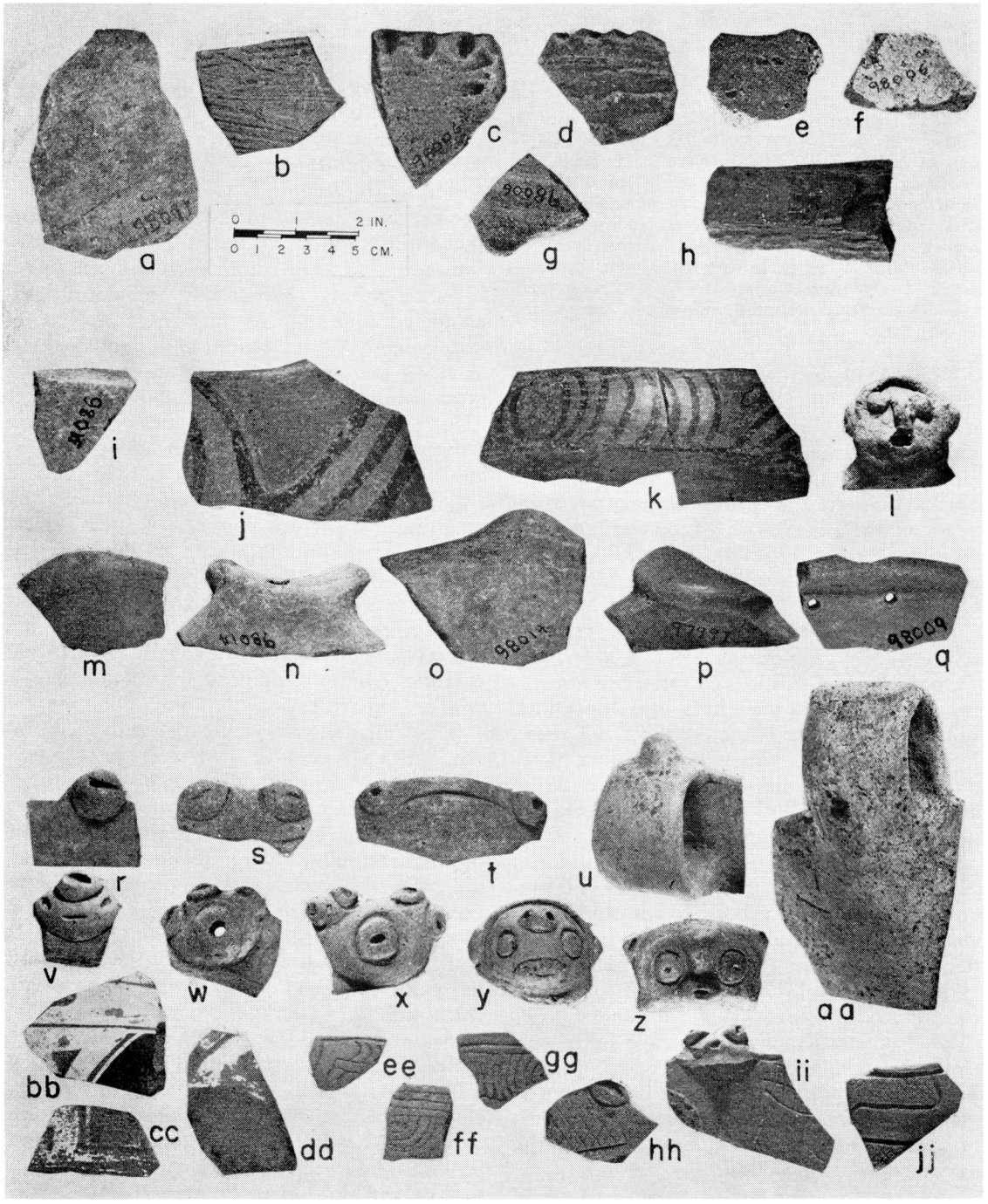

Fig. 1. Sherds from Grenada. Late: *a*, Suazey Plain; *b*, Suazey Scratched; *c–d*, Suazey Finger Indented; *e–f*, Savanne Plain; *g*, Spanish olive jar; *h*, iron. Middle: *i*, Caliviny Plain; *j–k*, Caliviny Polychrome; *l*, Caliviny Adorned; *m–q*, Caliviny Rim Modified. Early: *r–t*, Pearls Rim Lugged; *u*, Simon Wide Handled; *v–z*, Pearls Rim Adorned; *aa*, Saline Wide Handled; *bb–cc*, Pearls White Painted; *ee–gg*, Pearls Inner Rim Incised; *hh–jj*, Pearls Cross Hatched.

toric phase occur finger-indented rims and Savanne Plain sherds (Fig. 1 *c–f*).

The earliest phase of the Pearls period was represented at Black Point Beach. Here, 18 in. below the surface of the beach, we found sherds of the Pearls series exhibiting fine-line, cross-hatched incision, simple bar-and-button rim lugs, red-painted everted lips, and white-painted exteriors mixed with fragments of griddles and of a somewhat thicker plain ware (Simon Plain). Work at Black Point Beach was limited, and further work at this site is planned.

The large Pearls site, which is near the airport, supplied data regarding the Pearls period proper. Here our tests uncovered all types of the Pearls and Simon series. Pearls series sherds, especially crosshatched and white-on-red painted sherds, were more common at greater depths and the coarser Simon series sherds were more common nearer the top. A few Caliviny and Sauzey series sherds were mixed in the higher zones, probably by recent cultivation.

The closing phase of the Pearls period was revealed in a test at the Salt Pond site. Here crosshatched, white-painted, and rim-lugged (button-shaped) sherds were limited to lower levels, while in upper levels the coarse Saline paste almost superseded the Simon and the Pearls series. Typical of the upper levels were large, heavy flanges — frequently incised — and a few rim horns and lugs of a new type that is relatively common in the Caliviny period.

Our tests did not penetrate any pure deposits of the Caliviny period, but it is believed that such deposits will be found. This statement is based upon the large amount of Caliviny ceramics in the Wilcox collection from a portion of the Westerhall Point site not tested by us, upon the implications of percentage shifts, and upon the fact that Ostiones and Santa Elena styles of Puerto Rico (Rouse 1952: Pls. 3, 4) and the Magens Bay, Turtle Point, and Francis Bay sites of St. Thomas and St. John's islands (Bullen 1963: Pls. III–VII, XI, XII), which lack pottery like that of the Pearls or Suazey series, have a ceramic inventory very similar to that of the Caliviny series.

At both the Caliviny Island and Westerhall Point sites we found sherds of the intermediate Caliviny period mixed with those of the last or Suazey period. The site on Caliviny Island seemed to be homogeneous, but at Westerhall Point the percentage of Suazey Scratched (Fig. 1 *b*) decreased while that of Caliviny Plain (Fig. 1 *i*) increased with depth. These percentages are 34.7, 28.2, 22.3, 10.2 and 7.5, 18.5, 20.5, 33.6, respectively, for the four zones. This is good evidence of the replacement of Caliviny ceramics by those of the Suazey series. This is to be expected if Caribs took over the Lesser Antilles from Arawaks as postulated here.

At the Savanne Suazey site this replacement was virtually complete. At this site there were two separate occupational areas, a northern and a southern one. In the northern area, the Suazey series comprised 83%, the Caliviny series 12%, and the Simon series 4% of the sherd sample. This is very different from the Caliviny Island and Westerhall Point sites, at which the Suazey series supplied 44% and 47%, respectively, of the sherds excavated. In this northern area, due to lack of depth, the collection may be treated as if it came from the surface.

In the southern area the situation was different. Here, there was a little depth and, while the percentages of Suazey and Caliviny sherds were 87% and 12%, respectively, there was a tendency for sherds of the Caliviny series to be found more often in the second than in the first level. Caliviny Polychrome, although rare in both areas, was relatively deep when present.

Of more importance in the southern area was the presence of finger-indented rims, many fragments of iron, three Spanish olive jar sherds, and 82 sherds of Savanne Plain (Fig. 1 *c-h*). All four traits were absent from the northern area, and the last three are post-Columbian in date. Presumably the Suazey sherds with finger-indented rims are also historic in date. As this site is in the Cabesterre part of Grenada, where Caribs are known to have lived as late as 1705 (Knight 1946: 22), I believe we can correlate the Suazey series with historic Carib occupation when finger-indented rims are present.

I am not the first to propose a correlation between crude pottery with finger-indented rims and the Caribs. McKusick (Jesse 1960: 16) has noted the similarity in the finger-indented rims of his Fannis style (the St. Lucia equivalent of my Suazey series) and the notched-rim pottery still being made today by the modern descendants of Caribs at Point Caraibe on St. Lucia. The data from Savanne Suazey substantially increase the probability of this proposition.

I would correlate the plain, scratched, and finger-indented rim sherds of the Suazey series with the historic Carib and the same complex with red paint but without finger-indented rims

with the prehistoric Carib. I would consider the makers of the Caliviny series or of similarly modeled, burnished, and red-painted pottery in the Antilles to be Arawaks. The bearers of the Pearls or Caribbean Saladoid-Barrancoid ceramics I would refer to as pre-Arawak. The distributions in time and space of these three classes of pottery in the West Indies support the correlations suggested.

Pearls or Caribbean Saladoid-Barrancoid ceramics are found on the northeastern coast of Venezuela, on Trinidad and Tobago, throughout the Lesser Antilles, in the Virgin Islands, and Puerto Rico, but not farther west. Numerous radiocarbon dates place the dispersal of this tradition into the Antilles at about the time of Christ and the close of this period as around A.D. 700 (Rouse 1963). Because of this terminal date, because this tradition is not found in Jamaica, Cuba, and western Hispaniola where Arawaks lived, and because this tradition was superseded throughout the Lesser Antilles by another ceramic tradition, I propose the generalized term "pre-Arawak" for the bearers of this culture. The term "Caribbean Saladoid-Barrancoid people" might be more specific, but I feel that "pre-Arawak" has certain useful connotations in the Antilles.

Burnished pottery and over-all red-painted pottery with forms (including boat-shaped vessels) and rim modifications like those of the Caliviny series are common in Grenada, St. Lucia (McKusick 1959), Guadeloupe (Florida State Museum Collections), Antigua (Olsen Collection), the Virgin Islands (Bullen 1963: Pls. III–VII), and Puerto Rico (Rouse 1952: Pls. 3, 4). However, incision seems to have replaced black-and-red paint on the upper parts of cazuela vessels. Farther west in the Greater Antilles traces of this tradition are readily discernible (Rouse 1941: Pls. 14, 15, 21, 22; Robert R. Howard, personal communication), although in late times pottery became "overdecorated" and published illustrations tend to include only the more extravagant ceramic products. This distribution agrees with the known distribution of the Arawak Indians.

Historically, Caribs occupied the Lesser Antilles and were raiding eastern Puerto Rico and the Virgin Islands at the time of discovery by Europeans. An intensive survey of St. John and St. Thomas islands (Bullen 1963) and examination of collections from St. Croix in the Christiansted Museum did not produce any pottery of the Suazey series. Suazey Scratched is known as far north as Sint Maarten, where I found a few sherds of this type in the highest level of the Cupecoy Bay site (Florida State Muesum Collection). Hoffman (1963: 105) found scratched pottery and a few sherds with finger-indented rims at Mill Reef on Antigua. The known distribution of the Suazey series seems to agree well with the known distribution of the Carib Indians in the Antilles.

If we look to the south for possible origins of the Suazey series, we find that scratched pottery and finger-indented rims are apparently rather rare in Venezuela. Cruxent and Rouse (1958) list no scratched pottery (and only a few indented rim sherds) from Venezuela, and Bullbrook (personal communication) informs me that it has not been found on Trinidad. However, John Llanos of Trinidad (personal communication) says that he has found such pottery at one or two sites along the southern part of that island. Scratched pottery has also been found in Tobago by Mrs. Gloria Gilchrist at the Lovers Retreat site, where it was found stratigraphically above pottery which resembled that found at Palo Seco. These data suggest that the source of scratched pottery may be farther south in the delta of the Orinoco or in the Guianas. Such an origin would agree with the Carib tradition that they came from Surinam.

Sites of the pre-Arawak Indians on Grenada — Pearls, La Filette, Simon Beach, and St. Johns River — are all on or near good agricultural land, frequently only a short distance from the ocean. A relatively small amount of shell refuse is found at these sites, which suggests that the economy was based primarily on agriculture. Grinding stones and griddle fragments at the Pearls site suggest that both corn and manioc were grown. This correlation between agricultural land, scarcity of shells, distance from the ocean, and pre-Arawak pottery was found on the island of St. John (Bullen 1963: 69) as well as on Grenada. I suspect that it will be found elsewhere in the Lesser Antilles.

Arawak sites on Grenada, in the Virgin Islands, and also on Sint Maarten and Antigua, are usually near shellfish-producing waters and contain more shell refuse than do those of the pre-Arawaks. Arawak sites occur where manioc could be grown but usually not inland near good agricultural land suitable for corn. This swing away from agriculture may reflect degeneration in the climate or lack of interest in agri-

culture on the part of the invading Arawaks. If this middle ceramic period evolved in place, as Rouse (1964) seems to feel, deterioration in climate is the better explanation.

After this paper was presented, I discussed with Reid A. Bryson (Department of Meteorology, University of Wisconsin) the question of climatic deterioration. He said that during the eighth century there was a great increase in the number of hurricanes in the Caribbean. He pointed out that excessive rainfall would severely damage corn but would have little effect on manioc.

Carib pottery is found in the same places as that of the earlier Arawaks. Carib pottery is also found on high headlands; such locations are also supported by data in Breton's dictionary (Petitjean-Roget 1963: 55). Carib economy — based on sea food and manioc — was similar to that of the Arawaks, but their orientation to the sea seems even greater.

We thus have four successive pre-Columbian cultural groups in the West Indies: (1) the preceramic Ciboney known chiefly from the Greater Antilles; (2) the pre-Arawak agriculturalists with a Saladoid-Barrancoid ceramic tradition; (3) the Arawaks who in the Lesser Antilles had an economy based on shellfish and manioc and who finished their pottery by burnishing; and (4) the Caribs, who introduced scratched-surface, flat-based vessels, and were even more oriented toward the sea than the Arawaks. The last three, if not also the first, entered the West Indies by way of Grenada.

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