SMITHSONIAN INSTITUTION
Bureau of American Ethnology
Bulletin 191

Anthropological Papers, No. 73

THE ARCHEOLOGY OF TABOGA, URABÁ, AND TABOGUILLA ISLANDS, PANAMA

By MATTHEW W. AND MARION STIRLING

285
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>291</td>
</tr>
<tr>
<td>Introduction</td>
<td>293</td>
</tr>
<tr>
<td>Taboga Island</td>
<td>293</td>
</tr>
<tr>
<td>Taboga-1</td>
<td>296</td>
</tr>
<tr>
<td>Stone, bone, and shell</td>
<td>297</td>
</tr>
<tr>
<td>Ceramics</td>
<td>299</td>
</tr>
<tr>
<td>Pottery wares</td>
<td>306</td>
</tr>
<tr>
<td>Taboga-2</td>
<td>307</td>
</tr>
<tr>
<td>Taboga-3</td>
<td>307</td>
</tr>
<tr>
<td>Taboga-4</td>
<td>308</td>
</tr>
<tr>
<td>Taboga-5</td>
<td>310</td>
</tr>
<tr>
<td>Urabá Island</td>
<td>310</td>
</tr>
<tr>
<td>Taboguilla Island</td>
<td>312</td>
</tr>
<tr>
<td>Taboguilla-1 and Taboguilla-2</td>
<td>313</td>
</tr>
<tr>
<td>Ceramics</td>
<td>313</td>
</tr>
<tr>
<td>Painted wares</td>
<td>316</td>
</tr>
<tr>
<td>Incising</td>
<td>317</td>
</tr>
<tr>
<td>Indented</td>
<td>324</td>
</tr>
<tr>
<td>Applique</td>
<td>326</td>
</tr>
<tr>
<td>Handles</td>
<td>327</td>
</tr>
<tr>
<td>Pedestal bases</td>
<td>327</td>
</tr>
<tr>
<td>Tripods</td>
<td>327</td>
</tr>
<tr>
<td>Stone and shell</td>
<td>327</td>
</tr>
<tr>
<td>Taboguilla-3</td>
<td>336</td>
</tr>
<tr>
<td>References cited</td>
<td>336</td>
</tr>
<tr>
<td>Explanation of plates</td>
<td>337</td>
</tr>
</tbody>
</table>

## ILLUSTRATIONS

### PLATES

(All plates follow page 348)

45. Rim sherds from large vessels; Taboga-1.
46. Miscellaneous sherds; Taboga-1.
47. Painted sherds; Taboga-1.
48. Various zoned designs; Taboga-1.
49. Miscellaneous sherds; Taboga-1.
50. Pedestal and ring bases; Taboga-1.
51. Taboga stonework.
52. Taboga and Taboguilla stone and shell.
53. Miscellaneous sherds; Taboga-4.
54. Rim sherds; Taboga-4.
55. Urabá urns.
56. Urabá urns.
PLATES—Continued

57. Sites on Urabá and Taboguilla Islands.
58. Bold incising; Taboguilla-1.
59. Combing and incising; Taboguilla-1.
60. Incised ware; Taboguilla-1.
61. Various rim decorations; Taboguilla-1.
62. Narrow line combing; Taboguilla-1.
63. Combed ware; Taboguilla-1.
64. Fragments of globular bowls decorated with combed designs; Taboguilla-1.
65. Multiple line combing; Taboguilla-1.
66. Scallop impressions; Taboguilla-1.
67. Filleting on combed surface; Taboguilla-1.
68. Filleted ware; Taboguilla-1.
69. Subglobular bowls with scallop indented filleting; Taboguilla-1.
70. Collanders; Taboguilla-1.
71. Sherds with bossed decorations; Taboguilla-1.
72. Broad flat rims of subglobular bowls; Taboguilla-1.
73. Subglobular bowls with strap handles; Taboguilla-1.
74. Rim sherds of flat shallow plates; Taboguilla-1.
75. Interior of rim sherds shown on plate 74.
76. Micellaneous painted sherds; Taboguilla-1.
77. Black-on-orange-and-black outlined with white-on-orange; Taboguilla-1.
78. Black-and-white-on-orange pedestal base bowl sherds; Taboguilla-1.
79. Reverse of plate 78.
80. Pedestal base bowl sherds.
81. Sherds from black-and-white-on-orange pedestal base bowls; Taboguilla-1.
82. Miscellaneous black-on-white-and-orange sherds; Taboguilla-1.
83. Miscellaneous painted sherds; Taboguilla-1.
84. Miscellaneous sherds; Taboguilla-3 rock shelter.
85. Filleted and scallop impressed ware; Taboguilla-2.
86. Miscellaneous sherds; Taboguilla-2.
87. Miscellaneous sherds; Taboguilla-2.
88. Miscellaneous sherds; Taboguilla-1.
89. Miscellaneous sherds; Taboguilla-1.
90. Taboguilla-3; rock shelter site on Taboguilla.

TEXT FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Rim profiles; Taboga-1</td>
<td>300</td>
</tr>
<tr>
<td>26</td>
<td>Rim profiles; Taboga-1</td>
<td>301</td>
</tr>
<tr>
<td>27</td>
<td>Rim profiles of red painted ware; Taboga-1</td>
<td>302</td>
</tr>
<tr>
<td>28</td>
<td>Rim profiles from large vessels; Taboga-1</td>
<td>303</td>
</tr>
<tr>
<td>29</td>
<td>Rim profiles; Taboga-1</td>
<td>304</td>
</tr>
<tr>
<td>30</td>
<td>Rim profiles; Taboga-1</td>
<td>305</td>
</tr>
<tr>
<td>31</td>
<td>Rim profiles; Taboga-3</td>
<td>309</td>
</tr>
<tr>
<td>32</td>
<td>Small pots with miniature saucers from Urabá</td>
<td>311</td>
</tr>
<tr>
<td>33</td>
<td>Taboguilla rim profiles</td>
<td>313</td>
</tr>
<tr>
<td>34</td>
<td>Taboguilla rim profiles</td>
<td>314</td>
</tr>
<tr>
<td>35</td>
<td>Restored Taboguilla buff ware jar</td>
<td>315</td>
</tr>
<tr>
<td>36</td>
<td>Restored Taboguilla buff ware jar</td>
<td>316</td>
</tr>
<tr>
<td>37</td>
<td>Restored Taboguilla ceramic bowl</td>
<td>317</td>
</tr>
</tbody>
</table>
TEXT FIGURES—Continued

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.</td>
<td>Interior of (figure 37)</td>
<td>318</td>
</tr>
<tr>
<td>39.</td>
<td>Restored Taboguilla orange-and-white bowl</td>
<td>319</td>
</tr>
<tr>
<td>40.</td>
<td>Restored Taboguilla incised jar</td>
<td>319</td>
</tr>
<tr>
<td>41.</td>
<td>Restored Taboguilla incised jar</td>
<td>320</td>
</tr>
<tr>
<td>42.</td>
<td>Restored Taboguilla incised jar</td>
<td>321</td>
</tr>
<tr>
<td>43.</td>
<td>Restored Taboguilla incised jar</td>
<td>322</td>
</tr>
<tr>
<td>44.</td>
<td>Taboguilla incised sherds</td>
<td>323</td>
</tr>
<tr>
<td>45.</td>
<td>Restored Taboguilla buff ware jar with scallop indented filleting</td>
<td>324</td>
</tr>
<tr>
<td>46.</td>
<td>Restored Taboguilla buff ware jar with scallop indented filleting</td>
<td>325</td>
</tr>
<tr>
<td>47.</td>
<td>Restored Taboguilla incised jar with applique crescents</td>
<td>326</td>
</tr>
<tr>
<td>48.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>328</td>
</tr>
<tr>
<td>49.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>329</td>
</tr>
<tr>
<td>50.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>330</td>
</tr>
<tr>
<td>51.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>331</td>
</tr>
<tr>
<td>52.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>332</td>
</tr>
<tr>
<td>53.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>333</td>
</tr>
<tr>
<td>54.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>334</td>
</tr>
<tr>
<td>55.</td>
<td>Restored Taboguilla pedestal base bowl</td>
<td>335</td>
</tr>
</tbody>
</table>
PREFACE

The archeological investigations on Taboga, Urabá, and Taboguilla Islands were conducted in March and April of 1953 as part of the archeological program in Panama under the auspices of the Smithsonian Institution and the National Geographic Society.

Accompanying the expedition as photographer, and assisting generally in the work throughout the entire sequence of expeditions to Panama, was Richard H. Stewart, assistant chief of the Photographic Laboratory of the National Geographic Society.

We are indebted to a number of friends both in the Republic of Panama and the Canal Zone for making our work easier and more efficient. Mr. Karl Curtis, longtime resident of the Canal Zone, gave unstintingly of his time and knowledge of Panamanian archeological sites. Mr. and Mrs. Paul A. Bentz kindly allowed us to use the large basement of their home in Balboa for the storage of our specimens and as a work laboratory. Above all, we are obligated to Dr. Alejandro Méndez, director of the Museo Nacional de Panamá, for his cordial cooperation and assistance during all of our archeological investigations in Panama. Others, too numerous to mention, gave us assistance in many ways and contributed to making our stay in Panama a very pleasant one.

We are grateful to Mr. Edward G. Schumacher, artist for the Bureau of American Ethnology, for the line drawings in this report.
THE ARCHEOLOGY OF TABOGA, URABÁ, AND TABOGUILLA ISLANDS, PANAMA

BY MATTHEW W. AND MARION STIRLING

INTRODUCTION

The islands of Taboga, Urabá, and Taboguilla lie in the Gulf of Panama some 12 miles from the Pacific entrance to the Panama Canal. All three are relatively steep mountain peaks which project above the waters of the gulf and, as a consequence, there is a minimum of level ground on them. Urabá and Taboguilla lack fresh water during the dry season, and as a result have at the present time no permanent inhabitants. Urabá is small and rocky and has very little cultivable ground. Taboguilla is larger and has a considerable area suitable for cultivation and some springs which furnish enough water for drinking purposes for all but 2 months of the year. At the present time there are three or four small houses on Taboguilla which are occupied temporarily by families from Taboga who have plantations on the island.

TABOGA ISLAND

Taboga, about 2 miles in length and 1 mile in width, is the largest of the three islands and the only one with permanent habitations. There is an ample supply of water and a small but good harbor with good anchorage. It is a very attractive place and now is famed as a pleasure resort.

The area of the Bay of Panama extending from Taboga to the Pearl Islands is one of the world’s finest fishing grounds, a fact no doubt exploited by the aboriginal inhabitants. In fact, the name “Panama” refers to the abundance of fish. Fishing now is the principal industry of Taboga as it probably was in pre-Columbian times. Judging from the nature of the archeological sites, the aborigines made considerable use of the shellfish which occur in abundance and considerable variety. The principal species used was Aequipecten circularis Sowerby, which constitutes probably one-half of the total shell content of the midden deposits.
Because of the lack of suitable anchorages along the mainland of the Isthmus, and because good water was not readily available there, Taboga early became a key point for the trans-Isthmian traffic. Balboa scarcely had reached the Pacific before Taboga began a colorful history matched by few spots of equal size in the New World.

The principal stream of water on Taboga flows through the only relatively level area on the island, that lying immediately back of the cove and beach. The present village occupies this area on both sides of the stream, the houses being built about as close together as possible. Since this is the only logical living site on the island, it was here also that the principal aboriginal settlement was located. Under the present village lie the remains of the old colonial Spanish town, and below that the midden deposits of the Indians. A cross section of this deposit is exposed where the ramp from the beach ascends to the first narrow street on the village level. The church appears to be built over approximately the middle of the Indian village site. While this site would be naturally the most productive location for archeological research, it is impracticable to dig in it because of the buildings which cover it. At the present time the surface of the ground under and around the houses is littered with a mixture of Spanish and Indian sherds.

Information concerning the Indians inhabiting Taboga at the time of the Conquest is almost nonexistent. Because of the early settlement of the island by the Spaniards and its limited area, it is probable that the bulk of the natives were killed or driven away early in the 16th century.

After raiding Parita and the Azuero Peninsula in 1515, Badajoz and his surviving followers fled to Chámé and thence to Taboga Island, being the first Europeans to land there. After nursing their wounds for several weeks in the security of the island, they returned to the mainland. Beyond the fact that the island received its name from Taboga, the chief who resided there, and that the Spaniards obtained 22,000 pesos of gold from the natives, we learn nothing from the early chronicles. It is probably safe to assume, however, that Badajoz obtained the gold by force and that his visit virtually brought to an end the aboriginal occupation of the island.

In 1519 Pedrarias, then Governor of Panama, after taking possession of the south coast, brought his force of 400 men to Taboga, from whence he established the old City of Panama. It is to be presumed that the Spaniards already had a settlement on the island, for in November of 1524 Pizarro sailed from Taboga on his epoch-making voyage of discovery which led to the conquest of Peru.

In 1545, Pedro de Hinojosa, dispatched by Pizarro to capture Panama and place it under his control, outfitted and repaired his ships
at Taboga from whence he conducted his negotiations with the governing officials on the mainland. During all of this time there is no mention of Indians on the island.

In 1575 Dr. Alonso Criado de Castilla stated that "Five leagues from the City of Panama was the island of Otoque, and three leagues from Panama was the island of Taboga; both tilled and cultivated by some inhabitants of Panama who planted and harvested corn." This would seem to indicate that the aboriginal population had been replaced in the main by mestizos and Spaniards.

In 1610, in reply to queries sent out by the Spanish Crown, the following item is of interest:

The districts about Panama formerly had many pueblos of Indians, but only three remained. That of Chepo was eight leagues to the east . . . . Chepo had 40 Indian inhabitants, ruled by their own governor, constable, and two mandadores.

On Isla del Rey [in the Pearl Islands] to the east, 18 leagues from Panama and 6 leagues from Tierra Firma was another pueblo which usually contained 500 Indians but then only 12. The third village of natives was on Isla Taboya [Taboga] 4 leagues south of the City with but 12 inhabitants, who were very poor like those of del Rey. None of these Indians paid tribute, and all spoke the Spanish language, having entirely forgotten their own. [Anderson, 1938, p. 281.]

Reference to this pathetic remnant is the last contemporary mention of the Taboga natives. It is certain that the Indians had no part in the hectic events that took place on and about Taboga during the next two centuries when it was a key point in the activities of the buccaneers and other freebooters who roamed the South Sea and repeatedly burned and sacked the town, which was always promptly rebuilt on the same spot beside the clear stream which here flows into the cove.

In 1671, when Morgan sacked Old Panama, the Spanish refugees fled by boat to Taboga and Taboguilla. It was not long after this that Captain Searles was sent to capture the Spanish treasure ship _Trinity_; he captured it at Taboga. The ship was poorly equipped for defense, but Taboga was stored with "several sorts of rich wines" with which Searles' men "plentifully debauched themselves." By the time they had sobered up, the _Trinity_ had escaped.

Even as late as 1819 Captain Illingsworth and his group of Chileans landed on Taboga, where they looted and burned the village.

A number of early descriptions of the island have been left us by the more literate of the buccaneers. That of Capt. William Dampier, written in 1685, would serve very well to describe the Island today:

The 24th day we run over to the Island Tabago. Tabago is in the Bay, and about 6 Leagues South of Panama. It is about 3 mile long, and 2 broad, a high mountainous Island. On the north side it declines with a gentle descent to the Sea. The Land by the Sea is of a black Mold and deep; but towards the top of the Mountain it is strong and dry. The North side of this Island makes a
very pleasant shew, it seems to be a Garden of Fruit inclosed with many high
trees; the chiefest Fruits are Plantains and Bonano's. They thrive very well
from the foot to the middle of it; but those near the top are but small, as wanting
moisture. Close by the Sea there are many Coco-Nut-Trees, which make a
very pleasant sight. Within the Coco-Nut-Trees there grow many Mammet
(Mamé) Trees . . . . The S.W. end of the Island hath never been cleared, but
is full of Firewood, and Trees of divers sorts. There is a very fine small Brook
of fresh Water, that springs out of the side of the Mountain, and gliding through
the Grove of Fruit trees, falls into the Sea on the North side. There was a small
Town standing by the Sea, with a Church at one end, but now the biggest part
of it is destroyed by the Privateers. The buccaneers under Sawkins lay here
from May 2–15, 1680.[1] There is good anchoring right against the Town, about
a mile from the shoar, where you may have 16 or 18 fathom Water, soft oazy
ground. There is a small Island close by the N.W. end of this called Tabogilla
[actually Urabá], with a small Channel to pass between. There is another
woody Island about a mile on the N.E. side of Tabago, and a good Channel
between them: this Island [Taboguilla] hath no Name that ever I heard.
[Dampier, 1717.]

It is clear from the rather abundant literature concerning Taboga,
that from earliest times, together with Taboguilla and Otoque, it
was the vegetable garden and fruit orchard first for Old Panama,
and later to a lesser extent for the modern city.

It is interesting to note the apparent changes over the centuries
in the character of the crops raised. In 1575, the principal crop was
corn. In 1685 Dampier states that the chief crop was plantains and
bananas, but also mentions coconuts and mames. At the present
time the principal crops are pineapples and papayas, which are grown
in clearings on the steep hillsides. The pineapples of Taboga are
famous for their quality, and it is local tradition that the original
plantings for the Hawaiian Islands came from here.

The aboriginal occupants of Taboga were probably moderately
prosperous, since Badajoz looted them of a fairly substantial quantity
of gold. A few years ago, our workmen told us, a gold "Corona,"
a plain band of gold about 1 inch in width, to be worn around the
head, was washed out of the bank of the creek. The finders divided
it equally among themselves by breaking it into three parts. Lothrop illustrates several gold specimens said to have come from
Taboga.

With the aid of natives we were able to locate several midden
sites other than that underlying the village.

TABOGA-1

Near the northeastern extremity of Taboga is a small cove, back
of which is located the station from which is operated a radar installation
on the summit of the island. Above the station, at an elevation

[1] "While we were here," says Ringrose (1684), "some of our men being drunk on shore, happened to set
fire unto one of the Houses, the which consumed twelve houses more before any could get ashore to
quench it."
of about 350 feet, the ground levels off somewhat at a point where an ephemeral stream runs during the wet season. On this area grow a number of mango and lime trees and a few coconut palms.

Taboga–1 is a midden deposit consisting of a mixture of shells and black earth and covering an area approximately 100 feet in diameter on the south slope of a shallow dry ravine. About 6 inches of black soil covered the midden deposit. Under this the shell layer decreased in depth from 36 inches at the north, or lower, end to 24 inches at the south end. Under the shell the natural base was a very hard packed mixture of rough rocks and clayey soil. We dug a test trench into this base to a depth of 2 feet without finding any artifacts. Trench 1 was laid out 20 feet × 20 feet and excavated in four sections each 5 feet × 20 feet in dimension. The material was removed in 1-foot layers 0–12 inches, 12–24 inches, and 24–36 inches.

STONE, BONE, AND SHELL

Although potsherds were fairly abundant through the deposit and stone artifacts were moderately common, there were no artifacts of shell or bone. Shells were abundant and in considerable variety, 33 species being collected. It is interesting to note that the specimens from the midden average a considerably larger size than the same species living in these waters today.

The following were found in Taboga 1: 2

Gastropoda

\begin{itemize}
  \item Tegula (Tegula) pellis-serpentis Wood
  \item Nerita (Ritena) scabricosta Lamarck
  \item Cypraea (Macrocypraea cervinetta) Kiener
  \item Planaxis planicostatus Sowerby
  \item Strombus peruvianus Swainson
  \item Strombus gracilitor Sowerby
  \item Strombus granulatus Swainson
  \item Malea ringens Swainson
  \item Thais (Vasula) melones Duclos
  \item Muricanthus radix Gmelin
  \item Muricanthus nigritus Philippi
  \item Turbinella castanea Reeve
  \item Fasciolaria (Pleuroploca) princeps Sowerby
  \item Fasciolaria (Pleuroploca) salmo Wood
  \item Melongena patula Broderip and Sowerby
  \item Mitra (? Strigatella) belcheri Hinds
  \item Vasum caestus Broderip
  \item Terebra sp. (worn)
  \item Terebra (Striotrebrum) glauca Hinds
\end{itemize}

2 The identifications were made by Dr. R. Tucker Abbot. Nomenclature follows that of A. M. Keen (1958).
**BUREAU OF AMERICAN ETHNOLOGY**

**Pelecypoda**

*Codakia distinguenda* Tryon

*Arca pacifica* Sowerby

*Anadara (Larkinia) grandis* Broderip and Sowerby

*Anadara (Anadara) formosa* Sowerby

*Aequipecten (Plagiocentrum) circularis* Sowerby

*Lyropecten (Lyropecten) subnodosus* Sowerby

*Ostrea chilensis* Philippi

*Chama frondosa* Broderip

*Trachycardium (Trachycardium) consors* Sowerby

*Periglypta multistriata* Sowerby

*Chione (Chione) californiensis* Broderip

*Protothaca grata* Say

*Megapitaria aurantiaca* Sowerby

**Barnacle:** *Tetraclita squamosa panamensis* Pilsbry

Fish bones were present in some quantity, but were not as abundant as might have been expected. The most common shellfish was *Aequipecten circularis*, which constituted approximately one-half of the total number. No mammal or bird bones were recovered.

The most abundant stone artifacts consisted of round polishing stones, hammerstones and manos, or grinding stones, all adapted from naturally shaped beach stones. One broken metate leg was found in layer 0–12 inches. Three rather crude, blunt stone celts were found, two in layer 0–12 inches, one in 12–24 inches. The manos were of no standard shape, but generally short rather than long, and somewhat flat in cross section. The polishing stones and hammerstones varied in size from that of a golf ball to somewhat larger than a baseball. In the 12–24 inch level was an interesting graver made from a lamellar flake of yellow flint.

Since the concentration of midden material seemed to increase toward the northeast corner of trench 1 we laid out trench 2, 25×25 feet parallel to trench 1, and just to the northeast of it. Over a portion of this area was a stone rectangle, 19 feet square, which lay on the surface, possibly a house foundation. Some of the stones weighed from 200 to 300 pounds each.

In trench 2, the midden layer varied from 32 inches in thickness along the west wall to 24 inches on the east wall. We carried the excavation to an actual depth of 44 inches, finding the base material to be the same as in trench 1. We could find no traces of a floor or structure under the stone “foundation.”

In general, the contents of the midden were similar to those in trench 1, but stone objects were somewhat more abundant. In the 0–12 inch level we found two legless metates; one rectangular, the other oval. The latter had been worn so thin that a hole had formed in the bottom. In this level was also a small but well polished celt with a sharp cutting edge, a number of hammerstones and manos made from
beach stones, and a yellow flint arrowhead of the rough prismatic form characteristic of Veraguas and Cochlé sites (pls. 51, 52).

In the 12–24 inch level was another oval legless metate, and two peculiar well-made large polished stone "axes" of an oval shape. In this level there was also an interesting carved stone bird effigy 7.5 cm. long (pl. 51), and a second large prismatic flint arrowhead. Near this was a deposit consisting of several hundred unworked sharks' teeth.

CERAMICS

The potsherds were broken into relatively small fragments in both trenches, and not a single complete vessel was found. In trench 2 at a depth of 20 inches was a small red-painted subglobular jar, broken into many pieces but almost complete.

Typical pottery forms are globular and subglobular bowls with restricted orifices, hemispherical bowls, and olla shapes with out-flaring rims or collared necks. More elaborate vessels were pedestal and ring base bowls. Some of the pedestal bases are short and squat, others tall and slender.

The pedestal bowls were typically decorated with black and white designs on an orange base. The designs were sometimes on the exterior, sometimes on the interior of the bowls. Frequently, red paint alone was used on the interior, the exterior, or both. Often it was applied only to the lip or the neck of the vessel. Simple designs in black were sometimes put on the red base.

There were two types of red paint used; one a true dark red, the other an orange which varied in tone from yellowish to red. The two shades occasionally were applied on the same vessel to give a contrasting design.

Sometimes white or cream was used as a base, with designs in red or orange. In at least one instance the orange designs were outlined with narrow black lines.

Modeled designs were infrequent. Some subglobular bowls were decorated with curving, parallel, raised ridges impressed with scallop shells. These vessels had horizontal loop handles. Sherds from two plain red bowls of thin hard ware were decorated with rows of raised bosses. Incising was rather common and was usually in connection with zoned designs. Punctate decorations were almost invariably of the zoned variety.

Large ollas often were decorated with brushing or scallop combing, especially on the necks. The best idea of the pottery and decorative techniques can be obtained from the illustrations and plate descriptions.
Figure 25.—Rim profiles found at Taboga-1, Trench 1, 0"–24".
Figure 26.—Rim profiles found at Taboga–1, Trench 1, 12"–24".
Figure 27.—Rim profiles of red painted ware found at Taboga-1, Trench 2, 0"-12".
Figure 28.—Rim profiles from large vessels found at Taboga-1, Trench 2, 12”-24”.
Figure 29.—Rim profiles found at Taboga-1, Trench 2, 12'-24'.
Figure 30.—Rim profiles found at Taboga-1, Trench 2, 24”-36”.
Buff ware.—There are three primary types of ware at Tab–1. Unslipped buff ware is the most abundant. The majority of these vessels were more or less globular jars with short collars and outflaring rim with thickened lip. In 12 percent, the lips are painted red.

Using Munsell equivalents, the surface color varies from an orange cast 5YR 6/6, to a yellowish cast 10YR 7/6. Sometimes both of these variants can be found on the same pot as well as gray, orange, and brown firing clouds. Therefore the exact shade is not particularly significant. The exteriors of the pots generally are well smoothed. In some cases there are surface striations from dragging of temper particles during smoothing. The interiors are not as well finished. Some show narrow marks of a smoothing implement such as a pebble, or wider marks as from a gourd.

The surface is slightly rough to the touch, and sherds that have weathered are sandy and granular on the surface. It is probable that this ware was self-slipped.

Buff ware varies considerably in the color of the paste. It sometimes is fired with a gray core and buff margins of equal thickness. Sometimes the gray core is 95 percent, with narrow buff margins. Occasionally it is completely buff, evidently as the result of being fired more heavily. These variations hold for very thin as well as very thick ware.

Tempering material is granular with angular particles, medium to coarse in texture. In some instances temper is used moderately; in others, heavily. Flakes of white and red usually are mixed in.

The pottery does not break evenly; the fractures are rough and granular. Thickness in buff ware varies from 6 mm. to 23 mm.

Orange Slipped.—The shapes in general are the same as the buff ware, excepting that there were a few shallow bowls with outflaring rims.

The slip is moderate orange 5YR 5/6 with splotches of light brown 5YR 5/6.

The slipped surfaces often show fine parallel ridges, made by the polishing stone, which are rough where the slip has weathered away. Particles of mica glisten on the surface.

The orange-slipped surface is smooth but not slick. Unslipped interiors are often rough and granular. This slip seems to be more thinly applied than is the red slip.

The paste is a moderate orange in color varying to light brown. Frequently the rims, and sometimes the interiors, of this ware are painted red. When orange-slipped ware is painted red, the result is a much truer red than that seen on red-slipped ware, either because
it is a thicker application or, more probably, because it appears darker over the orange slip. It is a strong red, 5R 4/10.

Red Slipped.—Shapes were less restricted than with the other wares. In addition to the typical buff ware forms, there were globular jars with straight collars varying from 2 to 4 cm. in height. There was one bowl with a thickened, incurring rim.

The slip varies in color from moderate reddish orange, 10R 6/8 and 10R 4/10 to moderate reddish brown 10R 4/8, and dark reddish orange, 10R 5/8 or 5/6 and 7.5R 4/10.

The exterior is well smoothed and the red slip is polished and slick to the touch. Usually the slip contains mica. The interior is sometimes smooth, but often it is left rough with particles of the temper protruding from the paste.

Marks of the polishing implement are frequently visible on the surface, giving it a streaked, uneven luster.

The slip itself is moderately heavy and is crazed and abraded in many cases.

In color the paste is weak yellowish orange 10YR 7/6 to weak orange 5YR 6/6 and light brown 5YR 5/6. It generally is fired evenly. Red-slipped pottery which is decorated is finer tempered and breaks evenly.

The texture of this ware is generally medium to coarse with angular tempering material including mica. In some instances white quartz is abundant giving the fractures a “snowy” appearance. Red-slipped ware varies in thickness from 6 to 12 mm.

TABOGA-2

About 400 meters northwest of Taboga-1, and at a somewhat higher elevation, is another occupation site with a much thinner deposit of midden material. No excavations were made here, but a surface collection showed that the pottery is similar in most respects to that in Taboga-1.

There is one pedestal base bowl painted red on both the exterior and interior; another had black stripes on a red base on the exterior, while the interior is plain. The one unique sherd was a medium high collar rim with horizontal combing on the interior and vertical combing on the exterior. It was unpainted and had a flat lip. One body sherd was decorated with two notched raised horizontal lines.

Our conclusion was that the occupation was contemporary with Taboga-1.

TABOGA-3

On the north side of the main arroyo that flows through the village, and about 600 meters northwest of the last houses, is a rock shelter
cave at the base of a small cliff about 200 meters from the stream. It is about 16 meters across the mouth and 10 meters deep. It evidently had been used as an offertory, or burial place, but we found no bones in it. Although the earthen floor was about 1 meter in depth, the cultural material did not extend below 25 cm. Potsherds were abundant, but there were no shells or other evidence of midden material. The great majority of the sherds consisted of fragments of large ollas, some with smooth, some with combed, surfaces. The necks of the ollas frequently are decorated with horizontal combing or what may be cord impressions. A few body sherds had a red slip on the exterior and one had a row of bosses around the shoulder, made by pressing from the interior. A number of sherds were carbonized on the exterior from use on the fire. Some bottom sherds from large ollas were up to 4.5 cm. in thickness.

**TABOGA-4**

Approximately 400 meters west of the sandspit that joins Taboga with El Morro at the north end of the island, there is a small valley with a stream that flows only during the wet season. About 200 meters above the mouth of this stream, and approximately 50 meters above sea level on the north side of the slope, is a midden deposit about 40 cm. deep.

We excavated a trench in approximately the middle of this, 8 meters × 8 meters, saving all of the sherds. We were struck by the fact that the pottery differs considerably from that in Taboga-1.

Painted ware consists typically of red and black stripes on a buff or cream slip. Sometimes black stripes were on a red slip. Frequently either the entire interior or exterior, or both, were red slipped. The “red” color varies from orange to red. The more elaborately painted examples were bowl forms, frequently with flat beveled rims.

Larger vessels were olla forms of buff ware with outflaring rims or collared necks. The necks usually were decorated with rough combing, probably done with the edge of a scallop shell. Often these vessels had the lip painted red. Commonly the olla bodies were roughened by brushing.

Some of the more noticeable points of difference from Taboga-1 were the much larger percentage of combed or brushed ware, the lack of enlarged lips, and the apparent complete lack of incising.

Stone artifacts were rare. There was one crude celt of a bluish black stone, and quite a number of flint chips including one long lamellar flake.
Figure 31.—Rim profiles from Taboga-3.
On the precipitous south side of Taboga there is a cave located directly below the highest part of the island. It is about 5 or 6 meters above high water. There is no beach along this exposed part of the island. To visit the cave we landed from our boat on a rocky ledge and easily reached it by skirting the lower part of the cliff.

The cave slopes downward at about a 20° angle and the entrance is not high enough to stand up in. It seems to have been a high narrow cleft, the floor of which has been built up with bat dung and by material washed in from the hillside. It is quite dry.

In climbing up the short talus below the mouth of the cave we saw a number of potsherds. The cave is apparently quite deep and is inhabited by myriads of vampire bats. We did not have lights and therefore did not enter. It is quite probable that it contains offerings, judging from the potsherds on the talus.

**URABÁ ISLAND**

The rocky and precipitous islet of Urabá lies to the southeast of Taboga, from which it is separated by a narrow but deep channel. It has no permanent water and but little land suitable for cultivation. At the present time it is unpopulated.

Our Taboga Island guide told us that he knew of some rock shelters containing human bones and large pottery vessels in an area so rugged that it was practically never visited.

With an outboard motor we left Taboga, passed through the channel, and, following the south side of the islet, entered a deep hidden cove at the southeast corner. From this point we cut our way up a steep spur of the mountain and down to the north side. Here is an impressive cliff of massive basalt about 60 meters high. A broad shelf at the base of the cliff is covered with a pile of huge angular blocks of basalt fallen from the cliff. We climbed through and over this tangled mass of stone, some of the blocks as big as a small house. The rocks are overgrown with tropical trees and the whole area is a roost for hundreds of pelicans. Our guide asked us to wait while he located the site, and in 10 minutes he returned carrying a big olla. He brought us to a place where three gigantic blocks combined to form a rock shelter about 4 × 5 meters in area. Open in the middle, there is an overhang on both sides. Looking down we could see a dozen or more pottery ollas, mostly broken, but apparently disturbed only by nature since they had been placed there.

About 30 meters north of this main depository, we found another containing three pots. We photographed the offerings as they were, then, after cleaning out the accumulated rubbish, photographed them
again. All of the large ollas were broken to some extent and in many instances pieces had fallen into crevices, or been covered by small slabs of stone (pl. 57).

The largest number of pots had been placed in the north end, where they were somewhat exposed. Others had been placed far back under both the east and west overhangs. At the extreme rear of the east side there were fragments of human long bones, well chewed by rodents. It appeared that the bones belonged to a single individual.

Under the east overhang, which was a sort of two-story affair, more pots were placed well back on the main floor. On the rather narrow upper floor had been put two small jars. These latter had been so well protected that they were still in their original upright positions. They were intact, and each contained within it a rather

Figure 32.—Small pots with miniature saucers from Urabá.
crudely made saucer-shaped miniature vessel. As nearly as we could tell, there were 23 pots in all.

The entire collection filled six large potato sacks and it required three round trips for our two men to transport them to the boat. Two ollas were too large for the sacks and were carried separately.

Two of the ollas had traces of red paint and one small vessel had a simple geometric pattern in black painted on the interior. The pottery varies in color from light buff to brick red, and is very hard. Considering the size of the majority of the vessels, the tempering is not coarse. The wall thickness of the large ollas generally varies from 5 to 13 mm., but the bases on some are 26 mm. thick. Approximately one-half are decorated with rather haphazard combing, probably done with a scallop shell. The remainder are smooth and plain. The typical shape is that of a round-bottomed rather squat olla with outflaring rim. One large and one small vessel had a bevel around the widest part of the body. The small pots were made of the same type ware and were similar in shape excepting for the two saucer-shaped miniatures placed inside small vessels as described above.

The large ollas varied in height from 30 to 40 cm. The largest orifice measured 33 cm. across (pls. 55, 56).

It is evident that the pottery deposits were burial offerings, undoubtedly for bodies brought from Taboga. Bones apparently were not placed in the urns, which presumably contained food. It is probable that Urabá was uninhabited in prehistoric times but may have supported limited cultivation by the people of Taboga as it does today.

**TABOGUILLA ISLAND**

On Taboguilla Island we excavated three sites. Two of these are midden deposits on the west side of the island. Taboguilla-1 is located at an elevation of about 115 meters above the sand beach where, at the time of our visit, a few unoccupied shacks were located. Taboguilla-2 is at an elevation of about 100 meters almost directly below Taboguilla-1. Since the two deposits seemed to contain the same type of material, we excavated a test trench in Taboguilla-2 to check on this fact, and concentrated our efforts on Taboguilla-1, which was considerably larger and more productive. The refuse of Taboguilla-1, consisting of black earth mixed with shell, was somewhat more than 1 meter in depth. Potsherds were very abundant and in a good state of preservation. We conducted the excavations stratigraphically, but our statistics showed no change in the type or proportions of the ceramics. We concluded that the midden represented a single occupation over a not very considerable length of time.

Taboguilla-3 is a rock shelter about 200 meters south of Taboguilla-1.
TABOGUILLA-1 AND TABOGUILLA-2 CERAMICS

Considerable thought and time were put into a decision on the matter of color nomenclature. The problem is a common one in Panama: red vs. orange. Since frequently sherds from the same

Figure 33.—Rim profiles from Taboguilla-1.
Figure 34.—Rim profiles from Taboguilla–1.
vessel showed a considerable variation in shade (from reddish orange to yellow orange) we considered grouping all such colors under orange. However, definite oranges are found on interiors and exteriors of painted sherds and in several instances red was applied on orange as an intentional color contrast. We finally decided to retain the distinction of red, orange, and buff, giving Munsell equivalents with the realization that certain vessels show a considerable range in hue. The only true reds are probably either the black on red type or those instances where we have red on orange. Vessels showing a color range, for example, are (pl. 71, a, c, d), which vary from dark tones, Morocco Red (pl. 58) to Madder Brown (pl. 70), Brick Red (pl. 70), Kaiser Brown (pl. 71), and Hay’s Russet (pl. 71). The lighter tones are more common.

The oranges are Ferruginous (1 YR4.5/8), Vinaceous-Roufous (10R4.5/9) (pl. 71), and Ochraceous Tawny (yellow orange) (pl. 72).

The light buffs are Cartridge Buff (pl. 87), Cream Buff (pl. 87), and Light Buff (pl. 72).
The browns are from Brown-Bay to Burnt Sienna (pl. 59), Mars Orange and Liver Brown (pl. 71), and Sanford's Brown and Hay's Russet.

The only other colors used were black and white. All possible combinations of these three colors were used at one time or another. Although there is no inflexible rule, the different color combinations tend to correlate with particular vessel forms. A discussion of decorative techniques follows.

**PAINTED WARES**

*Trichrome.*—The majority of the trichrome vessels were pedestal base bowls.

(a) Black-on-white exterior, black-on-orange interior with the orange overlapping the lip. A variant of this has a plain orange interior.
Figure 37.—Restored Taboguilla shallow buff ware bowl.

(b) Black-on-white interior, orange exterior. A variant has a white-on-orange exterior.
(c) Black-on-orange interior and exterior with white on the base.
(d) Black, white and orange exterior, black-on-orange interior.
(e) Black, white and orange interior, orange exterior.
(f) Black-and-white-on-orange interior and exterior.
(g) Black-and-orange-on-buff. One collander had this decoration.

Bichrome.—These combinations usually were applied to high-necked globular vessels.

(a) Black-on-white exterior.
(b) Black-on-orange exterior.
(c) Orange-on-white exterior.
(d) Black-on-red, interior or exterior.

Monochrome.—This ware is commonly in the form of globular pots with outflaring rim.

(a) Plain orange, interior and exterior.
(b) Plain orange, exterior.
(c) Plain white, exterior.

INCISING

Bold incising.—This is a freehand technique where deep parallel lines were formed, usually in curvilinear patterns.

Light incising.—This is a somewhat more delicate technique in which parallel lines usually were applied to form a crosshatched design.
Narrow line combing.—This name has been given to a style where a comb with three or four tines was used to produce a special effect. Bands produced in this way were vertical, horizontal, curvilinear, crosshatched, or squiggled.

Multiple line combing.—As the name implies, a sharp comb with more teeth was used. The designs are less precise than in narrow line combing. Perhaps to be considered a variation of this, is combing with the edge of a pecten or scallop shell. This usually is applied rather lightly and produces an effect similar to brushing, as the lines are broad and shallow.
Figure 39.—Restored Taboguilla orange-and-white bowl; orange body, white shoulder, orange interior and exterior lip.

Figure 40.—Restored Taboguilla jar with deep multiple line incising.
Figure 41.—Restored Taboguilla jar with deep multiple line incising.
Figure 42.—Restored Taboguilla jar with deep multiple line incising.
Figure 43.—Restored Taboguilla jar with deep multiple line incising.
Figure 44.—Incised sherds from Taboguilla—1.
The most common method of indenting was to press with the edge of a scallop shell. Indentations also were produced with a wedge-shaped implement. Ordinary punctate designs, produced with the point of a sharp instrument, are rare. Usually the punctations are coarse.

Figure 45.—Restored Taboguilla buff ware jar with scallop indented filleting.
Figure 46.—Restored Taboguilla buff ware jar with scallop indented filleting.
Filleting.—Raised lines were applied horizontally, vertically, and in curvilinear style. Frequently the fillets were plain; more often they were decorated by indenting, either with a scallop shell or a wedge-shaped implement.

Animal figures.—Filleted designs occasionally were embellished further with stylized figures of lizards (alligators) or frogs.

Bosses.—Hemispherical bosses were used rather frequently. Sometimes they were isolated or in pairs, sometimes placed close together in parallel lines or in a haphazard fashion.

Figure 47.—Restored Taboguilla incised jar with applique crescents.
Loop handles were attached to subglobular bowls of plain red ware. Some were flat, others round in cross section. The great majority were placed horizontally, but there were a few vertical examples.

**PEDESTAL BASES**

The most elaborately decorated vessels, as a rule, were the pedestal base bowls. Instead of the regular sweeping upward curve usually seen in Panama, the Taboguilla examples typically have a bulge in the column between the base and the bowl. Some of the bases are decorated by pressing with the edge of a scallop shell. Most are scallop combed on the interior.

**TRIPODS**

There was a single specimen of a Chiriquí type tripod bowl of brown ware. This was undoubtedly an imported piece, but is interesting because of its association. It was well polished on the exterior but rough on the inside. The body has a sharp shoulder decorated with bosses, and the inside of the outflaring rim had been painted red. The hollow supports had been broken off, so their form is conjectural.

**STONE AND SHELL**

Artifacts other than pottery were extremely scarce. Two small celts of a hard fine-grained blue diorite are 7.5 cm. and 5.5 cm. in length. Broad at one end, they are pointed at the other. They are relatively thin and were shaped by a combination of flaking and polishing (pl. 65, b, c).

A third specimen of the same material is better finished, but its original form is puzzling. Although the photograph does not show this fact, it has a very sharp cutting edge at both ends, thus making it unique. Since both sides are broken off, it may be that it is the middle of an elongated implement with sharp sides (pl. 65, a).

A number of chips of yellow flint were scattered through the deposit, but no knives or arrowheads were found (pl. 65, d).

A single massive polished shell cylinder was found. It is unperforated and probably was not intended as a bead (pl. 65, e).

An imitation jaguar canine of shell, perforated laterally, was found in the nearby rock shelter (Taboguilla–3).
Figure 48.—Restored Taboguilla pedestal base bowl with orange, black, and white decoration. *b*, Interior of *a*. 
Figure 49.—Restored Taboguilla pedestal base bowl with black and white decoration. 

b, Interior of a.
Figure 50.—Restored Taboguilla black and white decorated pedestal base bowl.
Figure 51.—Restored Taboguilla black and white decorated pedestal base bowl.
Figure 52.—Restored Taboguilla black and white decorated pedestal base bowl.
Figure 53.—Restored Taboguilla black and white decorated pedestal base bowl.
682-611—64—27
Figure 54.—Restored Taboguilla pedestal base bowl decorated with orange, black, and white.
Figure 55.—Restored Taboguilla pedestal base bowl decorated in black and white.
Taboguilla-3 was a rock shelter which had been used for burial purposes. Fragments of long bone shafts pertained to at least five individuals. One was an infant, another a child, and the rest were probably adults. Also present were two right maxillary and three mandible fragments, an almost complete mandible and seven loose teeth, a right mastoid process of an adult and another of a child. There were two fragments of a skull vault.

The majority of the pottery consisted of sherds belonging to large unpainted buff ollas. There were, however, a variety of decorated sherds from smaller vessels.

Painting consisted of black-on-white, black-on-red, or plain red or orange.

There was some incised ware and both plain and indented filleting. One unique sherd indicated that the vessel had been wrapped with a fiber string and then painted white, thus producing a negative design where the cord had been (pl. 84, f).

As already stated, one of the two shell artifacts that we found on Taboguilla consisted of the replica of a jaguar canine, perforated laterally at the middle as though it had been one of a necklace of similar objects (pl. 65, f).

REFERENCES CITED


Ringrose, Basil. 1684. The dangerous voyage and bold attempts of Captain B. Sharp. London.
EXPLANATION OF PLATES

PLATE 45

*Rim sherds from large vessels; Taboga-1*

a, Smooth buff, grit tempered brown core; trench 2, 12–24 inches.
b, Smooth buff, grit tempered brown core; trench 1, 12–24 inches.
c, Smooth buff, grit tempered brown core; trench 1, general.
d, Buff slip on exterior and interior, red painted lip, grit tempered brown core; trench 2, 0–12 inches.
e, Smooth buff, grit tempered buff core; trench 2, 0–12 inches.
f, Smooth buff, grit tempered buff core; trench 1, 12–24 inches.
g, Smooth buff, grit tempered buff core; trench 2, 12–24 inches.
h, Red-slipped exterior, grit tempered, reddish brown core; trench 1, 12–24 inches.
i, Plain buff, grit tempered light brown core; trench 1, 0–12 inches.
j, Buff-slipped interior, scallop combed neck, red-painted lip, grit tempered light buff core; trench 2, 12–24 inches.
k, Slipped buff (or orange slipped ?), grit tempered, painted lip, buff core; trench 1, general.
l, Smooth buff, grit tempered, narrow gray core with buff margins; trench 2, 0–12 inches.

PLATE 46

*Miscellaneous sherds; Taboga-1*

a, Exterior painted white on buff with red band under rim; interior red painted; deep groove around lip; gray core, reddish brown margins; trench 1, 12–24 inches.
b, Interior slipped red, exterior smooth buff; paste fired buff on exterior margin, interior margin gray; trench 2, 0–12 inches.
c, Same as b; trench 2, 0–12 inches.
d, White exterior, scallop combed neck; interior painted red, well polished, red paint extends over the rim; core fired white; trench 2, 12–24 inches.
e, Light buff with splotches of pink; combed exterior with incised design, interior smooth, core fired pinkish buff; trench 2, 24–36 inches.
f, Red painted interior, paint extends over lip to form a band on rim exterior; exterior polished buff; reddish brown core; hole drilled near rim; trench 1, 0–12 inches.
g, Red painted interior, exterior buff, smooth; reddish brown core; two holes punched 11 mm. apart; trench 2, 0–12 inches.
h, Black-on-red with incised and punctate design; exterior painted red, interior plain buff; three black lines painted vertically on rim; punctuated zone, polished buff; reddish brown core; trench 1.
i, Zoned red-on-buff; narrow zones slipped buff; interior unpainted, unslipped; reddish brown core; trench 2, 24–36 inches.
j, Zoned red-on-buff with deep punctations; red zones smooth; brown core; trench 2, 24–26 inches.
k, Orifice of bottle necked jar, plain buff, rough interior and exterior; flat lip painted red; pinkish buff paste; trench 2, 24–36 inches.
l, Red painted interior, buff exterior; deep groove around lip; dark gray paste; trench 2, 0–12 inches.
m, Zoned buff-on-red; narrow buff zones unpainted; exterior coated with carbon; interior unslipped, unpainted; brown core; trench 2, 0–12 inches.
PLATE 47

Painted sherds; Taboga-1

a, Red painted exterior, zoned areas in buff; vertical zoned area outlined by two incised lines; top of zoned area not outlined; interior, buff, unslipped; fine grit tempered buff core; trench 2, 12-24 inches.
b, Exterior, zoned red-and-black, interior red; deep groove around lip; brown paste; trench 2, 12-24 inches.
c, Red painted rim, red slipped interior; exterior polished buff; brown paste; trench 2, 24-36 inches.
d, Exterior buff-slipped with red painted design; interior, unslipped buff; gray core with buff margins; trench 2, 24-36 inches.
e, Red slipped interior and exterior; fine black vertical lines (2 mm. wide) on interior; reddish brown paste; trench 2, 12-24 inches.
f, Zoned red-and-white exterior, red interior; brown paste; trench 2, 12-24 inches.
g, Zoned black-on-white-on-red exterior; lip of rim painted white; two black lines painted parallel to zoning incision on white; interior of neck painted red, rest of interior unpainted, unslipped buff; exterior margin and core brownish red.
h, Red slipped interior and exterior; elongate punctations inside of neck on buff band, but not zoned with incising; buff paste; trench 2, 12-24 inches.
i, Zoned red-on-buff, buff surface slipped; interior, unslipped buff; buff paste; trench 1, 12-24 inches.
j, Thin ware; zoned red-on-buff; narrow buff zones unpainted; interior unslipped buff; reddish brown core; trench 1, 12-24 inches.
k, Red-on-white; interior slipped white 10YR 8/1, painted with red vertical lines 5 mm. wide; interior of rim painted red; exterior, smooth buff; light brown paste; trench 2, 12-24 inches.
l, Black-on-red-on-white; white 10YR 9/4 design, red triangle outlined in black; lip painted red; interior unpainted, unslipped; brick red paste; trench 1, 24-36 inches.

PLATE 48

Various zoned designs; Taboga-1

a, Zoned red-on-black-on-buff; from top to bottom the bands are red, black, buff, black, buff; punctate zone, buff; interior rough buff; trench 1.
b, Well polished, zoned red-and-white exterior, interior red; deep groove in lip; small nodule on rim; trench 2, 12-24 inches.
c, Red-on-buff; punctate zone buff, red area polished; interior, rough buff; trench 1.
d, Zoned red-and-black-on-buff; from top to bottom the bands are red, black, buff, black; elongated punctations in buff band; trench 1.
e, Red-on-buff; punctate zone unpolished buff, red area polished; interior red and well smoothed; trench 1, 12-24 inches.
f, Zoned red-on-buff; from left to right the bands are buff, red, buff, red; the ware is quite thin, 5 mm.; trench 2, 12-24 inches.
g, Zoned brown-on-red; it is possible that the zoned areas were originally black; interior rough buff; end of zoned areas not closed; trench 2, 12-24 inches.
h, Zoned red-and-black-on-buff; from top to bottom the bands are black, buff, black, red; the ware is quite thick, 14 mm.; trench 2, 12-24 inches.
i, Zoned red-on-buff; the red zone is polished, the buff zones unpolished but smooth; interior rough; trench 1, 24–36 inches.

j, Zoned brown-on-red, interior rough buff; the brown areas may once have been black; this sherd was coated with carbon on the exterior; trench 1, 12–24 inches,

PLATE 49

Miscellaneous sherds; Taboga-1

a, Subglobular vessel with small orifice; smooth red painted exterior; rough unslipped interior; brown paste; trench 2, 12–24 inches, 10R 4/10.
b, Portion of large pedestal base; exterior zoned black-on-red, with punctated buff zones; rim red, indented area buff; interior rough buff; buff paste; trench 2, 12–24 inches.
c, White interior and exterior; interior smooth, exterior combed; rim painted red; white paste; trench 2, 24–36 inches.
d, Buff slipped interior and exterior; red painted lip; buff paste; trench 2, 24–36 inches.
e, Buff interior and exterior; exterior of neck rough, interior smooth; rim painted red; buff paste; trench 2, 24–36 inches.
f, Subglobular buff jar with small orifice, incised and dentate design; buff paste; hole drilled near the orifice; thin ware; trench 1.
g, Rough buff exterior, red painted interior with red paint extending over the rim; brown paste; trench 2, 0–12 inches.

PLATE 50

Pedestal and ring bases; Taboga-1

a, Smooth red painted exterior, rough buff interior; black core with buff margins; 11 cm. high and 44 mm. in diameter; trench 1, 0–12 inches.
b, Black-and-white-on-orange; the broad dark bands are orange; the narrow bands are black; rough interior; brown paste; 42 mm. in diameter; trench 2, 12–24 inches.
c, Smooth red painted exterior, rough interior; the interior of the bowl surmounting the base was also red; reddish brown paste; 45 mm. in diameter; trench 1, 12–24 inches.
d, Modified pedestal base; rough unpainted exterior and interior; base 22 mm. high; buff paste; trench 2, 12–24 inches.
e, Modified pedestal base; rough buff interior and exterior; base 17 mm. high; trench 1, 12–24 inches.
f, Flaring pedestal base; orange slipped, rather rough exterior, buff interior; the interior of the bowl surmounting the base was painted red; gray core fired orange on exterior margin; trench 2, 0–12 inches.
g, Modified pedestal base; plain buff exterior and interior; the interior of the bowl was smooth and painted red; buff paste; base 25 mm. high; trench 1, 0–12 inches.
h, Modified pedestal base; rough buff exterior and interior; interior of bowl smooth; 30 mm. high; buff paste; trench 2, 0–12 inches.
i, Ring base; buff slip interior and exterior; buff paste; 1 cm. high; trench 2, 0–12 inches.
PLATE 51

Taboga stonework

a, Crude ax of fine grained basalt; trench 1.
b, Polished ax of blue-gray rhyolite; trench 1, 0–12 inches.
c, Ax fragments of rhyolite; trench 2, 0–12 inches.
d, Ax fragments of rhyolite; trench 2, 12–24 inches.
e, Gray diorite ball; trench 2, 12–24 inches.
f, Bird effigy of tuff; trench 2, 12–24 inches.
g, Gray diorite ball; trench 1.
h, Crude diorite ax; trench 1, 24–36 inches.
i, Crude diorite ax; trench 2, 12–24 inches.
j, Flat, flaked disk of blue chert; trench 2, 12–24 inches.

PLATE 52

Taboga and Taboguilla stone and shell

a–c, Taboguilla–1; axes of blue rhyolite; a is unique in that it has a sharp cutting edge on both ends; trench 2, 0–12 inches.
d, Taboguilla–1; sharp edged flake of rhyolite; trench 2, 0–12 inches.
e, Taboguilla–1; heavy solid shell cylinder.
f, Taboguilla–3; laterally perforated imitation jaguar canine of shell, these two specimens (e and f) were the only shell artifacts found on either Taboga or Taboguilla.
g, Taboga–1; small rhyolite celt; trench 2, 0–12 inches.
h, Taboga–1; arrowhead of yellow jasper; trench 2, 0–12 inches.
i, Taboga–1; arrowhead of red and yellow jasper; trench 2, 12–24 inches.
j, Taboga–1; flake of yellow jasper; trench 2, 12–24 inches.
k, Taboga–1; incised sherd of Utivé type found back of the sandspit. This was the only Utivé sherd found on the islands. It was not associated with a particular site.

PLATE 53

Miscellaneous sherds; Taboga–4

a, Red slipped exterior, black on buff interior; fine grit temper; outside margin of core black, inside margin light buff.
b, Red-and-black-on-buff; broad band outlined by buff is red, remainder of painted design, black; grit tempered, core black; both margins buff.
c, Red slipped interior and exterior, black stripes on interior only, grit tempered, light buff core.
d, Red-and-black-on-buff exterior only, interior unslipped; grit tempered, buff core, gray margins.
e, Black-on-buff, exterior only; grit tempered, light buff core.
f, Red painted interior, lip and exterior buff except for broad groove under lip which is red painted; fine grit temper; inner margin black, outer margin buff.
g, Black-and-red-on-buff exterior; interior buff, unslipped; fine grit tempered, light buff core.
h, Exterior and interior painted red, lip black-on-buff; grit tempered, buff core.
i, Red painted exterior and interior, lip unpainted buff; grit tempered, buff core.
j, Red painted interior and exterior; black horizontal stripes on interior; grit tempered, light reddish brown core.
k, Lamellar flake of yellow flint.
a, Smooth red painted interior and exterior; uniform brownish red grit tempered core.
b, Red painted lip, otherwise unpainted, unslipped; combed neck, uniform light buff grit tempered core.
c, Smooth red painted interior and exterior; light brown grit tempered core.
d, Buff slip, combed neck; uniform light buff, grit tempered core.
e, Interior buff slipped, exterior unslipped; grit tempered light brown core.
f, Buff color, smooth interior, combed neck; uniform buff grit tempered core.
g, Orange slipped exterior, unslipped interior; uniform grit tempered buff core.
h, Red painted lip, buff slipped interior, combed neck; light buff grit tempered core.
i, Same description as h.
j, Interior buff slipped, neck combed; grit tempered light brown core.

PLATE 55
Urabá urns

Large urns of buff or brick red ware, offerings in rock shelter burial on Urabá. Not to scale. The vessels vary from 30 to 40 cm. in height.

PLATE 56
Urabá urns

Large urns of buff or brick red ware, offerings in rock shelter burial on Urabá. Not to scale. The vessels vary in height from 30 to 40 cm.

PLATE 57

a, Offertory in rock shelter on Urabá.
b, Site of Taboguilla-1, on Taboguilla Island, looking toward the mainland of Panama.

PLATE 58
Bold incising

These vessels seem typically to have been of subglobular shape and rather large with wide outflaring rim (see pl. 60, a). The incising is usually combined with both horizontal and vertical scallop indented filleting. The paste has a wide black core, with narrow dark buff or brown margins. It is medium tempered. The exteriors were carelessly smoothed before incising. Sometimes the surface was lightly combed, as in b. The exteriors are unpainted and slightly rough, often carbonized. Many retain the earth color of grayish brown, as earth adheres to the slightly rough surface and is difficult to remove. The inner surfaces are polished brown. Small particles of mica show on the surface. The bases are generally polished.

PLATE 59
Combing and incising

a, Narrow line combing, scallop indented fillet around neck; plain buff ware.
b, Incised red.
c–f, i–k, m, Incised buff ware.

g, Buff incised exterior, red interior.
h, Exterior incised, buff and red; interior red.
l, Exterior incised red, interior buff.
Light horizontal combing on vessels before incising is apparent on a, e, f, k, l, m.

PLATE 60
Incised ware

a, Large olla rim, orange slip on lip and interior, vertical appliqued fillet with scallop indentations; brown exterior.
b, Orange slip interior and exterior.
c, f, Thick unpainted light buff ware.
d, Thin light buff ware, orange lip; scallop indented fillet at base.
e, Orange exterior and interior.
g, Brown exterior, red lip and interior.
h, Orange interior and exterior.
i, j, k, Unpainted buff ware.

PLATE 61
Various rim decorations

a, c–k, Red slipped ware.
a, c, d, f, i, Black on red paint.
b, Buff with rim painted red on interior.
k, Red on light buff.
l, m, Wavy combing over horizontal combing; brown ware.

PLATE 62
Narrow line combing

c, Pecten incised decoration near rim.
i, Globular bowl, red slipped interior and exterior, fire blackened; decorated with two horizontal or concentric narrow line combed elements.
All of the remainder are unpainted buff ware jars with vertical narrow line combed elements, some with additional raised applique ornaments. In some instances the vertical combing is superimposed over lighter horizontal combing. On some parts of sherds (a, c, f, h), the buff paste has fired red.

PLATE 63
Combed ware

a, b, e, Thick brown ware; unpainted with multiple line combing.
The remaining pieces show variations of narrow line combing techniques.
c, l, Brown ware.
d, g–k, Buff ware.
f, Red interior and exterior.

PLATE 64
Fragments of globular bowls decorated with combed designs

a, Globular bowl, orange slip inside and out, lower part blackened by firing; five concentric two-line semicircles decorate side.
b, Globular bowl, orange slip inside and out, lower part blackened by firing; decorated with three concentric narrow line combed semicircles.
c, Globular bowl, light buff slip outside with combed decoration; orange slip inside.
d, Globular bowl, orange slip outside, combed decoration; inside plain buff; fire blackened exterior.
e, Globular bowl, orange slip inside and out, exterior fire blackened; decorated with three concentric narrow line combed semicircles.
f, Globular bowl, orange slipped interior and exterior; exterior fire blackened; decorated with two double line combed concentric semicircles.
g, Globular bowls, orange slip inside and out; exterior fire blackened; decorated with four double line combed concentric semicircles.

PLATE 65
Multiple line combing

a, Buff exterior; orange slip on interior.
b, Globular vessel with red slip exterior and interior.
c, f, Buff exterior, smooth black interior.
d, e, g, Buff interior and exterior.
h–k, Light buff interior and exterior.

PLATE 66
Scallop impressions

a, c, e, g, l, Unpainted light buff exterior with scallop impressions over light combing; orange slip on interior.
b, d, k, Unpainted light buff interior and exterior; scallop impressions.
f, h, i, j, White on orange exterior, light buff interior; scallop impressions on the white zone only. These are probably sherds of the bases of pedestal supports.

PLATE 67
Filleting on combed surface

Sherds of large unpainted ollas. Where the parallel fillets are notched, the notching was done simultaneously with an edged tool.
a, Buff interior, brown exterior.
b–j, Light buff interior and exterior.

PLATE 68
Filleted ware

a, Applique lizard or alligator on large unpainted olla; notched filleting; light buff interior and exterior.
b, h, i, Buff interior and exterior.
e, Orange and buff exterior; interior red; combing and filleting.
f, Red exterior.

PLATE 69
Subglobular bowls with scallop indented filleting

a, Orange.
b–i, Red.
The holes were punched from the outside to the inside while the clay was plastic. In some instances the interior was permitted to remain rough; in others the interiors were smoothed after the punching.

b, f, Side and bottom sherds from the same vessel, a straight sided jar with outflaring rim and slightly rounded bottom; exterior painted black on white; interior orange slipped; good quality ware.

g. The vessel was probably similar in form to f; exterior painted red on black; bottom polished buff and the interior is orange over buff.

The remainder of the sherds are of unpainted buff ware. Several retain the gray color of the soil which clings to the slightly rough surface and is difficult to wash away.

PLATE 71
Sherds with bossed decorations

a, c, d, Sherds from subglobular bowl; red exterior and lip; buff interior with horizontal combing; bossed decoration on exterior; horizontal strap handles, round on outer surface, flat on the inside.

b, Unpainted buff ware, bosses appliqued on exterior.

e, f, Buff ware, combed surface with bosses.

g, Brown ware, combed shoulder with bosses, smooth base.

h, Red exterior and interior, bossed decoration.

i–k, Thin hard ware, orange slip inside and out, bosses on exterior.

Note: a, c, d, are all sherds from the same vessel, but each shows a different color. The color was intended to be red but the handle section of a and the surface of d were burned to a brown shade. a and c show a buff interior while, as a result of less erosion, the interior of d is red. This point is stressed to emphasize the fact that color determinations do not always mean too much as variations are brought about by several factors.

PLATE 72
Broad flat rims of subglobular bowls

These are all of a characteristic fine-grained hard paste of a light yellowish buff color. Some have some combing on the interior and on or under the rims. Sherds exhibiting this combination of form and ware are abundant and constitute one of the diagnostic types of the site.

PLATE 73
Subglobular bowls with strap handles

The handles are usually horizontal; only one was vertical. All of this ware has the same shape and rim form and all is orange slipped, fired to brown in some places. Commonly it is decorated with scallop indented filleting (e, f).

PLATE 74
Rim sherds of flat shallow plates

The unincised portions of the rims and bases have an orange slip. The areas with squiggled incising are buff. The ware is hard and the paste fine grained. (See pl. 75 for interiors.)
PLATE 75
*Interior of rim sherds shown on plate 74*

a, b, c, e, Black-on-red.
d, f, Black-on-white.
g, Red-and-black-on-buff.

PLATE 76
*Miscellaneous painted sherds*

a, White-on-orange exterior and interior; interior carbonized.
b, d, Orange-and-white exterior, buff interior.
c, Black and brick red on white interior, orange exterior.
d, f, h, Black-and-red-on-white exterior, buff interior.
g, Orange-and-white exterior, buff interior.
i, Red on light buff exterior, light buff interior.
j, Black, orange, and white exterior; buff interior.

PLATE 77
*Black-on-orange-and-black outlined by white-on-orange*

a, d, e, g, Unpainted buff interior.
b, f, Orange interior
c, Black-on-orange interior.
d, i, j, The painting is repeated on both sides.

PLATE 78
*Black-and-white-on-orange pedestal base bowl sherds*

a, b, c, e, g, Black-on-orange interiors.
d, Unpainted buff interior globular bowl.
f, Plain orange exterior.

PLATE 79
*Pedestal base bowl sherds (reverse of plate 78)*

a, g, Black-on-white-and-orange exterior.
b, c, Black-on-yellow-orange exterior (possibly due to weathering?). In c the black paint is directly on the orange and outlines the white line. In other cases the black is put on white as it has sometimes flaked off leaving white.
d, Black-on-white-and-orange globular bowl, exterior.
e, Black-on-orange exterior.
f, Black-on-white-and-orange interior.

PLATE 80
*Pedestal base bowl sherds*

Interiors, black-on-white pedestal base bowls with orange lips. All have white slip on the exterior except d, which has an orange exterior.

PLATE 81
*Sherds from black-and-white-on-orange globular bowls*

a, c, d, f, j, Unpainted buff interior, black-on-white exterior.
i, Black-on-orange interior, black-and-white-on-orange exterior.
The remainder have orange interiors, with black-and-white-on-orange exteriors.
PLATE 82

Miscellaneous black-on-white-and-orange sherds

a, Orange lip, black on white design, exterior; interior, black on orange.
b-h, Black-on-white exterior.
i, j, Exterior unpainted combed buff area, orange painted lip and band; interior orange.

PLATE 83

Miscellaneous painted sherds

a, Black, white, and orange interior, orange exterior; pedestal base ground down to ring base.
b, Narrow neck jar, white slip.
c, Black, white, and red bowl, exterior; buff interior.
d, Black and white, part of pedestal base.
e, Black and white interior, orange exterior.
f, Rim of large olla; buff and brown exterior, red and brown interior.
g, Orange and white.
h, Large olla rim; red interior and exterior.
i, Shallow bowl, orange-on-white interior, white exterior.
j, Orange lip; black-on-white interior, white exterior.

PLATE 84

Miscellaneous sherds from rock shelter near Taboguilla-1

a, Crudely finished large olla, unpainted terra cotta.
b, Unpainted buff rim.
c, Incised, orange interior and exterior.
d, Black on white exterior, white interior, fine, hard paste.
e, Orange interior and exterior.
f, Black-and-white-on-buff exterior, buff interior. It appears as though the vessel might have been wrapped with a string or fiber and the white paint applied, thus producing a type of negative design by leaving narrow strips of the buff surface unpainted.
g, Orange interior and exterior.
h, Incised, buff interior and exterior.
i, Orange interior, buff exterior.
j, Orange interior, exterior white with orange lip.
k, Black on red exterior, red interior.
l, Buff interior and exterior, punctate designs.
m, Orange exterior and interior, indented filleting.
n, Buff interior and exterior, plain filleting.

PLATE 85

Filleted and scallop impressed ware

a, c, Scallop indented filleting; orange inside and out; exterior c, burned black.
b, Punctate, buff unpainted pedestal support.
d-f, Plain filleting over brushed exterior; unpainted light buff.
g-j, Notched filleting over brushed unpainted exterior; h, orange interior; other interiors unpainted.
k-l, Plain fillet; k, unpainted light buff, l, orange inside and out.
m, Scallop impressed, unpainted
n-o, Unpainted, notched filleting.
p, Unpainted light buff scallop impressed shoulder.

PLATE 86
Miscellaneous sherds

a, Unpainted exterior, narrow line combing over horizontal combing, orange slip interior.
b-c, Flat rim yellow buff bowl with combed or brushed exterior.
d, Orange rim with combing; interior unpainted.
e, Pedestal base, light buff smooth exterior, brushed interior.
f, Narrow line combing over brushed unpainted exterior; interior unpainted.
g, h, Broad line combed exterior; unpainted inside and out dark buff.
i, Incised exterior, smooth interior; orange inside and out.
j, Unpainted squiggled lines (see pl. 74); interior orange.
k, Thin ware composite silhouette; incised exterior burned black; interior smooth, buff.

PLATE 87
Miscellaneous sherds

a, Black-on-orange, large rim with black triangle depending from lip on inside.
b-c, Black-on-red, inside and out, large rim.
d, Buff pedestal stand with slots; inside of bowl red.
e-f, Black-on-red bowl, inside orange.
g, Red lip, white on red exterior, inside red; plate rim.
h, Black-on-orange exterior; interior unpainted buff.
i, Buff collander.
j, Horizontal strap handle; unpainted buff.
k, Black-on-white bowl (the only black and white sherd from Taboguilla-2).

PLATE 88
Miscellaneous sherds

a, Light buff, unslipped, shell indented and incised.
b, Orange slip, indented.
c, Orange slip inside and over rim; incised section unslipped.
d, Combed and indented, unslipped light buff.
e, Orange slip on outside; the lower part where the coiling has separated is pecten shell indented as though to make the coils adhere better.
f, Light buff, unslipped, roughly shell indented.
g, Orange slipped, interior dappled with small white spots like glaze.
h, Light buff, unslipped, incising over combing.
i, Orange slip, inside and over rim; vertical incising.
j, Light buff, unslipped, incising.
k, Light buff, unslipped, combing on interior, zoned incising exterior.

PLATE 89
Miscellaneous sherds

a, Orange slip, inside and out; vertical indented filleting on outside.
b, Orange slip, inside and rim (lip).
c, Orange slip inside; outside unslipped.
d, Orange slip inside and out.
e, Light buff, smooth, unslipped.
j, Light buff, smooth, unslipped.
g, Incised, light buff, smooth, unslipped.
h, Incised, light buff, smooth, unslipped.
i, Zoned punctate, punctate, fillet light buff, unslipped.
j, Incised over combing, light buff, unslipped.
k, Punctate fillet, incised, unslipped light buff.
l, Incised and indented, orange slip.
m, Heavy incising, light buff, unslipped.
n, Indented fillet, light buff, unslipped.
o, Incising over combing, orange slip.
p, Herringbone incising, orange slip.
q, Zoned incising, light buff, unslipped; mica abundant in temper.
r, Orange slip inside and out.

PLATE 90

a, b, Taboguilla-3. Rock shelter site on Taboguilla.
Rim sherds from large vessels; Taboga-1.

(For explanation, see p. 337.)
Miscellaneous sherds; Taboga-1.

(For explanation, see p. 337.)
Painted sherds; Taboga-1.

(For explanation, see p. 338.)
Various zoned designs; Taboga-1.

(For explanation, see pp. 338-339.)
Miscellaneous sherds; Taboga-1.
(For explanation, see p. 339.)
Pedestal and ring bases; Taboga-1.

(For explanation, see p. 339.)
Taboga stonework.

(For explanation, see p. 340.)
Taboga and Taboguilla stone and shell.

(For explanation, see p. 340.)
Miscellaneous sherds; Taboga-4.

(For explanation, see p. 340.)
Rim sherds; Taboga-4.

(For explanation, see p. 341.)
Urabá urns.

(For explanation, see p. 341.)
Urabá urns.

(For explanation, see p. 341.)
Sites on Urabá and Taboguilla Islands.

(For explanation, see p. 341.)
Bold incising; Taboguilla-1.

(For explanation, see p. 341.)
Combing and incising; Taboguilla-1.

(For explanation, see pp. 341-342.)
Incised ware; Taboguilla-1.

(For explanation, see p. 342.)
Various rim decorations; Taboguilla-1.

(For explanation, see p. 342.)
Narrow line combing; Taboguilla-1.

(For explanation see p. 342.)
Combed ware; Taboguilla-1.

(For explanation, see p. 342.)
Fragments of globular bowls decorated with combed designs; Taboguilla–1.

(For explanation, see pp. 342-343.)
Multiple line combing; Taboguilla–I.

(For explanation, see p. 343.)
Scallop impressions; Taboguilla—I.

(For explanation, see p. 343.)
Filleting on combed surface; Taboguilla-1.

(For explanation, see p. 343.)
Filleted ware; Taboguilla–1.
(For explanation, see p. 343.)
Subglobular bowls with scallop indented filleting; Taboguilla–1.
(For explanation, see p. 343.)
Collanders; Taboguilla-1.

(For explanation, see p. 344.)
Sherds with bossed decorations; Taboguilla-1.
(For explanation, see p. 341.)
Broad flat rims of subglobular bowls; Taboguilla-1.

(For explanation, see p. 344.)
Subglobular bowls with strap handles; Taboguilla-1.
(For explanation, see p. 344.)
Rim sherds of flat shallow plates; Taboguilla-1.
(For explanation, see p. 314.)
Interior of rim sherds shown in plate 74.

(For explanation, see p. 345.)
Miscellaneous painted sherds; Taboguilla-1.

(For explanation, see p. 345.)
Black-on-orange-and-black outlined with white-on-orange; Taboguilla-I.

(For explanation, see p. 345.)
Black-and-white-on-orange pedestal base bowl sherds; Taboguilla-1.
(For explanation, see p. 345.)
Reverse of plate 78.
(For explanation, see p. 345.)
Pedestal base bowl sherds.

(For explanation, see p. 345.)
Sherds from black-and-white-on-orange pedestal base bowls; Taboguilla–1.
(For explanation, see p. 345.)
Miscellaneous black-on-white-and-orange sherds; Taboguilla-I.

(For explanation, see p. 346.)
Miscellaneous painted sherds; Taboguilla-1.

(For explanation, see p. 346.)
Miscellaneous sherds; Taboguilla-3 rock shelter.

(For explanation, see p. 346.)
Filleted and scallop impressed ware; Taboguilla-2.

(For explanation, see pp. 346-347.)
Miscellaneous sherds; Taboguilla-2.
(For explanation, see p. 347.)
Miscellaneous sherds; Taboguilla-2.

(For explanation, see p. 347.)
Miscellaneous sherds; Taboguilla-I.

(For explanation, see p. 317.)
Miscellaneous sherds; Taboguilla-1.

For explanation, see pp. 347-348
Taboguilla-3; rock shelter site on Taboguilla.

(For explanation, see p. 348.)