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THE ARCHAEOLOGY OF MAPPS CAVE: A CONTRIBUTION TO THE PREHISTORY OF BARBADOS

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Introduction

In 1971, 1972, and 1973 we conducted archaeological investigations at sugar plantation sites on the southeastern Caribbean Island of Barbados. These investigations were designed to fill gaps in written records on the Island's slave system and to recover patterned indicators of mortuary, domestic, and acculturative behavior of African slaves and their descendants from the middle of the XVII Century to 1834, the year slavery ended throughout the British Empire (Handler and Lange 1978).

Because our research focused on the historical period, prehistoric Amerindian remains were tangential to our interests. In fact, we found such remains at only one of the plantations that we surveyed and tested—in a cave at what in earlier times had been the Mapps sugar plantation (Fig. 1). We were originally attracted to Mapps because contemporary local tradition maintained that slaves had once inhabited the cave. Had the cave been occupied by slaves, we hoped its dry environment might have facilitated the preservation of organic materials, and that the patterns of archaeological remains within the cave might contrast with those at slave sites in non-cave contexts.

In this paper, our interest is simply to report on the limited prehistoric data we recovered from Mapps Cave; we also place these data within the context of what is known about Barbadian prehistory.

Amerindian artifactual remains have been known to Europeans on Barbados for many years (*vid.*, *e.g.*, Hughes 1750; Chester 1870), but Fewkes (1915) provided the earliest modern attempt systematically to assess the Island's prehistory. In doing so he observed that 'Middens, or sites of aboriginal settlements, are found at various locations on Barbados, occurring inland as well as on the coast. We have records of archaeological material from every parish in Barbados,' and he listed many of the better known localities (1915:50). In many cases there appears to have been greater settlement density along the coasts, but this may have only been a result of agricultural disturbance in which many inland sites were destroyed by intensive sugar cane cultivation. The population density of modern Barbados is approximately 1500 per square mile, one of the world's highest; in 1834, the Island already had a density of 600 persons per square mile, so relatively dense human population has been a factor affecting the preservation of the archaeological record for some time (Handler and Lange 1978:13).

Antiquarians have long been interested in Barbadian prehistory, and persons such as Barton (1953) and Roach (1937, 1938) compiled summaries of artifact distributions and site locations. These and other earlier writers, such as Fewkes, often presaged modern themes—albeit sometimes not explicitly—in their discussions of artifact reutilization, trade in exotic materials, combined utilization of archaeological and historical records, the impact of subsequent behavior on the formation of archaeological contexts, settlement patterns, and the relationship between Barbadian prehistoric development and the Island's geographical and geological setting.

In the 1960's, Ripley and Adelaide Bullen were the first to conduct scientific research based on controlled excavations (Bullen and Bullen 1968; 1972). No other investigations of the Island's prehistory have been conducted, and the Bullens' work remains the broader context against which the data from Mapps Cave are presented.

Mapps Cave

Mapps Cave is geologically similar to a Yucatecan *cenote*: subterranean water has eroded a large subsurface area of limestone to form a cavern. At the eastern end of the cavern, part of the roof had collapsed and was open to the sky (Fig. 2). The floor at that end was covered with broken china, glass, crockery, roof tiles, conch shell fragments, and some white clay pipe fragments; a box from a recently opened Kentucky Fried Chicken outlet on the island was representative of more recent *débris*. The western portion of the cavern is much larger than the eastern part and forms the cave proper. The floor in the western portion had much less *débris*, primarily limited to conch shells, roof tiles, occasional china fragments, and sherds of Amerindian pottery.

In all, the cave floor was easily divided on the basis of content and concentration of surface materials. The edge of the cave floor under the western portion was shored up along its north side by coursed stonework (Fig. 2). We could not assign a date to this construction, but assume it is post-XVI Century and non-Amerindian.

Excavations at Mapps were conducted in the cave itself and in an adjacent open field. Within the cave a shallow 1-meter wide trench was excavated to bedrock for approximately two-thirds of the distance of the east-west axis (Fig. 2). Loose, powdery soil had accumulated over blocks of roof fall and the bottom of the excavation was quite uneven. Excavation usually terminated at 30 centimeters in depth and we did not observe a separation of strata between the historic and prehistoric materials. Excavation continued until the mixture of Amerindian and European materials became clearly evident.

In the field adjacent to the cave, a series of six 1 × 1 meter squares were excavated in an attempt to locate cultural deposits below the plow zone (in some

areas limestone bedrock was visible on the surface). The deepest of these test-pits terminated at 45 cm. below surface, and no undisturbed contexts were located. The majority of the adjacent area had been disturbed by deep plowing. No Amerindian material was found in the test excavations or in extensive surface collecting of plowed areas. Thus, the following discussion of artifactual material focuses exclusively on Amerindian data recovered from the cave.

Ceramics

All the Amerindian ceramics appear to be from the Suazey Complex (Bullen 1966) dating from A.D. 1000-1500 (Willey 1971:vol. II, 368), and is possibly associated with a Carib occupation. Bullen and Bullen noted that 'Sherds from the Suazey Series are recognizable in any collection from the Lesser Antilles as the "worst" pottery present. Classifiable as grit-tempered ware, crushed shell is sometimes present . . . Walls tend to be very thick, 8-12 mm., with a range of 4 to 18 mm. (1972:144).' Red-painting can also occur and is present on some sherds from Mapps (Fig. 3). The Bullens also noted that while the Suazey Series is abundant in the Windward Islands, it thins out rapidly in occurrence north of St. Lucia and is unknown in the Virgin Islands. The series is common on Barbados and Tobago, but does not occur in Trinidad or northeastern Venezuela, except at the pearl diving center of Margarita where Caribs (and other Indians) were imported as slave labor (Bullen and Bullen 1972:151). The location of Mapps Cave also conforms to the Bullens' observation that 'on Grenada, St. Lucia, and Barbados, Carib sites producing Suazey Complex ceramics concentrate on the windward (eastern) sites . . .' (1972:150).

Shells

The queen conch (*Strombus gigas*) was the most common type of marine shell found at Mapps Cave (*vid.* Table). In addition to being utilized for food by the Amerindian population, conch provided raw material for shell tools. All of the conch shells recovered from Mapps showed evidence of alteration or butchering—either to form a tool, facilitate meat removal, or both (Fig. 4). The most common tool forms were celts, with the category of artifacts Armstrong recently referred to as '*Strombus columella* tools' (1979:29) also present. We did not look specifically for the latter in the shell analyses we did in 1972, and hence these appear tabulated under 'fragments' of shell artifacts in the Table. The nearest source to Mapps for *Strombus gigas* is about 9-10 kilometers southwest in the Long Bay area of the coast (personal communication received from local informants at time of field work).

The only other recovered shells that were probably important as food were the West Indian top shell (*Cittarium pica*); *Nerita* is also a food shell, but is

much less common in the inventory than either the conch or top shells. *Purpura patula*, also present in small quantities at Mapps Cave, is well known as a source for purple dye (Gerhard 1964).

In the late XIX Century, Chester already realized the technological implications which the lack of locally available hard stones presented to the aboriginal groups of Barbados: 'It was therefore a problem . . . of what substance they should form their weapons and implements for daily use, and it was solved by their employment of the hardest material to which they had access, the shell *viz.* of the surrounding sea, such as the *cassis* and *conus*, and especially the great *strombus*;' he described surface-collected shell chisels and celts which ranged in length from 1½ inches to 6½ inches (1870; *vid.* Roach 1937).

Lithics

Barbados' non-volcanic origin had a profound effect upon the technology and cultural development of its Amerindian populations. For example, Chester (1870:43) noted:

There is not even a fragment of . . . primary or secondary rocks in the whole island . . . Weapons of *hard* stone are . . . occasionally found . . . but they are comparatively of very rare occurrence, and were, of course, brought either from the other islands where primitive volcanic rocks abound, or from the mainland of South America.

Roach discussed two implications of the absence of hard stone resources for the prehistoric inhabitants of Barbados: their attempts to utilize poor quality local materials and their secondary reutilization of imported artifacts. He noted (1938:2) that

. . . our aborigines' custom of putting damaged implements to secondary use was not confined to those of shell; for damaged *flattened* stone implements of South American origin, of both petaloid and oblong shape have been found, which bear marks of having been put to secondary use as hammerstones . . .

While Roach's identification of the lithic materials as 'of South American origin' lacks contemporary petrographic or other geological analyses, his observations on re-use were significant in light of modern archaeological concerns.

No lithic materials were recovered from excavation at Mapps Cave. One dioritic celt (Fig. 4) was surface-collected, however, during research at another plantation.

Discussion

Writing in the early XVIII Century, Hughes (1750:6-7) mentioned the possible human habitation of Barbados' caves and described what has been called variously 'Indian Cave', 'Indian Temple', or 'Indian Castle', located northeast of Speightstown (Fig. 1). In 1902, Fewkes visited Barbados, and, inspecting the cave, concluded that 'there seems no good reason to doubt their aboriginal characters. They have from the earliest times been known as Indian excavations,

and it would be strange if, after having been so called for so many years, they are not of Indian manufacture or associated with aborigines' (1922:85-86). Structural details of the caves (such as the presence of an entrance with a keystone arch) suggest they were at least modified by Europeans.

Chester (1870) also mentioned the brief exploration of '. . . some curious rock-hewn chambers excavated in the limestone in the neighbourhood of Bridgetown, and designated by the inhabitants as "Indian caves" . . . The "caves" in question are three in number, and are situated respectively at Lemon Grove, Mount Ararat, and on the Goodland Estate, all in the parish of St. Michael.'

In their carefully hewn walls, the caves mentioned by Fewkes and Chester are internally different from Mapps; moreover, these other caves contained niches carved in the walls (Chester 1870:49-51), features absent from Mapps (Fig. 5). Chester implied the caves were used by Amerindians and the niches used for placement of pottery idols. While impossible to decide without excavation and further documentary research, we interpret these caves as being of historic period, at least in many of the refinements such as arches. The linguistic confusion over the use of the term 'Indian' in conjunction with some of the caves is provisionally explained by historic period alteration, enhancement, and utilization of areas previously favored by Amerindians. The data from Mapps Cave clearly represent multi-component Amerindian and European use; in other specific cases closer attention to historical resources may resolve uncertainties.

The Bullens' excavations at numerous sites on different islands indicate to them that the Suazey Series is the last aboriginal ceramic complex prior to the arrival of the Europeans. The evidence for its late temporal position on Barbados is particularly clear at the Chancery Lane and Peak Bay sites (Bullen and Bullen 1968:137-138, 140-141), and 'Bullen notes that the Suazey Phase is more fully represented—in number of sites, and range of materials—on Barbados than on any other island' (Willey 1971:vol. II, 395). This suggested to Bullen a number of migration patterns related to the prehistoric development of the Caribbean. Willey also noted (1971:vol. II, 393) that 'West Indian archaeologists are by no means agreed on this identification of a Carib archaeological complex. In referring to the time when the Carib reached the Lesser Antilles, Rouse says: ". . . pottery may not be a good indicator of this event . . . when . . . the Carib killed the Arawak men and married their women, it was the women's language which survived. Since the women were potters, their ceramics should also have survived" (1964:514).' Haag (1965) also disagrees with Bullen's argument, to which Bullen has responded with further assessments regarding social implications of the probable mixing of Arawak and Carib populations and ceramic traits (Bullen and Bullen 1968:143). Basically, there does not seem to be enough systematic data from the Lesser Antilles to deal with this problem even now. Whatever the

cultural affiliation of Suazey ceramics, they seem to be very late in time. At Savanne Suazey in Grenada, Banana Bay on Baliceaux, and Indian Bay in St. Vincent, Suazey ceramic were found in association with sherds from Spanish olive jars (Bullen and Bullen 1972:166).

No Caliviny polychrome was found at Mapps although this pottery is known from other Barbadian sites. The Bullens believed that Caliviny polychrome immediately preceded the Suazey Series (and was of Arawak origin) or in some cases may even have been coeval with Suazey (Bullen and Bullen 1972:156-166). The absence of Caliviny suggests that Mapps Cave was occupied relatively late in the protohistoric period, apparently for a brief duration. It may also have been a specialized activity area and not a place of permanent habitation. Occupation of the cave itself is somewhat of a regional anomaly. From what is known of settlement pattern from limited surveys for prehistoric sites on Barbados and other islands in the Lesser Antilles, occupation seems to have been more frequent on terraces in front of caves or rock overhangs, and relatively rare within the caves themselves.

In reviewing the local and regional context for the Mapps Cave data, we see current limitations of archaeology in Barbados: high levels of site disturbance by agricultural practices and modern population densities, poor levels of artifact preservation due to a tropical climate, lack of architectural concentrations, and inadequate basic knowledge regarding aboriginal settlement patterns and subsistence practices.

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TABLE
MAPPS CAVE

Artifact Distribution	Surface	S1 W1					S1 W2			S1 W3			S1 W4			
		0 - 10 - 10	10 - 20	20 - 30	30 - 40	40 - 50	0 - 10 - cm10	10 - 40	40 - 57	0 - 10 - cm10	10 - 20	20 - 30	0 - 10 - cm10	10 - 40	40 - 50	50 - cm
Suazey Ceramics																
Body Sherds	19	6	20	6	6	10	8	36	24	3	2	8	4	4	6	
Bases	3	-	-	1	-	-	-	-	-	-	-	1	1	-	-	
Rims	6	3	3	1	1	2	5	3	3	-	-	1	-	1	2	
Legs	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Shell																
<i>Conch (Strombus gigas)</i>																
Whole	-	1	1	1	1	-	-	1	-	-	-	1	-	2	-	
Fragments	-	10	11	8	5	13	15	46	10	2	-	5	-	2	10	
Tools																
Celt	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
Hoe	-	-	-	-	-	-	3	2	-	-	-	-	-	-	-	
Fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
<i>Cittarium Pica</i>	-	-	-	-	-	1	1	9	3	3	-	2	-	-	2	
<i>Nerita</i>	-	-	2	-	1	1	-	6	1	-	-	-	-	-	-	
<i>Purpura patula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Conus</i> (bead)	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	1	2	3	1	-	-	-	-	-	-	

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Artifact Distribution	S1 W5				S1 W6				S1 W7				S2 W7	NO W8	
	0 - 10 - 10	10 - 20	20 - 30	30 - cm10	0 - 10 - 10	10 - 20	20 - 30	30 - 40	0 - 10 - cm10	10 - 20	20 - 30	30 - 40	10 - cm20	0 - cm10	cm
Suazey Ceramics															
Body Sherds	1	4	1		2	6	3	2	4	1	1	1	2	15	
Bases	-	-	-		-	-	-	-	-	-	-	-	-	-	
Rims	-	-	-		1	-	-	-	2	-	-	-	-	2	
Legs	-	-	-		-	-	-	-	-	-	-	-	-	-	
Shell															
<i>Conch (Strombus gigas)</i>															
Whole	-	1	-		-	-	-	-	1	-	-	-	-	-	
Fragments	-	3	1		-	2	-	1	-	5	-	-	3	12	
Tools															
Celt	-	-	-		-	-	-	-	-	-	-	-	-	-	
Hoe	-	-	-		-	-	-	-	-	-	-	-	-	-	
Fragments	-	-	-		-	-	-	-	-	-	-	-	-	-	
<i>Cittarium Pica</i>	-	1	-		-	-	-	-	1	2	-	-	-	-	
<i>Nerita</i>	-	1	-		-	-	-	-	-	-	-	-	-	-	
<i>Purpura patula</i>	-	-	-		-	-	-	-	-	-	-	-	-	-	
<i>Conus</i> (bead)	-	-	-		-	-	-	-	-	-	-	-	-	-	
Other	-	-	-		-	-	-	-	-	-	-	-	-	-	

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**TABLE
MAPPS CAVE**

Artifact Distribution	S1 W8				S1 W9				S2 W9			
	10 - 20 - 20	20 - 30	0 - 10 - cm	10 - 20	10 - 20 - 30	20 - 30 - 40	30 - 40 - 57	40 - 57	0 - 10 - cm	10 - 20	20 - 30	30 - 40 - cm
Suazey Ceramics												
Body Sherds	1	11	1	2	12	9	9	4	5	5		
Bases	1	2	-	-	-	1	-	-	-	-		
Rims	-	4	-	-	3	1	3	1	-	1		
Legs	-	-	-	-	-	-	-	-	-	-		
Shell												
<i>Conch (Strombus gigas)</i>												
Whole	-	3	-	-	3	4	2	3	1	1		
Fragments	-	1	1	3	9	4	3	3	1	1		
Tools												
Celt	-	-	-	-	-	-	-	-	-	-		
Hoe	-	-	-	-	-	-	-	1	-	-		
Fragments	-	-	-	-	-	-	2	-	-	-		
<i>Cittarium Pica</i>	-	1	-	-	2	-	1	1	-	-		
<i>Nerita</i>	1	-	-	-	-	-	-	-	-	-		
<i>Purpura patula</i>	-	1	-	-	1	-	-	-	-	-		
<i>Conus</i> (bead)	-	-	-	-	-	-	-	-	-	-		
Other	-	-	-	-	-	-	-	-	-	-		

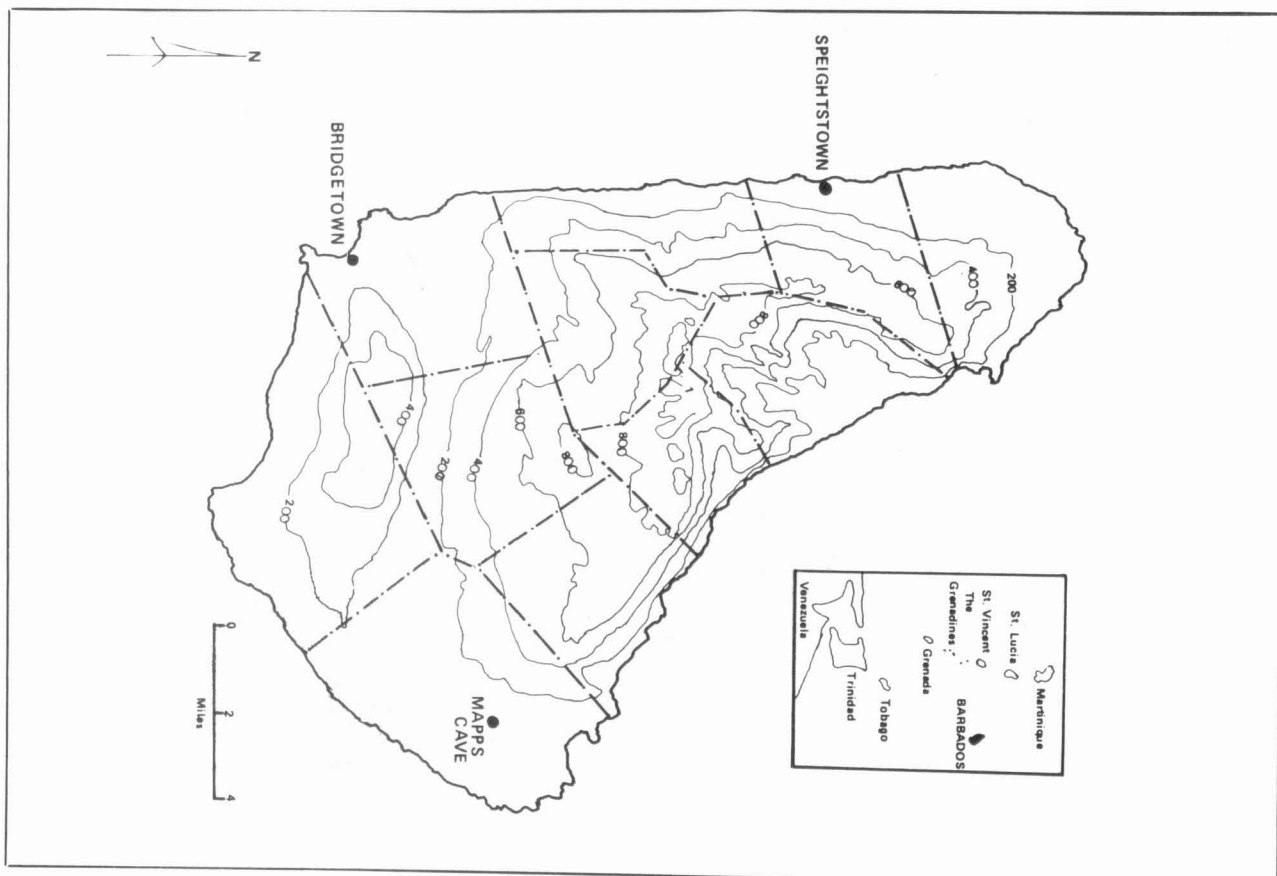


FIGURE 1
Barbados

FIGURE 2
Plan view of Mapps Cave: architectural details and excavated areas.

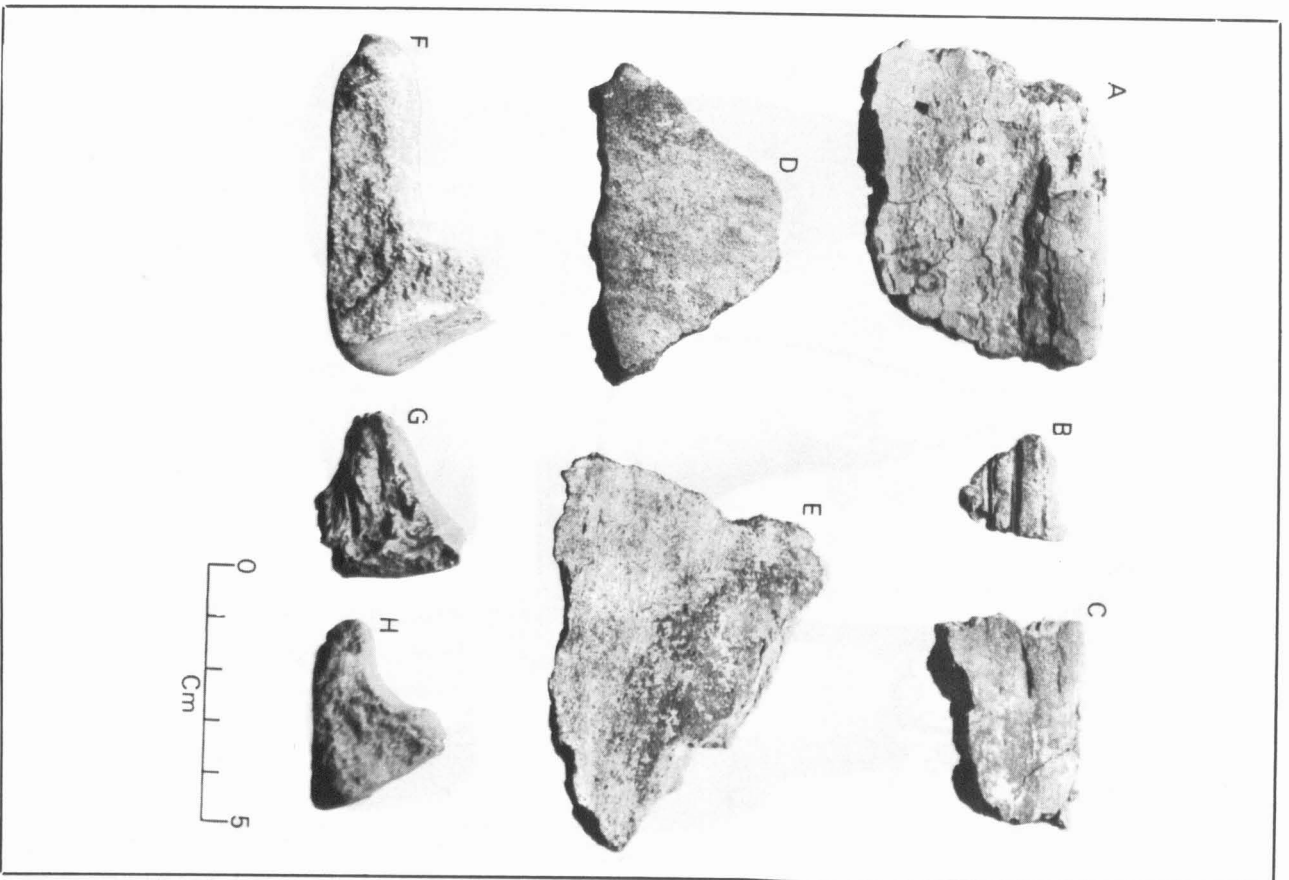
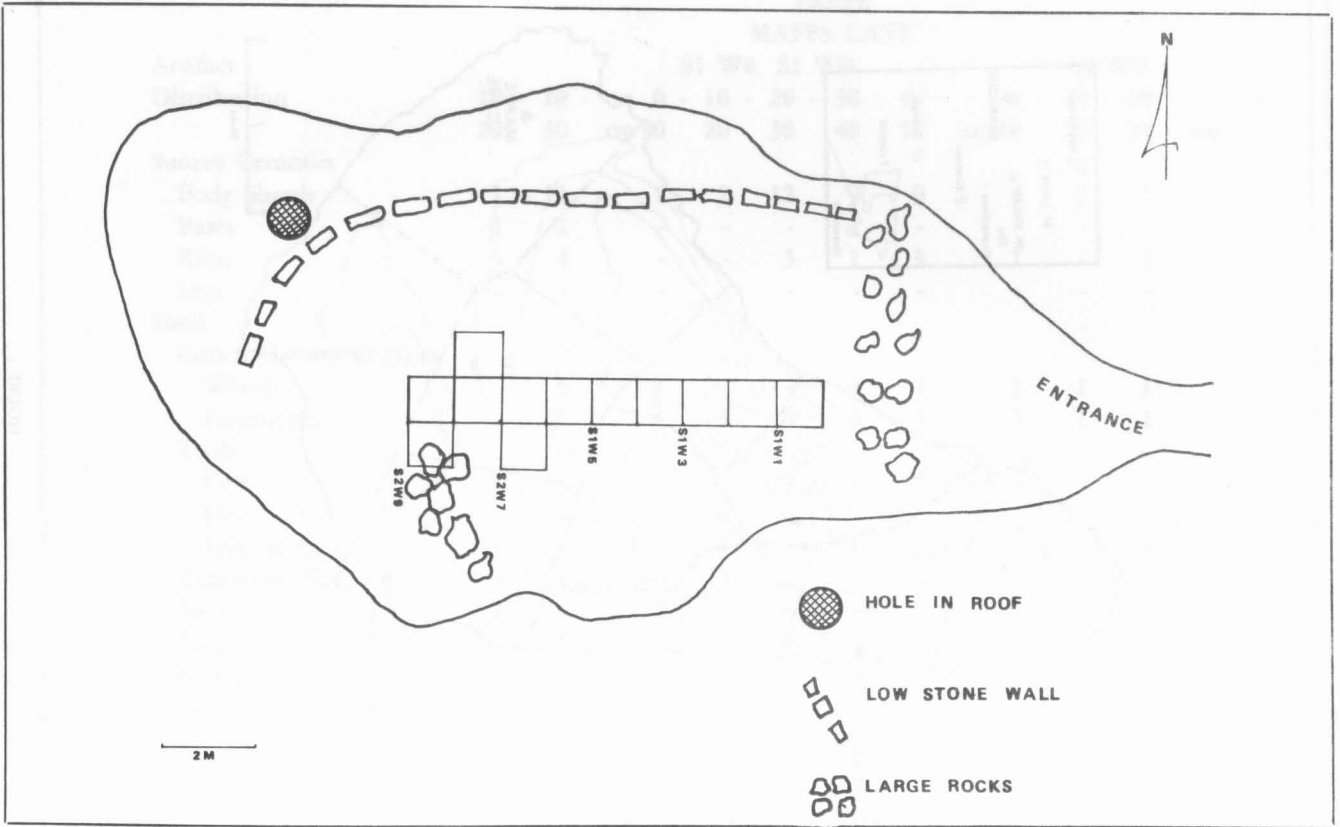


FIGURE 3
Suazy complex ceramics from Mapps Cave excavations.

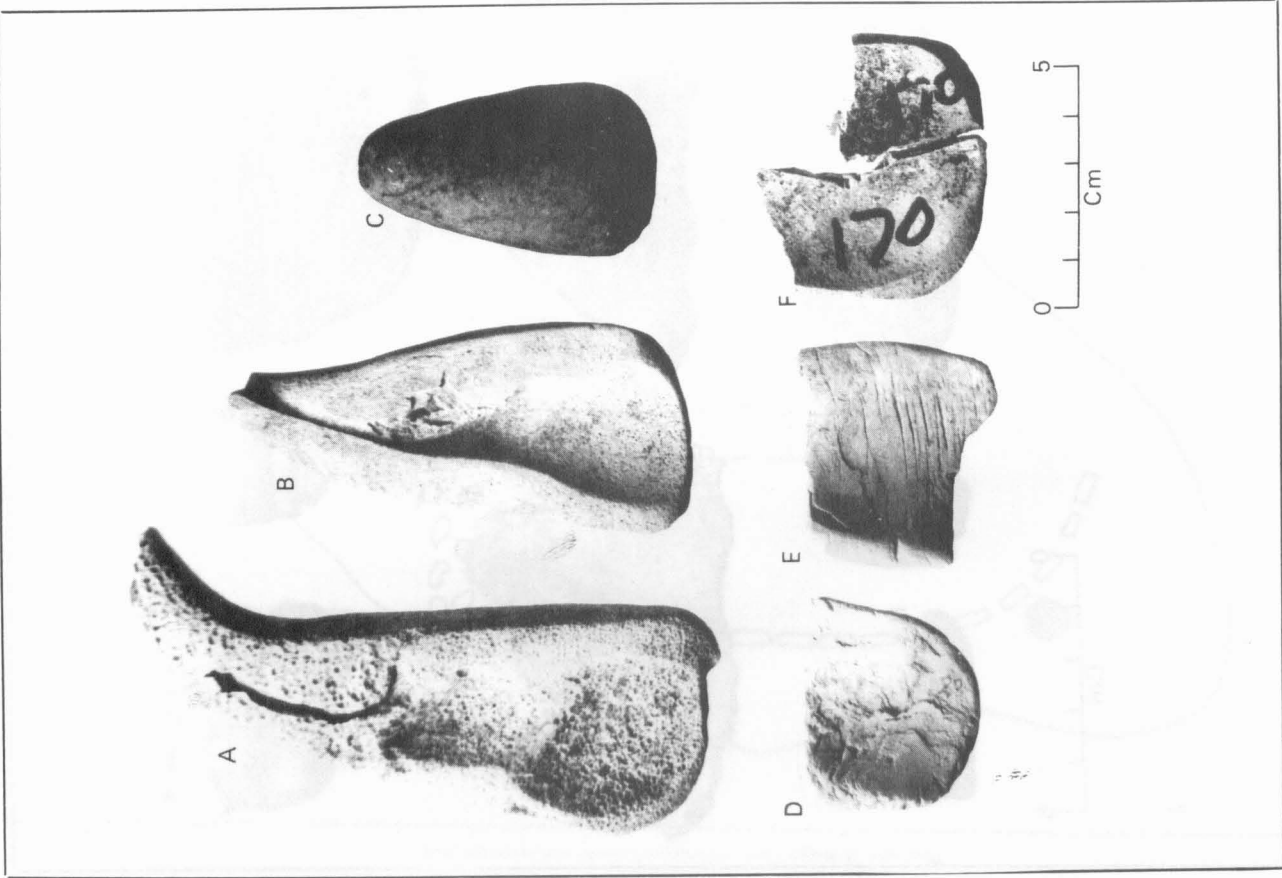


FIGURE 4
 Shell tools and implements from Mapps Cave excavations (A-B, D-F); C-ground stone celt; surface collection, Kendal Plantation (St. John's Parish).

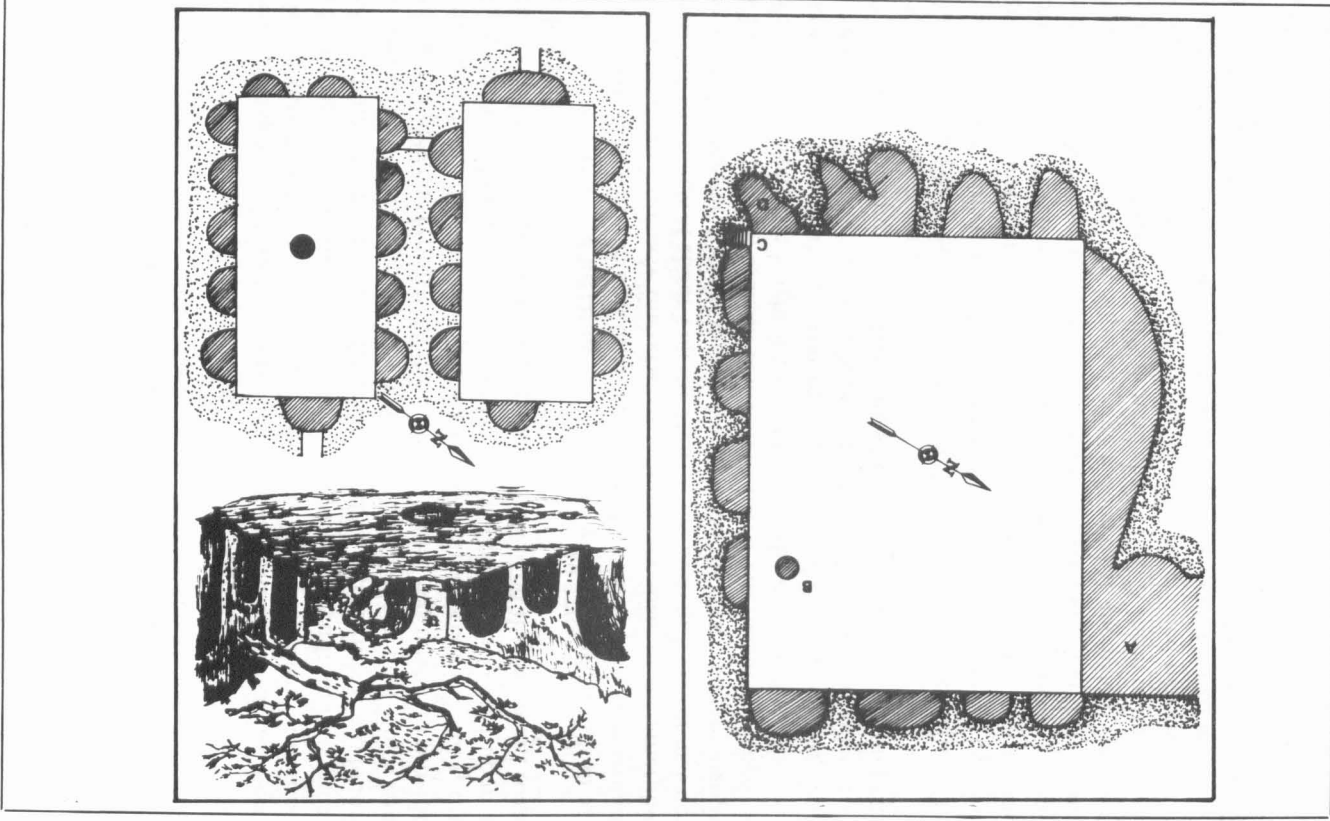


FIGURE 5
 a) Lemnon Grove Cave (A-entrance, B-well), re-drawn from Chester (1870); b) Mount Ararat Cave, re-drawn from Chester (1870).