PRECERAMIC CONNECTIONS BETWEEN THE CARIBBEAN AND THE YUCATÁN PENINSULA

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Abstract
Archaeologists have long noted the similarities between the lithic artifacts of the first colonists of the Greater Antilles and those of contemporary people of the western Yucatan peninsula. Recent archaeological work in northern Belize has provided additional archaeological information on the characteristics and dating of the mainland assemblages. Additional research by Cuban archaeologists has also contributed to a clearer picture of the circumstances surrounding the first human migration to the Greater Antilles. This new research makes it more likely that the first colonizers of the Greater Antilles came from western Yucatan.

Introduction
Ten years ago in the IACA Congress in Puerto Rico, Richard Callaghan reported on possible preceramic connections between Central America and the Greater Antilles (Callaghan 1990). He noted, as William Coe and others had (Coe 1957, Rouse 1960, 1992, Bullen 1976), the similarities between the lithic assemblages of Belize and the earliest archaeological assemblages (ca. 3500 - 2000 B.C.) in the Caribbean north of Trinidad — those from Cuba, Haiti and the Dominican Republic that Rouse (1992:55-62) has called Casimirian Casimiroid.

This paper provides an update to the possibility of a connection between Belize and the Greater Antilles. New data exist for the relevant time periods on both sides of the Yucatan channel (Fig. 1). The Archaic chronology for Belize has been considerably revised since 1985 and more work is being undertaken now. Researchers have also carried out additional work on the early material from the Caribbean (Moore 1991, Pantel 1988). This new evidence strengthens the likelihood that the first human colonizers of the Greater Antilles came from the Yucatan peninsula.

This paper will first review the changes that have been taking place in the Belize chronology, and in particular look at the recently excavated material from the site of Colha in Belize that is nearly contemporary with the lithic material from the Greater Antilles. The similarities in manufacture and morphology of the tools will be examined, and the implications for understanding more about the first colonizers will be discussed.
The Archaeological Sequence in Belize

Callaghan observed similarities between the Belize and Greater Antillean material based on the reports of the Belize Archaic Archaeological Reconnaissance (BAAR; MacNeish, Wilkerson, and Nelken-Terner 1980, MacNeish and Nelken-Terner 1983). The BAAR project was intended to produce a regional sequence of human occupation in the lowlands of Belize from Paleoindian times until the Early Pre-classic. Richard MacNeish was intrigued by the large number of pre-Maya surface finds from Belize, and hoped to provide a lowland study similar to his highland survey in the Tehuacan Valley (The Prehistory of the Tehuacan Valley, 5 vols., 1967-). Many aceramic sites were already known from Belize, and more were identified through the BAAR’s surface reconnaissance. Six sites were chosen for excavation. These excavations, directed by R. Zeitlin and J. Zeitlin, produced an multiphase archaeological sequence spanning from 9000 to 2000 B.C. Datable material was very poorly preserved in the excavated sites, however, so cross-dating was used to tentatively align their local relative chronology with absolute chronologies from the Mesoamerican highlands or even farther afield (Macneish and Nelken-Terner 1983, Zeitlin and Zeitlin, in press). The dates they associated with the complexes were provisional.

The BAAR Chronology did not correlate very will with the more extensive radiocarbon chronology from the caribbean (Table 1). At the time, the earliest radiocarbon date from the caribbean was 3190+170 B.C., from the site of Levisa (Moore’s 1991 date of 3630+80 B.C. from the Haitian site of Vignier III is now the earliest; Table 1). This left a gap of over 1800 years between the end of the somewhat similar Orange Walk complex in Belize (6000-5000 B.C.) and the earliest dates of the caribbean/Mordan occupations. And there was a greater chronological discrepancy with the lithic complex that seemed to have even closer similarities to those of the Greater Antilles. This complex — termed Sand Hill — had a suggested terminal date of 6000 B.C.

In recent years, both the tentative archaeological sequence of complexes and the associated chronology proposed by the Belize Archaic Archaeological Reconnaissance have been called into question (Kelly 1994). New excavations and radiocarbon dates, along with supporting archeobotanical work (Jacob 1991, Jones 1994) have changed the picture of the Belizian preceramic considerably, particularly those aspects of the chronology which are relevant for understanding the Greater Antillean material.

Excavations at the site of colha, a Mayan site in northern Belize, have shed a good deal of light on these chronological problems. The colha project is directed by Thomas Hester, Univ. of Texas, Austin, Harry Shafer, Texas A & M, and others. In testing areas outside of the central zones of Maya architecture, archaeologists from the colha project discovered preceramic occupations beneath the Maya strata. Further explorations revealed two Preceramic components. The earlier component is dated to approximately 3500-2000 B.C. and the later to around 1500-900 B.C. (Word 1990; Hudler, Hester, and Iceland n.d., Hester n.d.). The earlier component contains what is possibly an in situ lithic production locale, with large macroblades, nodular cores, prepared blade cores, and smaller blade cores. The early assemblages from both components include chert blades, including the large macroblades reminiscent of the early material from Seboruco, Levisa, Mordan, Vignier, and elsewhere (Fig. 2).

In the later preceramic component at colha there were constricted unifaces (called “snowshoe” or “sole-shaped” unifaces in the BAAR reports) which MacNeish et al. had considered diagnostic of the early Archaic Sand Hill complex (and which as noted above had been tentatively dated to 7500-6000 B.C.). They are also apparent in other phases in the BAAR sequence (Macneish and Nelken-Terner 1983). Mary Pohl has reported a similar tool from Pulltrouser Swamp in Belize, dated to about 1300-1000 B.C., and another tool based on a macroblade dated to about 2500-2000 B.C. (Bower 1994: 279).

This new research on the preceramic at colha is still in a preliminary stage; work is continuing to locate more of the preceramic occupation at colha, and similar contexts elsewhere. The complete analysis of the lithics and other artifacts is in process now. The preliminary results have some implications that are important for examining the caribbean connection: further problems are raised with the chronology and artifact typologies proposed by the BAAR.

The BAAR typology and chronology were first approximations subject to modification, so the difficulty in correlating of the caribbean material with the Belizian Sand Hill complex is no longer an issue. In fact, with the colha excavations, the chronologies of the early blade/macroblade assemblages from the caribbean and Belize now correspond very well — people were producing very comparable macroblades and blades in Belize at about the same time and in the same way as were the people who moved into the Greater Antilles.

The recent research at colha raises another very interesting possibility concerning their economy and lifeways. Paleobotanical work done in cobweb swamp, adjacent to the site, has produced evidence that the preceramic people at colha were cultivating Maize (Zea mays) and possibly Manioc (Manihot esculentum) as early as 2500 B.C., and later were growing chilies and cotton (Jones 1994). Very little is known of the overall economy of and adaptation patterns of the first caribbean colonists. Moving into such a rich and uninhabited environment as the uncontacted top predators probably made horticulture unnecessary. It should be a priority to excavate some of these sites, perhaps those recently reported by Moore (1991) to learn more about how they lived.

Comparison of the lithic assemblages from Belize and the Antilles:

How similar are the assemblages from Belize and the caribbean, and might their similarity be coincidental? Large macroblade tools are found in several places throughout the Americas, and date to many time periods. As Pantel (1988) and others point out, it is more important to analyze the manufacturing process of the lithic pieces than merely to study their shapes (see also Kozlowski 1974, Rouxe 1986, Veloz Maggiolo 1976, Veloz Maggiolo and Vega 1982). In comparing the Belize and Caribbean assemblages, I am paying Particular attention to the earliest assemblages, for example the lower levels at Levisa I in Cuba, where blades make up a large part of the assemblages.

In the earlier preceramic component at Colha, people were testing nodules and removing cortex to produce large macroblade cores from the best (Hudler, Hester, and Iceland n.d.). smaller nodules and perhaps some macroblades were used as blade and flake cores. The large nodular cores produced macroblades that are similar to those found by the BAAR and the Colha Regional survey at the Sand Hill quarry, 30 km to the south. The reduction sequence in the earlier component at Colha seems directed towards producing unifacial macroblade tools and perhaps some bifaces. Smaller prepared cores were also used to make blades. Hudler’s preliminary microwear analysis of the Colha tools suggests that they were probably multifunctional, being used for woodworking and some digging.

In the Greater Antilles, makers of the earliest macroblade tools chose the highest quality chert sources in eastern Cuba, Haiti, and the Dominican Republic. As Pantel (1988:161-179) observes, their lithic reductionprocess involved preparing cores by removing the cortex, striking blades and macroblades from the cores using percussion on perpendicular striking platforms, and finishing the tools with minimal secondary, usually unifacial, flaking. This corresponds to Kozlowski’s (1974:40) observation of the use of flat, single-platform blade cores with little preparation of the striking platforms.

The earliest stone tool assemblage in the Caribbean was one of general-purpose tools, many based on blades and macroblades.
As Pantel suggests (1988:177), the rich island environments did not demand a high degree of specialization in tool production. In time, as the Levisa I stratigraphic sequence demonstrates (Kozlowski 1974:42), blade tools were gradually supplanted with tools based on flakes (Fig. 3). Kozlowski uses this transformation in a mortel of technological change in which «the [Seboruco-Mordán culture] appeared in the caribbean in a highly developed form and it is only in the isolated conditions of the islands that the technique of manufacturing flakes and blades underwent a degeneration, manifested by the replacement of blades with flakes» (Kozlowski 1974:42).

Rouse (1992:58, cruxent and Rouse 1969) sees this evolutionary change the other way around, with blade production being a later elaboration by the people making Courian Casimiroid subseries artifacts in the Dominican Republic and Haiti after 2000 B.C. (the related subseries is Redondan casimiroid in cuba). After a period of use, in this view, blade tools declined in importance (Rouse 1992:61), certainly large, unifacially and sometimes bifacially worked macroblades appear in the courian casimiroid sites. It may be that artifacts which could be seen as more formal tools, such as «courii points» and large unifacially worked knives, may have been made on the macroblades (see Kozlowski 1974: Table IX). However, the evidence for blade and macroblade production at the earliest casimiran and Seboruco sites seems persuasive (callaghan1990, Kozlowski 1974, Moore 1991, Veloz Maggiolo 1976). And as Pantel (1991:161) notes, there is no evidence of a technological change in lithic reduction patterns from earlier to later sites.

There is another, more speculative, comparison that can be made between the Belize and Greater Antillean assemblages. At the time when the Greater Antilles were colonized — 3500-2500 B.C., or so — neither the people in Belize nor those in the Greater Antilles were making ground stone objects. By around 2000 B.C., however, they were making them, and in similar ways. Stone bowls, made by pecking and grinding, came into use in both places (MacNeil et al., 1983:51, place their appearance earlier). Both groups went on participate in the development of some of the most elaborated stoneworking traditions in the Americas, those of the Maya and Taino.

I suspect that both stone working traditions grew out of making bowls and similar artifacts from wood; in cases of exceptional preservation, some of the wood artifacts survive (Harrington 1921). Another intriguing bit of evidence for the Central American origins of the preceramic people in the Caribbean comes from Cranberry’s examination of Ciguayo, the language of people living in northeastern Hispaniola in 1492. On admittedly slim evidence, he concludes «... that Ciguayo was the last surviving remnant of a much earlier and more widespread Antillean Hokan language, having its origins somewhere along the coast of the Gulf of Honduras, its closest relative being Proto-Toltec» (Cranberry 1991:517-518). He feels it was a remnant of the language spoken by the earliest colonists from the Central American coast.

He figured in modern winds and ocean currents and simulated the voyages of rafts and canoes assuming that they 1) were allowed to drift, 2) had sails, and 3) were paddled.

In the experiment assuming that the water craft were paddled, he felt the northern coast of south America was most probable, but concluded that, «(although) rafts had very limited possibilities of success in this experiment, the canoes had high possibilities from all three regions considered [Venezuela/Colombia, the Eastern Gulf, and Northern Central America]» (Callaghan 1991:66).

Finally, archaeological research over the last few decades has not produced strong alternatives to Yucatan peninsula as a source for the first colonizing population. Observations have been made about artifact complexes with similarities (e.g. Las Casitas and Canaima in Venezuela; complexes from Catrú in Colombia; El Inga in Ecuador; the Joboid assemblages from south America; and the early arcaical unifacial adzes of north Florida (Gerrell, scarry, and Dunbar 1991)). All of these can not be reviewed here, but in each case there are problems with the comparability of the lithic technologies, large chronological discrepancies, and/or lack of geographically intermediate assemblages. Detailed comparisons of the artifact assemblages need to be done with these, but with all of them, as with the Belize societies, more work is needed on the non-lithic aspects of their archaeological remains — especially inter- and intra-site settlement patterns, economic adaptation, etc.

Conclusion

For some time now, a good case has existed for Belize being the source of the early lithic cultures of the Caribbean. The new research from the site of Colha in northern Belize makes this case even stronger, and clarifies problematic aspects of the earlier picture by improving the Belize chronology and providing details about the lithic manufacturing patterns, and other aspects of the probable source populations.

References cited


Other Routes of Migration

Concerning other possible sources of the Casimiroid population, research over the past decades has net produced strong alternatives to the route from the Yucatan to cuba. A great deal of archaeological research has been carried out in the Lesser Antilles, and archaeological deposits similar to the earliest from the western Greater Antilles have net been found. The migration route from the east, through the Lesser Antilles, appears less likely as a source of the early colonists. Also, despite careful reconnaissance, archaeologists have not found evidence that people used other proposed migration routes, such as through Grand Caymans (investigated by Davis, drance, and Keegan) or along the mid-Caribbean island chain between Nicaragua and Jamaica. However with Holocene sea-level rise, and the probable subsidence of the mid-Caribbean ridge, the evidence for temporary settlements along the route from Nicaragua and Honduras, trending northeast toward Jamaica, would now be submergea.

Callaghan (1991) undertook a computer simulation study of this problem, looking for the most and least likely routes for trips from the mainland to the Greater Antilles.
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Figure 3. Percentages of Blades and Flakes from Levisa 1

Figure 2: Artifacts from Levisa and Belize

Artifacts from Belize, Sand Hill complex (after MacNeil et al. 1983)

Artifacts from Levisa, Level V (after Keel 1974, Fig. 16)