Barbuda Historical Ecology Project 2009

Findings From SV13

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Intro

During the 2009 field season, a systematic survey of the area surrounding Seaview was conducted in order to begin collecting data for phosphate mapping on Barbuda. While on survey, an area assigned as SV13(Code assigned during phosphate survey), was found to have a high density of fractured mollusks, ceramics, shell beads, lithics, worked stone, worked coral, and coral zemis indicating an active prehistoric Amerindian presence. The site was initially exposed by a local Mission Church looking for potential well water sources, and was temporarily abandoned for the season. This disturbed feature located within a barren fossilized coral landscape is a depressed 2 x 4 meter sinkhole. The site's disturbance and impending future destruction reinforced the urgency for rescue archaeology of SV13. Preliminary data has been collected on the material recovered from SV13, some of which is presented in this early report.

Landscape and Background

There are two prehistoric Amerindian sites located within proximity to SV13. Seaview (BA16), an early ceramic age Saladoid site, lies along the coast of Two Foot Bay surrounded by a rich but treacherous reef system. Indian Town Trail (BA1), is a Post-Saladoid site situated approximately 600 meters inland from Seaview at the base of a large limestone outcrop that stretches along the Western coastline. Positioned Northwest of both Seaview and Indian Town Trail is an area of exposed fossilized coral outcrop with a number of scattered sink holes, mostly filled in by sediment. Several fresh water sinkholes scattered about the landscape are used today to hydrate crops, sheep, goats, and horses. It is common for sinkholes in this region to open and close rapidly, and as result active sinkholes used by local farmers, have built wooden frames in order to stabilize them. From the location of SV13, neither Seaview or Indian Town can be directly sited, although current vegetation may be the biggest factor. The open sea is visible to the north facing a rich reef system.

Fig 1 – Map showing the locations of Seavew (BA16), Indian Town Trail (BA1), and SV13

Excavation

The sinkhole itself is approximately 2x4 meters with an unknown depth. SV13 was first identified by the spoil heap left by the mission church in an attempt to explore the potential for fresh water. Sectioning of the spoil heap revealed no discernable stratigraphic layers. This material was taken out during the first two days of excavation and sifted. One coral zemi, along with a few fragments of shell and ceramics were recovered from the spoil. Once the spoil heap was removed and sifted we were able to identify two stratigraphic layers, A and B. Both layers contained sediment that was sandy clay. The majority of cultural material was recovered from Layer A, while Layer B contained rare fragments of shell and some fossilized shells. Due to time constraints, the remainder of the area was covered with large stones and backfilled.

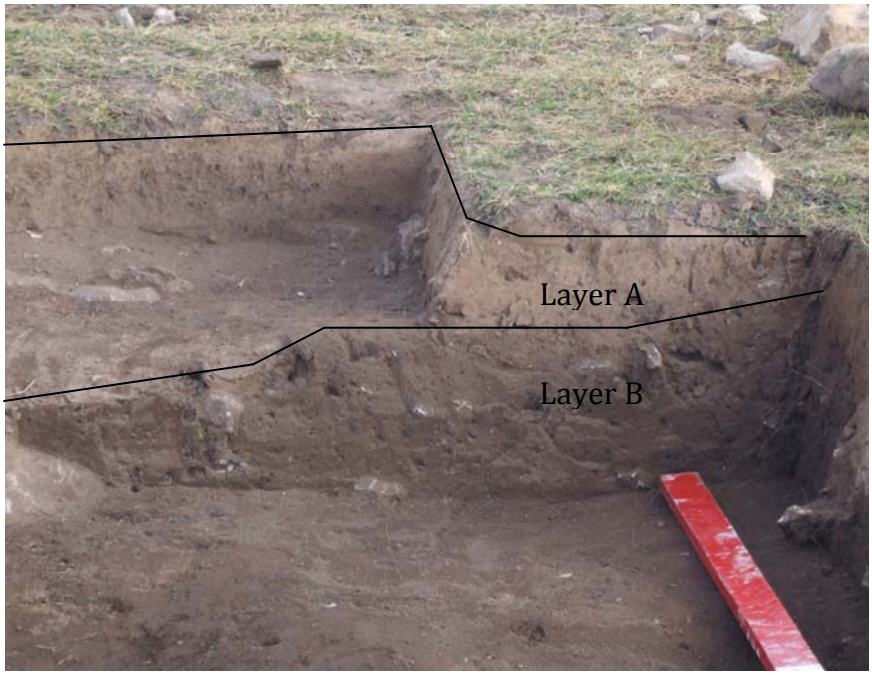


Fig 2 – Southeast profile of excavated sinkhole, SV13

Discussion of Data

Faunal

The majority of faunal recovered from SV13 consisted of crab and mollusks. While mollusks constituted over 82% of the material recovered, the majority were fragmented. Numerous pieces of shell have been worked and polished. Complete shells, except for holes created by food extraction, were rare on site. 95% of the crab remains are claws. One fish vertebrate represented all the fish remains present. It should be noted that this particular fish vertebrate has a natural perforation through its center. The lack of fish bones is significant

as both Saladoid and Post-Saladoid middens have high frequent fish bones present. Based on the context of this site, the fish vertebrate recovered may have served as raw material for bead production.

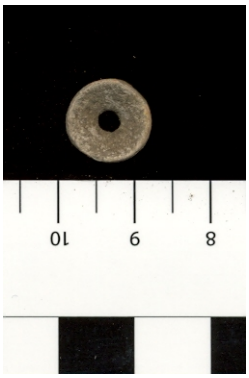


Fig 3 – Fish Vertebrate

Worked Shell

While mollusks are a significant component of the Amerindian diet as well, there is moderate evidence of worked shell found within SV13. Significant fragmentation is consistent with experimental studies of Strombus gigas shell strategically broken in order to create pre-forms for both tools and artifacts. Similar patterns of shell debitage are seen (Table 2, Graphs 2 & 3), although future analysis of middens excavated from both Seaview and Indian Town Trail should provide better insight as to how these ratios may differ. While mollusks showing evidence of food extraction is rare, when these perforated shells are present, they have additionally modified.

Fig 4 – Worked shell spoons. Far right is a perform, center is a final product, left is possible discard or error piece

Fig 5 – Shell bead blanks

Fig 6 – Shell braider

Fig 7 – Sample of the variety of possible bead blanks present with one broken bead in the center

There is a wide diversity of worked shell(see figures 4-8). Evidence of shell tool production is evident, from shell adzes to refined spoons made from the body whorl of Strombus gigas(see figure 4). There is a number of tinkler and bead blanks prepared from *Oliva sp* (fig 7). One shell fragment in particular showed signs of very fine wear, with small notches carved at even intervals. The function as of yet is unknown (fig. 6).

Coral

Fig 8 – Sample of the variety of coral abraiders present at SV13

Large quantities of coral have been brought to the area of SV13. 50 coral braiders and 90 pieces of coral showing signs of wear and use (fig 13-15). As for the braiders, there is significant variation in both the size of the pieces being used as well as the wear patterns (fig 8 & 9). These cylindrical pieces of coral exhibit three grades of wear: those worn on all sides, those showing wear on one side, and those with no signs of wear. The most common type present is Acropora cervicornis. This species occurs well below the water surface, but not at depths greater than 10 m. While this species naturally exist as branches, no intact branch has been found on site. A number of Acropora cervicornis have one broken end and one end exhibiting thorough wear. Does this variety offer

Fig 9 – Coral pieces showing significant wear

varying degrees of abrasion potential? Is this equivalent to having fine to coarse grain sandpaper? One piece of coral had a peculiar wear pattern on it, similar in shape to these coral braiders (fig 13). Large ovular worked coral pieces are abundant as well. Many show moderate wear, and a number of them may have been broken off during use (fig 15).

In addition to tools, coral also served as raw material for making zemis (fig 10 & 11). The two zemis found were made of coral, while one remained unfinished.

Fig 10 – Unfinished Coral Zemi

Fig 11 – Finished Coral Zemi

Lithics

Fig 12 – Stones exhibiting polish. Center and right are pink limestone.

Three microblades of Long Island flint, a cuboid piece of carnelian, and a few polished stones were recovered during excavation. Additional stones are present in the assemblage, but require further analysis in order to assess there makeup. While present, lithics are not the predominate resource present for tool usage.

Ceramics

83 fragments of ceramics were recovered as well. It should be noted that only 3 rim fragments were recovered (each different) and no bases. All pottery shards recovered were 5< cm and showed significant signs of weathering. The pottery shards present do not show signs of painting or grooves.

Phosphates

Two core samples were taken from SV13 for qualitative phosphate analysis. One was taken directly in the center of the sinkhole and the second was taken on the outer edges. Both samples tested negative for phosphates. This evidence indicates that little organic material was deposited in this depression and that the site was not used for long term occupation.

Discussion

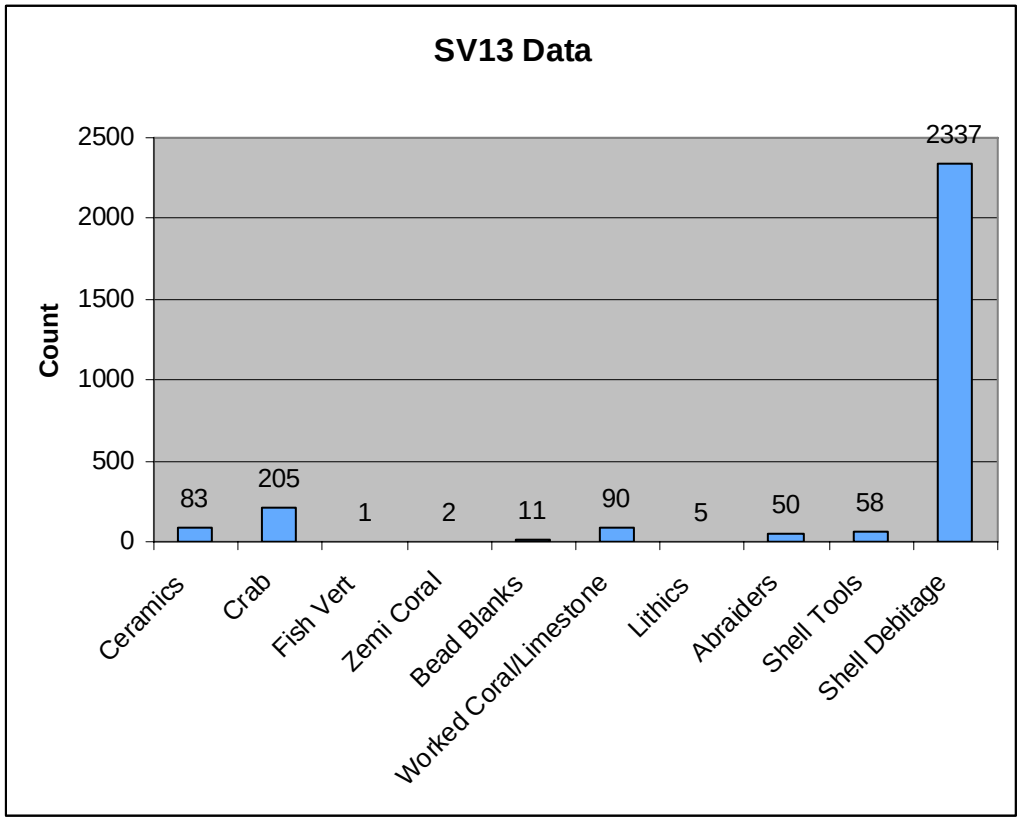
Based on preliminary evidence, SV13 appears to be a small multi-purpose work site producing everything from beads and zemis, to shell spoons and scoops. The difficulty in interpreting the disturbed context is compounded by the absence of typologic ceramics. Samples of West Indian Top Shell were collected at the bottom of layer A for future C14 dates. We suspected that this area had been used during the prehistoric ceramic age on Barbuda due to the presence of freshwater sinkholes, although no evidence had been found associating either Seaview or Indian Town Trail with these resources. Survey of the immediate area showed no sign of cultural material present on the surface.

Site ID	Artifact ID	Type	Material	Count
SV13	0172009	Abraiders	Coral	1
SV13	0152009	Abraiders	Coral	11
SV13	0182009	Abraiders	Coral	15
SV13	0162009	Abraiders	Coral	23
SV13	0032009	Bead Blank	Shell	1
SV13	0042009	Bead Blank	Shell	1
SV13	0022009	Blanks	Shell	7
SV13	0052009	Broken Bead	Shell	1
SV13	0092009	Ceramics	Clay	1
SV13	0102009	Ceramics	Clay	1
SV13	0082009	Ceramics	Clay	6
SV13	0262009	Ceramics	Clay	75
SV13	0232009	Conch Axes	Shell	3
SV13	0212009	Crab	Crab	215
SV13	0142009	Fish Vertebrate	Bone	1
SV13	0122009	Lithic	LI Flint	1
SV13	0132009	Lithic	Carnelian	1
SV13	0062009	Polishing Stone	Stone	4
SV13	0222009	Scoops	Shell	55
SV13	0202009	Shell Fragments	Shell	1070
SV13	0192009	Shell Fragments	Shell	1267
SV13	0112009	Worked Shell	Shell	1
SV13	0242009	Worked Shell	Shell	15
SV13	0252009	Worked Coral	Coral	90
SV13	0012009	Zemi	Pumice/Coral	1
SV13	0072009	Zemi	Pumice/Coral	1

Table 1 – Preliminary list of material from SV13

Function	Type	Count	Notes
Habitation	Ceramics	83	
Food	Crab	205	195 crab claws 10 non claw
Food	Fish Vert	1	
Product	Zemi Coral	2	
Product	Bead Blanks	11	Includes 112009
Tool	Worked Coral/Limestone	90	
Tool	Lithics	5	Includes Raw Carnelian
Tool	Abraiders	50	
Tool	Shell Tools	58	Includes Axes and Scoops
Tool	Shell Debitage	2337	

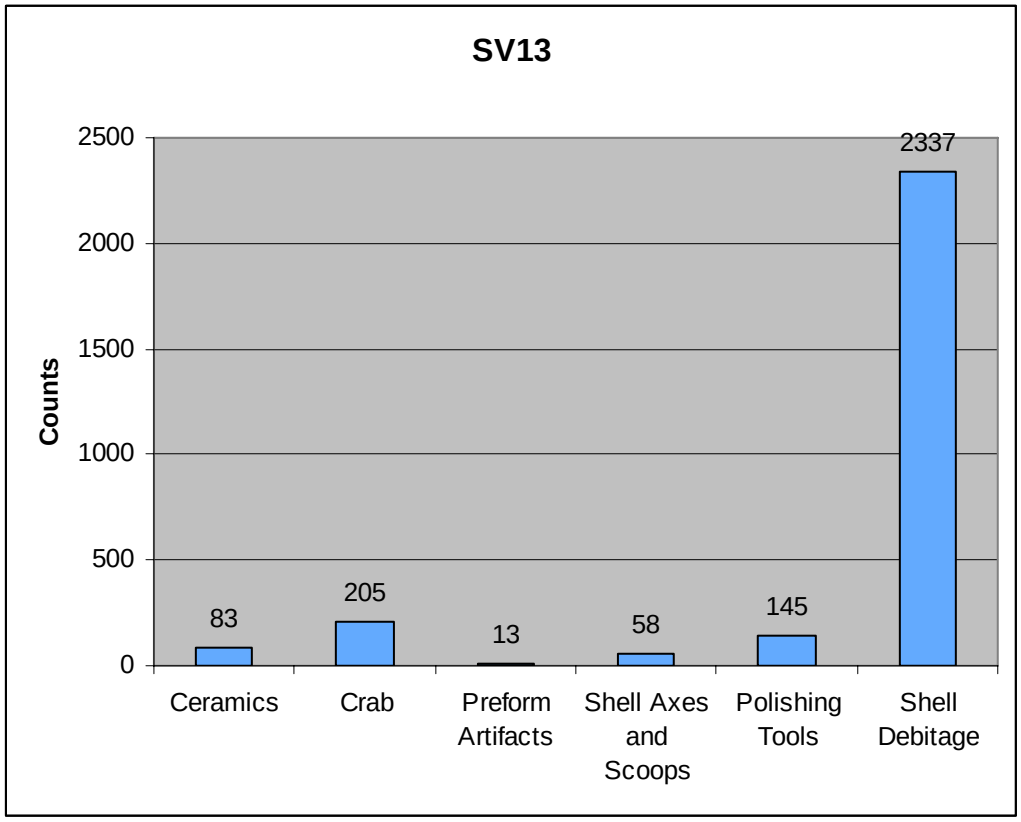
Table 2 – Preliminary counts ordered according to possible function



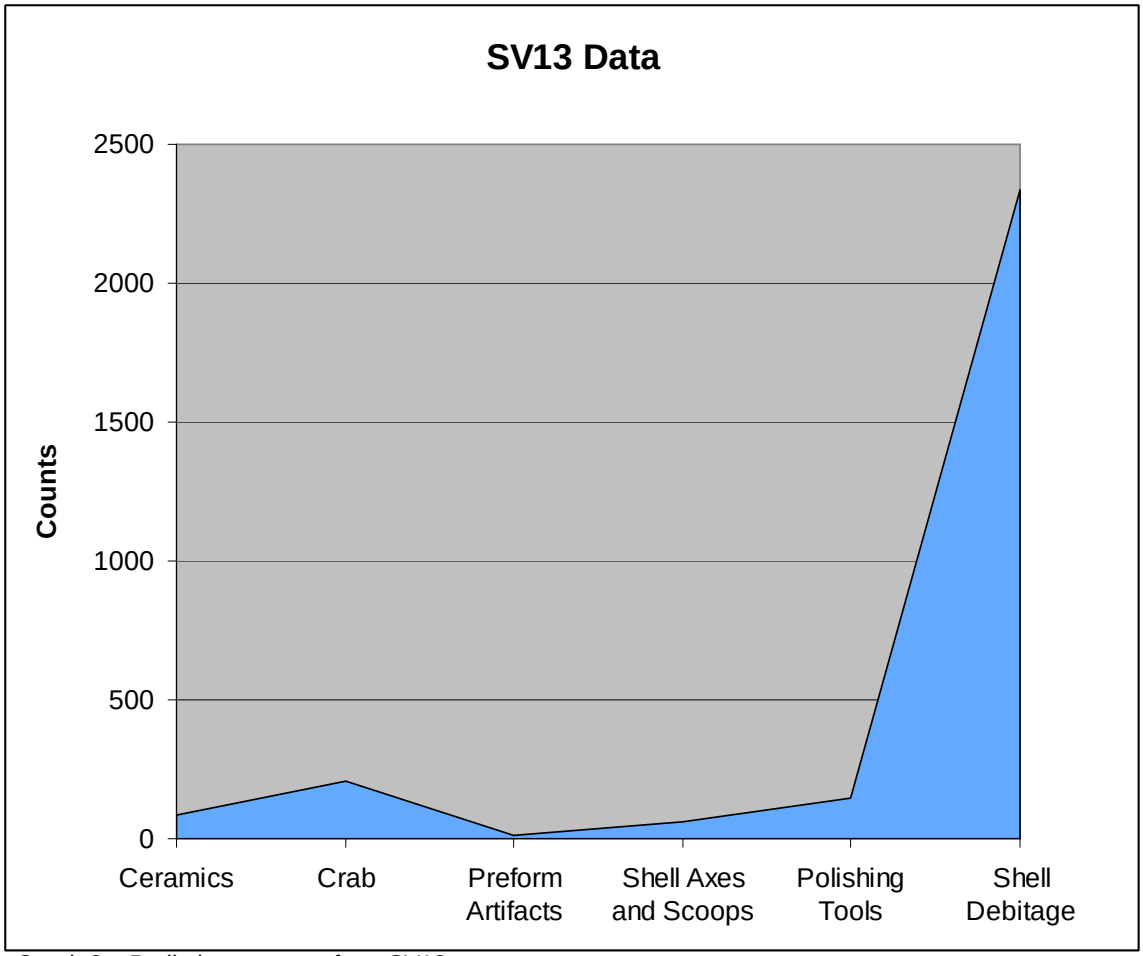
Graph 1 - Preliminary counts on materials recovered from SV13

Type	Count	Notes
Ceramics	83	
Crab	205	
Preform Artifacts	13	includes unfinished zemis, shell blanks and possible fish bead blank
Shell Axes and Scoops	58	Includes Axes and Scoops
Polishing Tools	145	
Shell Debitage	2337	

Table 3 – Material grouped together by type



Graph 2 – Preliminary counts from SV13



Graph 3 – Preliminary counts from SV13

Appendix A

Fig 13 – Coral exhibiting wear with worn coral abraider

Fig 14 – Worn Coral fragments exhibiting zoomorphic

Fig 15 – Variety of worked coral present at SV13