The Caves of Barbuda's Eastern Coast: Long term occupation, ethnohistory and ritual

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Abstract

Barbuda is the sister island to Antigua, located in the Lesser Antilles, West Indies. This island belongs to the Miocene arch of the Lesser Antilles, along with Grande Terre of Guadeloupe, Marie Galante, and Anguilla. Barbuda, notwithstanding its small size and low elevation, has an exceptionally rich past. Recent investigations by a Brooklyn College, City University of New York led team, has discovered evidence of human activity in and around these caves from the Archaic Period down to the present day. The range of activity at these caves begins with scatters of Archaic lithics, through artifacts and faunal material possibly produced by Obeah rituals to the contemporary celebrations and feasting activities that take place within and around these caves to this day. These contemporary cave based activities are central to the Barbudan people's relationship to their land and follow in the footsteps of the many waves of peoples that have called this island home for thousands of years. The idea of living from the land is celebrated many times a year through gatherings at the caves in which the food served has both African and Amerindian origins. Barbudans continue a long-term tradition of cave usage as shelter and feasting places where the food is cooked and shared and the only food consumed is what can be hunted and/or gathered from the wild. This tradition has been kept alive in the face of westernization and the threat of modernization. The caves of Barbuda offer a powerful example of changing human activities in one specific place through a truly longitudinal perspective.

Introduction

Investigations over the last five years by Brooklyn College (City University of New York) have been shedding light on the complex history of each culture that has inhabited Barbuda(Perdikaris 2010; Bain et al. 2010; Faucher, Guay, and Bain 2011; Hambrecht and Feeley 2010; Hambrecht et al. 2011; Hambrecht and Look 2009; Pedikaris 2009; Perdikaris 2010; Perdikaris 2011). Of central concern is investigating the dynamics between culture and natural systems in this low-lying limestone island in the Leewards. During the 2010 field season, one of the objectives was to better understand the cave complexes that are found along the eastern/Atlantic side of Barbuda's coast and are remnants of the last interglacial shoreline. Caves have long served humans as areas of habitation, shelter and ritual. In areas with massive hurricanes, piracy, slavery and insecurity, these caves served as safe havens against hazards, both human and climatic. They hold a central place in local folklore and provide a powerful forum for heritage preservation by hosting rituals that connect to ancestral lifeways. Barbuda has a series of caves both inland and along the coast. The coastal caves that are central to the current discussion are all part of an escarpment that starts around the Castle Hill area (Figure 1. Map of Barbuda with location of the Caves and other sites) and then gradually rises up to about 100 feet above sea level.

Figure 1. Map of Barbuda Site Areas

The Castle Hill Bay area occupies a transition zone between the low lying south west of Barbuda and the Highland zone to the NW. It also provides a boundary between the Atlantic seacoast, with its

extensive reefs, shifting sand beaches, mangrove bordered lagoons, backwater seeps and seasonal pockets of freshwater along with the Hog Hole fresh water spring and the dry forest of the interior of the island. The limestone caves and the plateau above also act to trap fresh water during the rainy season, which seeps through several of the cave ceilings to form small stalactites regularly visited by birds seeking moisture. The entire ridge stretching over 7 miles to the north of Castle Hill Bay is full of caves of various sizes of which 20 were surveyed during January 2010. Only one cave, Cave 2 from the Nicey Complex, was excavated that season. A test pit was excavated in the mouth of the cave. An interior niche was excavated and there was also a surface collection of artifacts and ecofacts from the entire cave floor. The Castle Hill Cave and the Indian Cave at Two Foot bay were mapped and photographed. All caves were cored and samples were collected for phosphate testing (McGovern et al 2010).

The Castle Hill Bay caves are near the ocean with the southern-most being the furthest from the water and the northern-most the closest. Throughout the escarpment, fresh water resources are plentiful and in close proximity. Most of the caves show usage at various time periods at the surface. Some of the caves have collapsed while others are used extensively by feral donkeys and sheep whose trampling makes some of the earlier occupation markers harder to identify and require more extensive remote sensing. In future seasons, we will continue investigating the caves and perform extensive coring and testing to better understand their human use through time. The focus for the January 2010 field season was the complex of caves and shelters around the Castle Hill, Pigeon Cliff, Hog Hole and Two Foot Bay areas. Systematic survey and collection of surface finds was conducted for the three caves that are discussed in this paper (McGovern et al 2010). All surface finds were located by GPS and extensive photographic documentation and mapping of the interior and exterior of the caves was carried out. This survey was followed by more intensive soil coring and systematic collection combined with the stratigraphic excavation with 100% 3 mm mesh sieving of a single 2X2 test pit outside of Cave 2. These investigations documented prehistoric, Archaic, Ceramic Age, Historic, and recent 20th-21st century occupation, including a small shell midden of apparent Saladoid date AD 400-600 (McGovern et al 2010). Only the historic and modern time period finds will be discussed in this paper.

Castle Hill Cave

The Castle Hill Cave is a focus of contemporary feasting, hunting and gathering. It is the largest of the caves that are being used for these purposes by modern Barbudans. It is only when this cave reaches full capacity that the rest of the caves further north on the escarpment are occupied. All cave dwelling is on a first come first served basis. The spatial organization of these caves is quite intriguing and they all seem to have separate areas to represent the functions taking place during the events that the locals call "living from the land". Living from the land can be simple hunting parties that use the caves for shelter, dressing and cooking game meat over the course of a weekend or single individuals enjoying peace and tranquility who want to take time away camping and eating things they can collect or hunt. It can also mean entire families using time in the caves to connect with each other and friends, having communal meals, playing dominos or cards and exchanging stories. During the living from the land outings, all the protein cooked is either hunted or collected. A popular time in the year for those camping activities is around Easter and during late May/ early June when the hermit crabs migrate to the water to lay their eggs. The hermit crab roe is used for making fungi, a local dish with African roots. Castle Hill is similar in layout to two other caves that are used for "living from the land" today. It contains a central dwelling area with sleeping platforms. Two tables are placed at the front of the sleeping platform. One is for the food service and underneath there is charcoal storage. A second table lower to the ground is used for the serving of alcoholic beverages. Hanging from the cave ceiling by the food table is a spice rack holding matches and food seasoning. The placement of the spice rack allows it to survive bad weather and it is always left stocked ready for the next gathering.

To the west of the main cave and adjacent to it, is the turtle collecting pen. Scattered in a cascade fashion outside this pen are numerous carapaces and bones from consumed land tortoises (*Chelonoidis carbonaria,* (Breuil 2002) *referred to as "turtles" by the Barbudans*). With an estimated MNI of 130 individuals,

many more are expected to be found when we excavate areas that are now no longer easily visible. A butcher block is used for the processing of the land tortoise. After being removed from their shell the tortoises are placed in boiling water to remove the skin and then are butchered, bone in, and placed in the cooking pot.

Figure 2. Castle Hill Cave

All pork processing is kept away from any other animal processing since the different animals are never cooked together in the same pot. Separate butcher blocks and tables are used for processing each of the animal groups involved. The variety of animals that are consumed during feasting include boar (*Sus scrofa)* , deer (*Dama dama*), cattle (*Bos Taurus*), land tortoises, caprines, birds, doves and Guinea Hens, as well as many varieties of fish and hermit crabs (*Coenobita clypeatus*). The ungulates are processed in the deer area, the fish and shellfish did not have assigned areas for processing but it is quite likely they already come preprocessed to the site.

Next to the tortoise processing area are shallow caverns that are used for the safe keeping of the cooking pots and utensils in between visits. In front of the cooking pot storage area is a table for processing boar and a few feet away a table for processing deer, along with a clothing line for drying laundry. The boar is shaved, singed, and then butchered and placed in the cooking pot. The cooking pit area has a long grill and all pots are placed next to each other for cooking.

The deer is first taken to the deer processing area in the northeast part of the cave where the animal is hung by the calcaneus on a stick that hangs from a tree (in other caves it is hung in the same manner from the cave ceiling itself) and is then dressed. The skull and the lower limbs are removed and discarded. The skulls of stags are exhibited on the outer cave wall. After the initial butchery, the deer carcass is then brought over to the processing table for further butchery before being placed in the cooking pot. All animals are hacked, bone in. No deboning takes places prior to consumption resulting in extensive splinter debris in the midden as well as parts of the cave floor.

Figure 3. Work table outside of Castle Cave.

In front of the cave along the feeding table numerous bones from other hunting and gathering activities were recorded, primarily barracuda (*Sphyraena barracuda*), parrot fish (genus *Sparisoma)*, empty shells from hermit crab (locals call them soldier crabs) and conch.

About 100 feet away from the sleeping/eating area toward the east, there is a recreation area that has chairs and hammocks. This is in close proximity to nickel tree bushes where the seed "nickel" is extracted and used in playing wari.

Playing cards and dominoes are favorite activities and the traces of them are evident throughout the recreation area floor. Byproducts of the feasting activities are left behind. Some of the debris, primarily non-biodegradeable items such as bottles and cans are occasionally removed. In the following field seasons, systematic collection of the bone material will be performed and metrics will be collected for the major species. The tortoises will be sexed and samples will be retained for DNA analysis.

Two Foot Bay: Indian Cave

This cave marks the northern end of the escarpment that contains the coastal caves and it is

one of the higher elevation caves. The cave has multiple rooms and two entrances. The most used entrance is to the east. A very narrow passageway with a low ceiling covers a distance of approximately 15 meters before arriving at the main chamber. The main chamber has a sunken feature to the north. To the south there is another low ceiling passage that leads to a wall containing two petroglyphs. The petroglyphs appear to represent two faces, possibly one male and the other female. Barbudans believe that they are Amerindian in origin and were placed there to keep bad spirits away from the cave. Both petroglyphs have deteriorated over the last few years from wind and humidity as well by being touched by visitors. Further exploration of the cave leads to a sinkhole feature in the middle of the cave. This chamber leads to a rock face entrance to the last northern cave chamber. The rock face above the entrance of this chamber coupled with the entrance itself has the appearance of a skull. Barbudans today show this cave to tourists visiting their island but will never use this cave as a shelter or dwelling during their "living from the land" celebrations. This cave is on occasion used for meals but it is uniformly avoided for overnight stays.

Figure 4. Indian Cave. Note the skull-like impression of the cave. Jay Haviser and SIMARC students are standing in the mouth of the skull.

Unfortunately the cave floor was mined during colonial times for the extraction of phosphate. Extensive coring thus far has not yielded any stratigraphy that would possibly indicate undisturbed archaeological layers. A soil micromorphology team from the University of Stirling will further investigate the cave in 2012 in the hope of identifying information on cave usage through surviving microscopic signatures.

Nicey Cave Complex: Cave 2

This cave is a complex of five chambers with a rear entrance/skylight formed by a section of collapsed roof. There is an outer chamber directly accessible from outside, and three inner chambers divided by low ceiling ridges. Four of the chambers are substantial in size and one, chamber 5, is a very small circular crevice adjacent to the larger chamber 4. The cave has extensive stalagmites and stalactites and the cave floor is primarily sand that is covered by broken stalactites. The cave also features a circular stone enclosure similar to tortoise pens seen on modern sites except that the walls of the enclosure are too low to hold tortoises and the enclosure itself is far removed from daylight. (tortoise pens require light for the well being of the animals prior to harvesting). Coring indicated 3 layers of sedimentation and 25-30cm of total depth. The entire cave floor was mapped cored and phosphate tested. Surface collection of all artifacts and ecofacts was performed. Chamber 5 was excavated in its entirety (McGovern et al 2010).

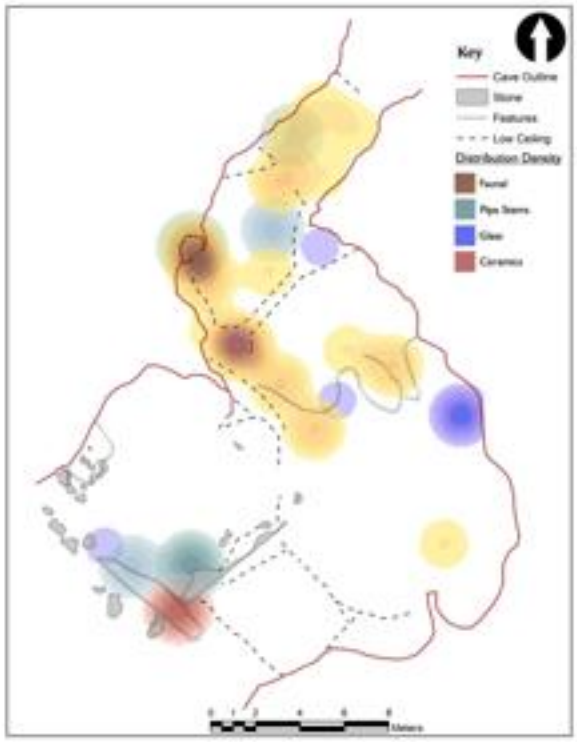

Figure 5. Survey of Cave 2 with artifact distributions.

The artifacts recovered, with the exception of chamber 1 which is the cave mouth and is open to the outside, showed a complete lack of modern debris. The outer chamber had 2 hunting hangers (wood sticks hanging with rope from the cave ceiling and used for dressing game) and the mummified carcass of a donkey. Extensive entomological evidence and bones showed that often animals do die in the shelter of the outer chamber of this cave. About 10 feet away from the mouth of the cave, there were accumulations of stone tools, possibly archaic and a test excavation at the mouth of the cave uncovered an intact early Saladoid midden, both the tools and bones from the midden are currently under analysis and the results will be presented in a separate paper.

Figure 6. Core from Inner Chamber 2.

The artifacts recovered from inside the cave are a 19th century drinking glass, one late 18th century or 19th century fragment of a black glass bottle base, a dark brown gun flint (English) and a musket ball. A number of white clay pipe stems were found, none with maker's marks, as well as one fragment of a bowl. The diameter of the stems suggests dates of manufacture within the late 17th century to the middle of the 18th century. The bowl has no maker's mark and much of it has been broken off, obscuring the overall shape of the bowl, yet what remains can be tentatively dated to the late 17th century or the early 18th century.

The most distinctive characteristic of the faunal assemblage is the presence of a significant number of cat bone elements, Felus catus spp (see figure 3). The cat elements do not represent the whole of the cat skeleton. The cat bones showed a preponderance of ulna, femur and humerus elements. The top of a skull was also recovered along with a number of mandibles. Only one vertebra and a couple of ribs were recovered. Figure 3 represents the frequency of bones recovered with black color indicating the highest density and white the lack thereof. A number of the long bones were broken and exhibit spiral fractures. Spiral fractures are generally caused by twisting the bone from both ends, a process that is most likely caused by human intervention. The cat bones from this assemblage do not show any signs of chewing by predators or scavengers. Coupled with the spiral fractures this faunal assemblage would seem to be the product of human activity. The rest of the assemblage shows characteristics of a cave that saw intermittent but clear human activity. The typical prey animals are represented (see figure 8) as are scavengers such as rats and land crabs. Though the

prey animals are represented it should be pointed out that the assemblage is quite atypical for a dwelling or feasting site such as those described earlier in this paper. The faunal material was primarily found in the darkest most inaccessible part of this cave. The majority of the artifacts also were found in this part of the cave, many of them in Chamber 5, the same place where the cat bones were found. The approximate time span in which these activities could have taken place based on artifact dating points to an early modern date from the late 17th century into the 19th century. Most of the artifacts were collected as a surface collection and cannot be used to date any particular event yet they do suggest that the cave might have been in use during the Historic Period from as early as the late 17th century. Other archaeological research in the region has confirmed cat remains in Obeah contexts (see Haviser, J. 2010, 426-441, Obeah

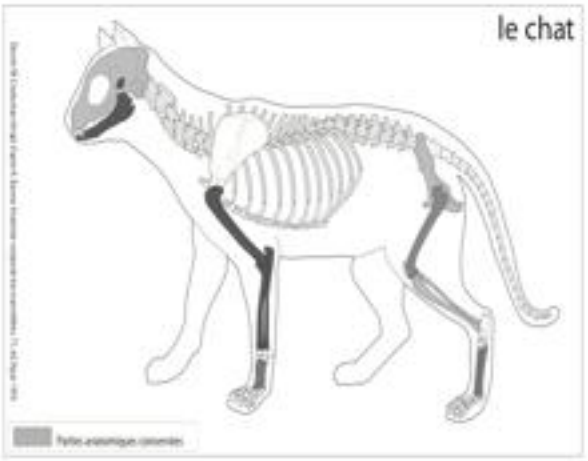

Figure 7. Frequency of elements present from Dodson and Wexier 1979 drawing by M. Coutureau.

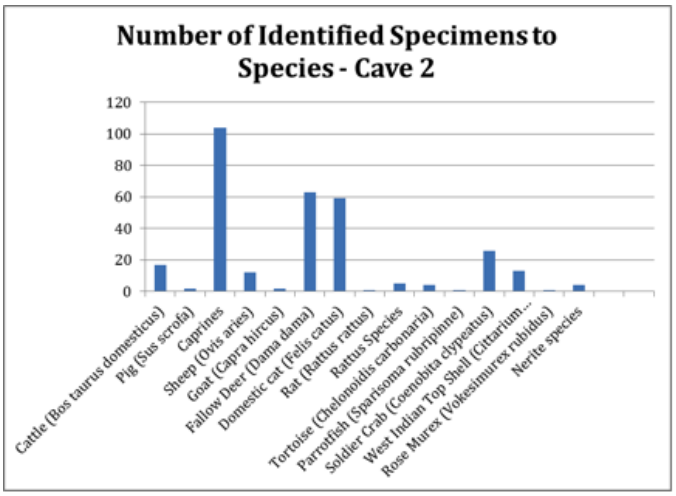

Figure 8. NISP Nicey Complex, Cave 2 faunal assemblage.

One tool that enslaved Africans utilized to negotiate and resist their bondage was ritual activity and religion. In the Anglophone islands of the Caribbean the creole ritual activity that developed is often termed *Obeah* (Olmos, Paravisini-Gebert 2011) *Obeah* is a difficult phenomenon to describe, in part due to its underground nature. is variously described as 'witchcraft', 'religion', and 'folk practice'. It has elements of medicinal use as well as poisoning and magic(De Barros 2007; Handler 2000; Lazarus-Black 1994; Mantz 2007; McClure 1982; Paton 2009). All creolized, syncretic African-American ritual activity was practiced in a context in which secrecy was important because of the Euro-American bans on their practice. *Obeah*, perhaps more than other African-American rituals, was practiced in secret. It has been argued that the English colonial world was particularly unsuited to the creation of African-American hybrid activity (Elliott 2006; Canizares-Esguerra 2006). *Obeah* embodied everything that was anathema to the white Anglo-Protestants who associated it with pagan African religion, devil worship, and rebelliousness. Its leaders were thought to have a corrupting influence on other enslaved people and owners believed that the Africans used herbs for "witchcraft" that could destroy their crops and herds and poison the minds of the blacks and the bodies of white Christians. *Obeah* became a catch-all term for many misunderstood African practices and laws were passed throughout the North American colonies and the British Caribbean making it illegal to practice or participate in *Obeah* rituals (Lazarus-Black,

1994). *Obeah* had to stay deep underground (sometimes literally) in order to be practiced. The secrecy which preserved the practices in turn makes it very difficult to turn towards the sort of popular and scholarly material available for the description and study of african-creole ritual that developed in the French and Spanish Empires.

The archaeological evidence from Nicey Cave strongly suggests ritual practice. Artifacts that could be associated with Obeah, as well as their placement support this possibility. While the dating of this material is by no means precise we suggest that this activity might have been African based and might be something describable as *Obeah*. The timing is important here though. If this activity is indeed late 17th century or early 18th century then the population engaged in this might very well have been African born. There is even the very limited possibility that if it is late 17th century that the activity could have been in part European, possibly Irish, as well as African. There is a long and well documented history of European folk-magic activity centered on the abuse of cats (Darnton 1984). If on the other hand this is an 18th or even 19th century activity then defining it as *Obeah* might be more solid. Regardless it is highly suggestive evidence of ritual activity taking place in an out-of-the-way part of the island in the most inaccessible part of a dark and difficult to enter cave. In looking at what has been described of specific components that constitute obeah rituals, it is obvious that while there are some similarities in the basis of praxis, obeah is also adapted to local availability of resources. Some basic components in its ritual activity include cat bones, goblets and hollowed bones, colored glass bottles, gunpowder and rum, among others as well as extensive knowledge of herbs and medicinal plants(Lazarus-Black 1994; Mantz 2007; Sturge and Harvey 1838). The assemblage of cave 2 provides strong indications of a possible *Obeah* practice having taken place

Conclusions

The caves and rock shelters of Barbuda have been used by humans for thousands of years, and the 2010 cave survey team was able to document occupation beginning possibly as early as the Archaic , c.4500 years BCE, through the Saladoid (ca. 200BCE-1200CE) and Historic Periods (17^{th} – 19^{th} century CE) down to contemporary use by 21^{st} century Barbudans. The caves as multifunctional spaces with differential use through time have been used for shelter, feasting and ritual activity.

The Barbuda Historical Ecology Project will investigate each of these different periods of use for the caves of the Atlantic coast, including the contemporary use of the caves (Cruz pers. Comm. 2011). Barbuda is one of the last remaining Caribbean islands that has escaped intensive development. Barbudans have been able to maintain a relationship to their environment that is unparalleled. The 'living off the land' activities as seen at the caves are an excellent example of this. Barbuda is not immune however to development and the island is changing rapidly. The need for economic growth has given rise to building activity that has destroyed archaeological sites and potential plans of further development will no doubt affect the Barbudan life style and identity. As the elders are passing so does their knowledge to this prized connection of "living from the land". To what degree the new generations of Barbudans will choose to maintain these life ways remains to be seen. As archaeologists and anthropologists we have been recording this historic transitional moment and have been collaborating with local authorities in involving the local high school youth in all the studies and excavations of the ethnographic cave use. Following in the footsteps of past Barbudans, the Barbudans of today maintain a relationship to their island in part through the use of the caves. The longitudinal study of the caves of Barbuda by the Barbuda Historical Ecology Project will continue to study the relationship of these caves to each population that has lived on the island of Barbuda, especially in reference to the their importance to contemporary Barbudans.

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References

Breuil, Michel
2002 Histoire naturelle des Amphibiens et Reptiles terrestres de l'archipel Guadeloupeen. Guadeloupe, Saint Martin, Saint-Barthelemy. Patrimoine Naturels, 54:339p. Publication Scientifiques du M.N.H.N., Paris

Bain, A., L. Kennedy, M. Burn, and A.M. Faucher.
2010 *Archaeobotany, Paleoclimatology, and Archaeoentomology in Barbuda*. New York: Barbuda Archaeological Research Center.

De Barros, J.
2007 "Dispensers, Obeah and Quackery: Medical Rivalries in Post-Slavery British Guiana." *Social History of Medicine* 20 (2): 243.

Faucher, A.M., E.A. Guay, and A. Bain.
2011 *Archaeobotanical Studies on Barbuda, Preliminary Results from 2011*. New York: Barbuda Archaeological Research Center.

Hambrecht, G., and F. Feeley
2010 *Archaeological Investigations of Codrington Castle, Codrington, Barbuda*. New York: Barbuda Archaeological Research Center.

Hambrecht, G., M. Hicks, B. Djuknic, S. Khalsa, L. Williams, L. Witter, R. Riggle, J. Plummer, G. Olavarria, and R. Adkins
2011 *Preliminary Report of the January 2011 Excavations at Highland House, Barbuda, Antigua/Barbuda*. New York: Barbuda Archaeological Research Center.

Hambrecht, G., and C. Look
2009 *2009 Highland House Survey Report for the Barbuda Historical Ecology Project*. New York: Barbuda Archaeological Research Center.

Handler, J. S
2000 "Slave Medicine and Obeah in Barbados, Circa 1650 to 1834." *New West Indian Guide/Nieuwe West-Indische Gids* 74 (1): 57.

Haviser, J.
2010 African-Creole Religious Artifacts Associated with a 19th century Dutch Priest Burial on St. Maarten, Proceedings of the 22nd International

Congress for Caribbean Archaeology, pp.426-441 Jamaica National Heritage Trust Publication, Kingston, Jamaica.

Lazarus-Black, M.
1994 *Legitimate Acts and Illegal Encounters: Law and Society in Antigua and Barbuda*. Smithsonian Inst Pr.

Mantz, J. W.
2007 "Enchanting Panics and Obeah Anxieties: Concealing and Disclosing Eastern Caribbean Witchcraft." *Anthropology and Humanism* 32 (1): 18.

McClure, S. A.
1982 "Parallel Usage of Medicinal Plants by Africans and Their Caribbean Descendants." *Economic Botany* 36 (3): 291–301.

McGovern et al
2010 *2010 Cave Survey Report, Barbuda Historical Ecology Project*. New York: Barbuda Archaeological Research Center.

Paton, D.
2009 "Obeah Acts: Producing and Policing the Boundaries of Religion in the Caribbean." *Small Axe: A Caribbean Journal of Criticism* 13 (1): 1.

Perdikaris, Sophia
2009 *2009 Barbuda Historical Archaeology Report*. New York: Barbuda Archaeological Research Center.

Perdikaris, Sophia
2010 *2010 Barbuda Historical Ecology Project Report*. New York: Barbuda Archaeological Research Center.

———.
2011 *2011 Barbuda Historical Ecology Project Report*. New York: Barbuda Archaeological Research Center.

Sturge, J., and T. Harvey
1838 *The West Indies in 1837: Being the Journal of a Visit to Antigua, Monsterrat, Dominica, St. Lucia, Barbadoes, and Jamaica; Undertaken for the Purpose of Ascertaining the Actual Condition of the Negro Population of Those Islands*. Hamilton, Adams, and Co.

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