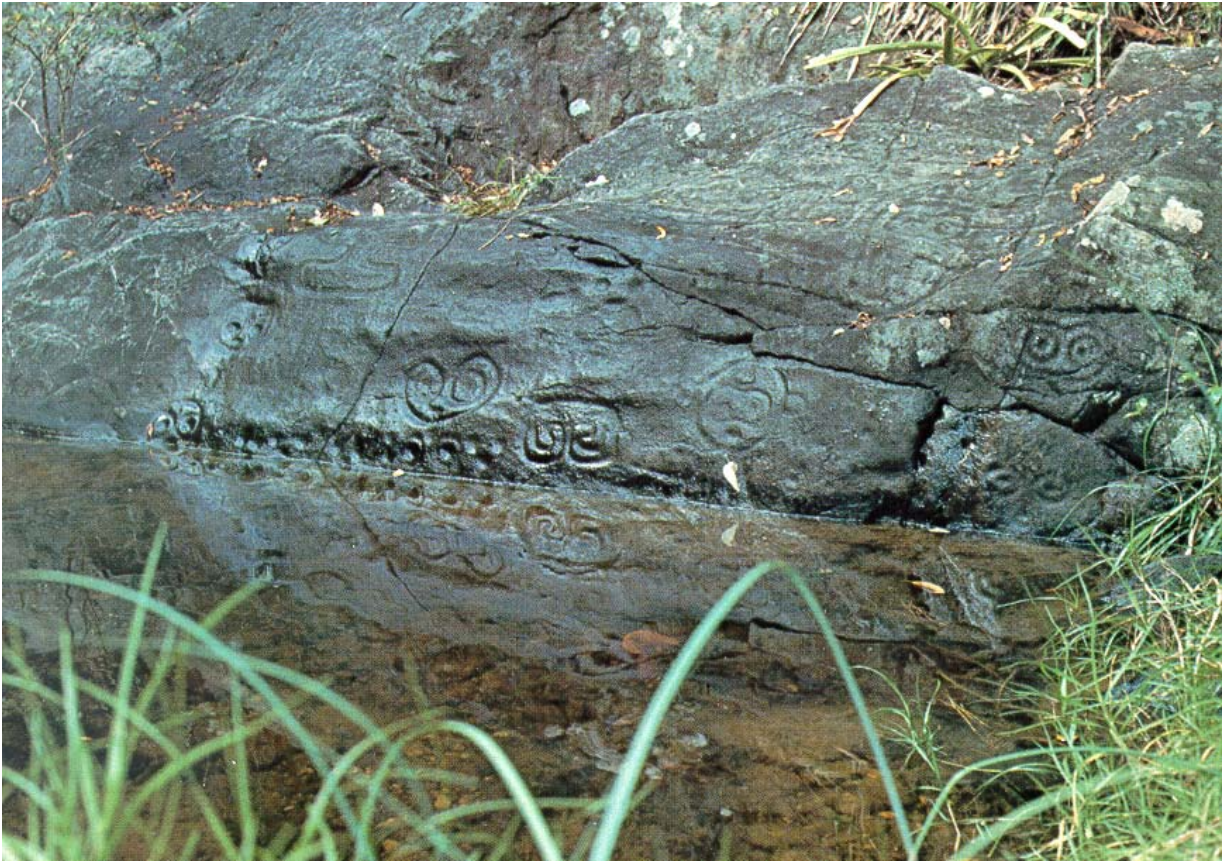


## UNDERSTANDING THE PETROGLYPHS

by Ken Wild



*The petroglyphs at one of the pools at Reef Bay. Photo by Rudy Patton*

Within the deep interior of the Reef Bay valley rests one of St. John's most important clues to a lost culture from the island's past, the petroglyphs. This captivating place is located at the base of the valley's highest waterfall, surrounded by the island's lush tropical vegetation. Here, mysterious faces are found carved into the fall's blue basalt rock. A spring fed pool beneath reflects a 20-foot wide panorama of carvings year-round with other petroglyphs visible nearby. For those who may be unfamiliar with the term petroglyph, the term petroglyph refers to rock art carvings whereas pictographs are rock art paintings.

Twenty years ago (1984) I undertook my first archeological expedition to St. John to conduct tests at Annaberg Plantation. One weekend I got the chance to hike into Reef Bay and visit this wonderful site. Immediately questions popped into my head, as they must for most visitors. Who made these, and why did they carve them here? What do they mean, and when were they done? I wanted to find out; I never thought I might get the chance to explore some of these questions. Over the years, as I continued to conduct archaeological research here, I heard several local theories that did not seem to fit with what I was gathering from scientific sources. Digging deeper into the Caribbean archeological record, I came across many prominent archaeologists who had established and written about the originators of the petroglyphs. However, I found very little information that addressed the more definitive questions. It was clear that the what, why, when they were carved, and why in certain places -- had been a bit more elusive. That is, until recent discoveries through the park's archeological research at Cinnamon and Trunk Bays. Here, new insight into these mysterious carvings is coming to light.



Let's begin with the basic question: Who made these petroglyphs? Throughout the Caribbean, petroglyphs are discovered in caves and along riverbanks. Just off St. John at the somewhat unapproachable east end of Congo Cay, they are carved into the stone slab near the tip of the island. In the Greater Antilles they are most abundant. On the larger islands of Puerto Rico and Hispaniola similar carvings are found on slabs of stone that enclose plazas or ball courts obviously designed for ceremonial events and games. These plaza-carvings indicated to early archeologists that the originators of this rock art were the Native Americans who inhabited the Caribbean (Loven 1875, English translation 1935; Fewkes 1907, Hatt 1924, Rouse 1952).



*Petroglyphs on Congo Cay. (Taken from Sleight 1962)*

It is interesting that less than forty-five miles west of the Virgin Islands in Puerto Rico there is little doubt about who made the petroglyphs, as they have for decades played a significant role in the inhabitant's pre-Columbian heritage. The sheer number of dedicated archaeologists and anthropologists and cultural programs in Puerto Rico are responsible for making the island's prehistory an important part of their educational programs.

*A Stone-lined plaza/ball court in Puerto Rico. Below, carved stones around a ball court.*



The plaza/ball court petroglyphs of Puerto Rico are somewhat more elaborate than most carvings found in the remote caves and at water pools (however, some cave rock art can be very complex). For the most part these plaza carvings can be interpreted as Taino creation deities as



*Ball court with rock art uncovered at the Salt River Site, St. Croix by Gudmund Hatt (1924).*

decried to the early Spanish priest of the 1500 hundreds. One can hardly come to such mythological conclusions from the simple face carvings such as those at Reef Bay. So, can we associate these grand plaza carvings with petroglyphs at Reef Bay and other remote areas even with these dissimilarities?

I won't forget when that answer became obvious one morning in the 1980s as we headed into St. John backcountry. I was reading an old 1920s archeological report while bouncing around our old wooden field boxes packed around us in the jeep. The report was about the Salt River Bay Site, St. Croix. In the report, one photograph provided the answer to the first question. The picture showed stones outlining a plaza and they were carved with faces nearly identical to Reef Bay and Congo Cay. It appeared evident by the plaza carvings that Native Americans were responsible for the carvings. At Salt River many Taino artifacts were also found in direct association with these petroglyphs.

The St. John connection-Investigations at two sites on St. John, Cinnamon Bay and Trunk Bay, have produced a series of diagnostic artifacts confirming Classic Taino culture in the northern Virgin Islands and clarifying many misconceptions about the presence of Taino artifacts in the area. That is, they were neither trade goods, nor the result of some late migratory phase, nor some sub-Taino culture as proposed by previous scholars. Taino culture had developed here just as on the big islands of Puerto Rico and Hispaniola. Prior to the investigations at Cinnamon Bay, the ability to clearly define the development of specifically the Taino culture period was difficult. This became possible for the northern Virgin Islands for a number of reasons, not least of which is the Cinnamon Bay Site's incredible preservation.



*Stone artifacts recovered from the Salt River Site depicting both Reef Bay and Salt River petroglyph facial characteristics.*



*Stone carved artifact as uncovered at Cinnamon Bay in the Classic Taino stratigraphic layers.*

The archeological record: What is preserved and what does it mean?-sequential ceremonial episodes that represent six hundred years of offerings made at the location of a ceremonial shrine or temple. Artifact analysis of these episodes occurring at the Trunk and Cinnamon sites is demonstrating how and when these people advanced from a simple society, like that found at Trunk Bay (circa AD 900), to the complex hierarchial society that greeted Columbus into the Americas. Taino ancestral worship had evolved to empower an elite

lineage. Archeological theory for this evolutionary process was presented by Antonio Curet and Jose Oliver (1998:219) in their study of mortuary practices. The study of the ceramic imagery from St. John demonstrates a probable scenario as to how the chiefly power was acquired over time and retained through a process of religious manipulations of existing beliefs in ancestor rites by controlling the religious structure and symbols to legitimize the elite authority. Central to the argument is that ceramic imagery on offering vessels depicts how and when the emerging elites enhance the established ancestral cult by introducing a visual manifestation into the natural world that has a dual connection to the supernatural world. This provides that symbolic link between the human soul and the supernatural through a physical manifestation of the dead that comes to life in the natural world.

This physical manifestation was the bat as chronicled by the Spanish. The bat (the supernatural spirit) enters the natural world of the living and is to be worshiped, consulted and, as the historical record indicates, feared. This then enforces a need for specific individuals who can communicate with the supernatural. In this process the elite have the power to determine the appropriate symbolic imagery that portrays the physical representation of the ancestor.



Symbolic imagery permeates almost all of pre-Columbian art. Elaborate objects such as stone carved three-pointed Zemi stones, effigy vessels, stone-beaded headdresses, ceremonial seats (duho), stone collars and carved stone axes were created to symbolize religious concepts and define hierarchy within their social order. From the two sites on St. John the symbolic imagery depicted in the ceramic adornos (clay effigy heads) attached to offering vessels shifts over time from strictly anthropomorphic faces as found at Trunk Bay to anthropomorphic (human like) faces with a zoomorphic bat nose indicating the probability that the offering is intended for the deceased ancestor. Prehistorian Manuel Garcia Arevalo (1997:115) points out that in the past these figures were falsely identified as monkey designs. Herrera Fritot and Youmans (1946: 69-83) were the first to correctly identify this ceramic imagery as “humanized faces that highlight the isomorphism between these animals and the souls of the dead.” Offerings in the archaeological record dramatically increase when this imagery (the bat nose) is introduced. Ritual activities and offerings have become mandatory in order to “propitiate” (Rouse 1992:14) or appease ancestral deities and attain knowledge needed to cure, make rain and obtain appropriate direction on community needs. As the elite’s power evolves, this symbolic imagery places a headdress, worn only by a chief, on these offering vessels, demonstrating approximately when the Taino begin worshiping a chiefly lineage.



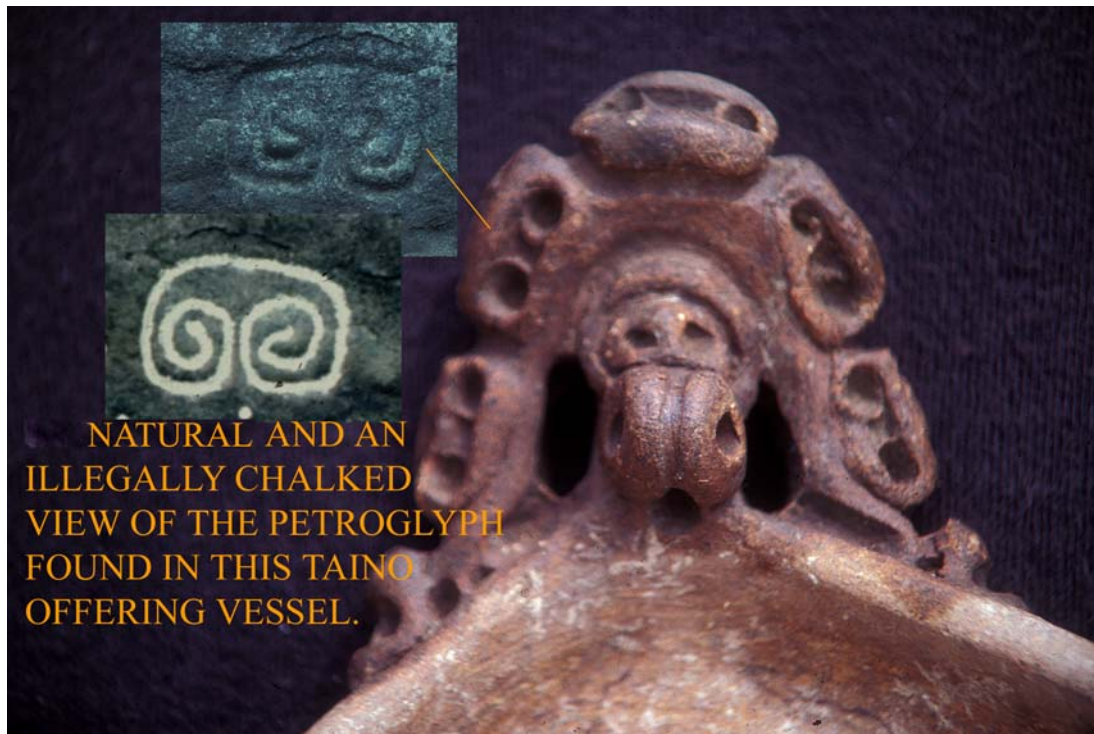
*Circa AD 900 anthropomorphic face from Trunk Bay.*



*A fruit bat found in the Caribbean in foreground. In the upper left are bat nosed adornos from Cinnamon Bay two with headdress and one that was recovered in an older level without a headdress. The photograph of the bat is credited to Merlin D. Tuttle courtesy of Bat Conservation International.*

### The archeological connection!

The faces and designs of the petroglyphs are found on the pottery used in making offerings to the chief's ancestors. The eye designs are most telling, but one real clincher is that single symbol known so well on the island, the one used by Caneel Bay Resort and found in most jewelry stores. This design outlines the headdress of one of those ancestral deities honored at Cinnamon Bay. With such astonishing correlations (we can thank the skillful and artistic female prehistoric potters of St. John), we can now address those unsolved questions as to what they mean, why they were carved at Reef Bay and when they were carved.



NATURAL AND AN  
ILLEGALLY CHALKED  
VIEW OF THE PETROGLYPH  
FOUND IN THIS TAINO  
OFFERING VESSEL.

### What are the petroglyphs and what do they mean?

To fully understand the petroglyphs and why the Taino would carve these images, we must reflect on Native Americans and their concept of the world. In general, all native inhabitants of the New World possessed a different understanding of the interdependent relationships between the spiritual and natural world than the Europeans who entered their lands. In their minds the supernatural was a complex matrix interwoven into everything in this natural world. In this regard, the Taino were little different from most North and South American Indians that clashed with the Europeans who perceived nature as something separate and to be controlled, usually for a profit. The native Indian was not apart from, but lived inside this web of the natural and supernatural, with all creatures being like more than unlike themselves. The supernatural was a powerful force every bit as real as their physically visible one, and it affected life and death, hunting, the weather, illness, crops, war--essentially everything in their lives. By recognizing these concepts we can begin to comprehend what the petroglyphs represent and why they were carved. We must understand that it was important to them that every effort was extended to preserve communication with that other life in the supernatural world to insure the well-being of individuals in both worlds (Taylor 2001).



*The double spiral symbol on this Taino vessel from the Dominican Republic is very similar to the one found at Reef Bay and throughout the Caribbean.(Courtesy of El Museo Del Barrio, In Taino Pre-Columbian Art and Culture from the Caribbean. page 35).*

Given the archeological evidence from Cinnamon Bay and the similarities found between ceramic design elements and the petroglyphs, it seems probable that the faces and symbols on the petroglyphs maintain the same meaning as they do on the ceremonial vessels. The ceramic faces are the dead as indicated by the fruit bat nose on the human face, as the petroglyphs also represent the faces of their dead ancestors or, if you like, the faces from their supernatural world (Wild 2001). Fortunately other researchers, such as Dr. Peter G. Roe in his studies of living cultures of South America, cave petroglyphs and ceramics of Puerto Rico, along with the Spanish record, have come to the same conclusion. Both Roe and Vega concluded that the rounded bundle that extends below some of the carved faces is not a “swaddled infant” as had been suggested but the deceased body as wrapped in a hammock (hammock is a Taino word). In early Spanish documents it is recorded that the wrapped body is carried on a pole to its burial (Vega 1976:201, Roe 1991: 335 and Roe 1997: 154). That the circles around the eyes, found on many petroglyphs, are skeletal



orbits of the dead, as suggested by Roe 1997, certainly appears obvious when compared to the Taino skeletal amulets of carved shell.

What the findings in the archaeological record of St. John additionally indicate is that connection between the worship of the dead elite and the significant role that the bat plays in this culture’s social development. It is this same connection that also helps us to understand even more about the petroglyphs and why they were carved in certain places.

*The Reef Bay petroglyph on the left illustrates a common hammock-wrapped ancestor found throughout the Caribbean. The carved shell amulet on the right from the Dominican Republic depicts skeletal features in fine detail as carved by Tainos, providing a good comparative model that indicates the circular lines around the eyes of this wrapped ancestor depicted on the right from Reef Bay, like so many others, represents skeletal orbits. (Photo on the right courtesy of El Museo Del Barrio, In Taino Pre-Columbian Art and Culture from the Caribbean. page 131).*

Why are the petroglyphs at Reef Bay? This has been one of the most motivating questions I have often been asked by locals and visitors alike on St. John, and as I discovered in 1999 at the International Congress for Caribbean Archaeology one that appeared to be still puzzling. As it turns out, it is this very question that connects the ceramic bat depictions to the petroglyphs. Sometimes the answers to such questions are so obvious that they are easily overlooked or they just fall in place once you have that one clue that leads you to a plausible explanation. This time the evidence came together while taking an evening swim in a pool that overlooks Congo Cay. Those of you who have pools in the Caribbean know what happens at dusk; I was amazed as I watched those rather large mammals swoop down just inches from my head as they fed upon the insects attracted to the pool. Bats! Then I remembered the biologist telling me about the bat cave behind the carvings at Congo Cay. The next morning I called my friend Dr. Jeff Walker, archeologist for El Yunque National Forest in Puerto Rico. I asked, “Jeff, are all those petroglyphs depicted on boulders in the forest at water pools?” “Yes,” he confirmed. I had to get to Reef Bay.



I asked long-time project volunteer Bill Stelzer to take his digital infrared camera to Reef Bay and film what occurs at dusk. He captured some of the most fascinating footage: bats circling the pool with the petroglyphs as the backdrop. There it was, a simple answer: petroglyphs were carved where their ancestors gather, whether caves or water pools; a place to come and communicate with their ancestors in order to make it rain, cure the sick, and in general insure a healthy and prosperous community.



*Infrared image of bats at Reef Bay*

Did this happen at Reef Bay? In speculating on this probability another weekend visit to the petroglyphs comes to mind, when an interesting feature was uncovered that possibly was associated with ritualistic activity. In 1987, while on island to conduct investigations at Lameshur Bay, Roy Reeves, a veteran of western Park Service archeology, joined us on a trip to Reef Bay. While there he examined a carved hole in the rock across from the carvings and stated that this has to be a metate (often a stone bowl used for grinding plant material), an artifact with which he was most familiar from his years of investigating prehistoric

sites out west. On a recent (2003) visit to the petroglyphs, I once again studied this feature, and I could not help but wonder about this “metate,” given the recent archeological knowledge we have acquired. This perfectly rounded hole is carved in the only flat rock that provides the finest spot to sit and observe the petroglyphs across the pool. It appears evident that this feature’s positioning is no coincidence. The rock carved bowl appears to be in the perfect location for grinding that mixture of special plants used by the shaman (behique) that, along with fasting and ritualistic purification of the body through vomiting, allowed him to plunge into the realm of the ancestors to extract the wisdom required to cure the sick. This ritualistic practice was well documented by the



*Cohoba inhaler used by Taino in the Dominican Republic to transcend into their supernatural world.*



*Taino vomiting stick with bat figure. Dominican Republic. Carved from manatee bone (Courtesy of El Museo Del Barrio, In Taino Pre-Columbian Art and Culture from the Caribbean. page 119).*

Spanish and one that is a prevalent theme in the art of the Taino. As the Taino chiefdom hierarchy develops, as we observe in the archeological record at Cinnamon Bay, the chief (cacique) becomes the one empowered to enter that spiritual world of the elite ancestors and acquire the necessary knowledge and power to insure the well-being of the people.

Another phenomenon at Reef Bay suggests there may be an additional explanation as to why the petroglyphs were carved here and at other water sources. For those of you who have been there more than once, you might have noticed that most unusually fact: there is almost always water in this particular pool. Also, the water rises just to an optimal level to reflect the carvings and never over them. Many researchers, including Dr. Roe (1997), have been fascinated by, and have written about, this duality or mirrored/reflective imagery often found on Taino art that represents the natural and supernatural worlds. The Taino on St. John certainly believed in this duality. This is evident at Cinnamon Bay, as many of the ceramic effigies recovered depict this mirrored imagery. Now, as I sit here and write this, it occurs to me that I can't think of a finer place to mirror the images of their two worlds than where their ancestors from the supernatural world return to the natural world, and at one of the only mirrors available to native peoples, a pool of water.



*Possibly the mirrored view of the natural and supernatural worlds of the Taino as the petroglyphs are reflected at the Reef Bay pool.*

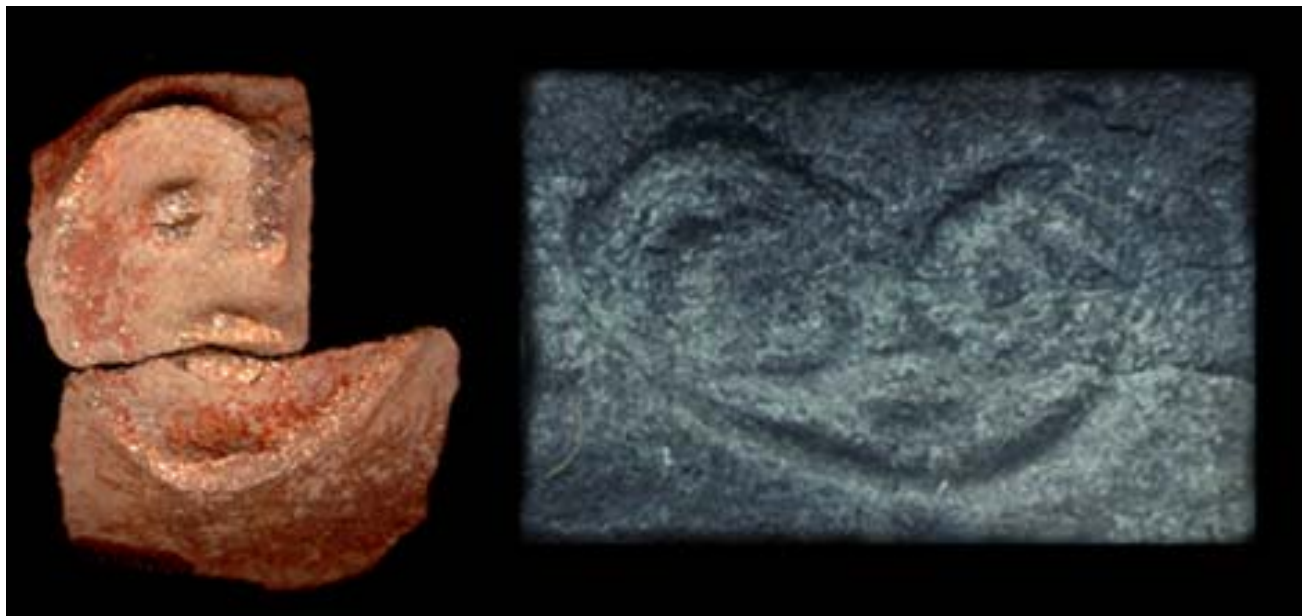
#### When were they carved?

Early scientists have felt that petroglyphs in general were produced sometime between AD 600 and AD 1500. However, determining when this occurred using comparative research has only recently been undertaken. With ceramic faces that come from datable layers occurring chronologically, this is now very possible. In Puerto Rico correlations have been found in Classic Taino ceramics, and researchers (Roe, and Rivera Melendez, 1995) studying cave petroglyphs in Puerto Rico have, from seriation studies of petroglyphs from the Puerto Rican archeological site of Maisabel, dated the rock art to a earlier developing Taino period identified by its distinctive Elenan ceramic style. At Cinnamon Bay this period is represented by a middle layer which has been radiocarbon dated to about AD 1080 to 1250. Above this middle layer at Cinnamon Bay are the Classic Taino deposits, radiocarbon dated to about AD 1250-1500. Below this middle layer are a series of layers, radiocarbon dated to AD 1020 to 1080 that have produced artifacts similar



to those recovered from Trunk Bay (circa AD 900), yet they symbolize a slight shift in imagery as the culture moves into Cinnamon Bay. It is interesting to note that it is within this middle layer that the first anthropomorphic bat effigy vessel occurs at Cinnamon Bay. However, at Cinnamon Bay the majority of the designs, like those on the petroglyphs, are found in the upper Chican levels. These upper levels are the final chapters in Classic Taino history prior to European devastation. By this time Taino society had shifted long ago from the simple society, as excavated at Trunk Bay, to the complex hierarchy in which the chief's ancestral lineage is worshiped.

For a while we suspected that the majority of petroglyphs at Reef Bay were carved between AD 1080-1500 as suggested by the evidence from Cinnamon Bay. However, in 2002, it appeared at least possible that some carvings could predate that middle layer at Cinnamon Bay, and even extend back in time to when their ancestors inhabited Trunk Bay. During analysis and mending of the pre-Columbian pottery from Trunk Bay, a face dating about circa AD 900 emerged from the ceramic fragments. It depicts that typical heart shaped face found among petroglyphs throughout the Caribbean. There is a very good example of one of these heart shaped faces at Reef Bay. However, this heart shape design continues through the Classic Taino Period, thus making it difficult to assign a temporal period to the shape except that it could have been carved at any time after about circa AD 700, which is the earliest radiocarbon date obtained for the Trunk Bay Site. This time frame is surprisingly similar to those first proposed by some of those early archaeologists to work in the Caribbean region.



*Left, ceramic face fragments from Trunk Bay. Right, heart shaped face at Reef Bay*

In summarizing our evidence to date, it appears that the Taino, as their culture developed about circa 900 AD and the 1490s, carved the petroglyphs. The carvings represent their ancestors and they carved them where their ancestors assembled. They were carved to communicate with the supernatural world but also to help manipulate religious doctrine in order that a social elite would emerge and maintain power. These types of manipulations have occurred across the globe, as sociopolitical systems have developed. The Taino were on their way to a very complex city-state system very similar to that of the Maya and Aztec, but of course they did not get the chance as their culture was destroyed within twenty years after Columbus landed.

Comparing petroglyphs. When comparing petroglyphs and groupings from the Lesser Antilles through the Greater Antilles it becomes apparent that there are many similarities, as can be observed in the few groupings illustrated below. Many researchers have undertaken a variety of classification schemes and interpretive methods in order to grasp a greater understanding of the art; a review of these studies can be found in *Puerto Rican Rock Art, A Resource Guide* by Dubelaar, Hayward, and Cinquino 1999).

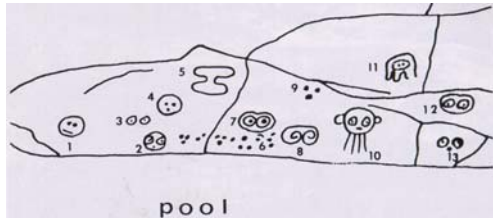
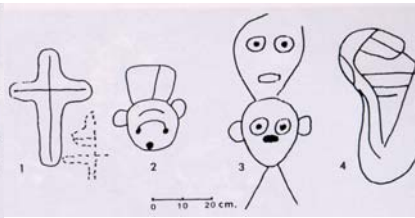
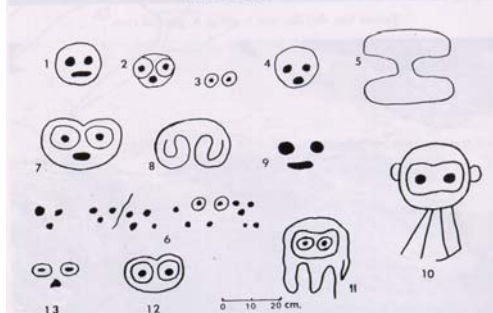
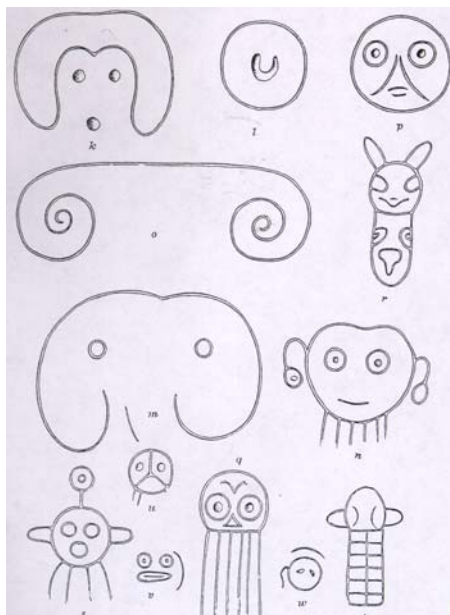
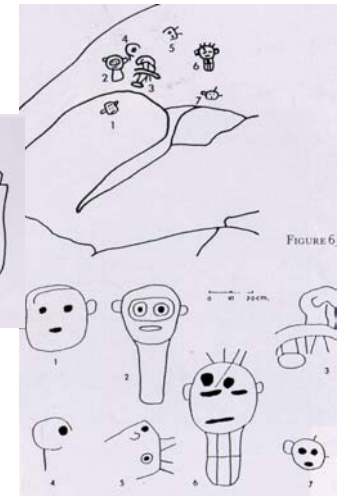


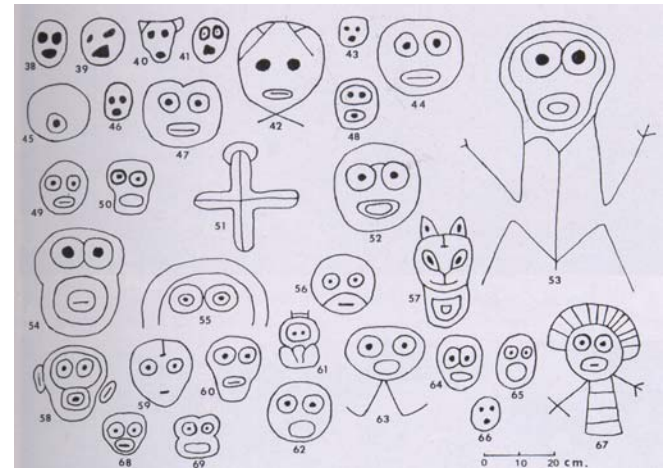
FIGURE 648. Reef Bay, site 1, group A, location of the drawings. The distance between 1 and 13 is approx. 3 m.



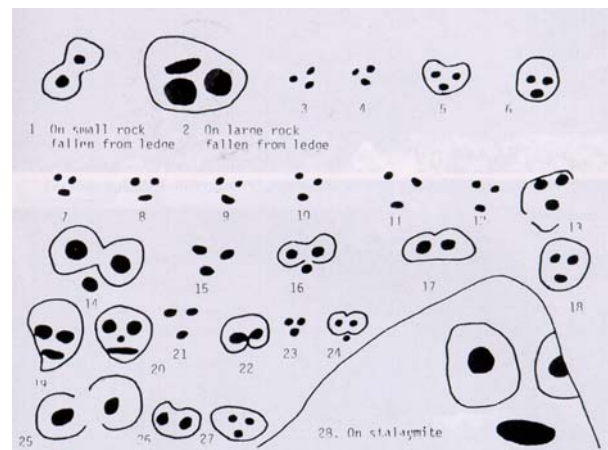
*Reef Bay petroglyph drawings.  
(Taken from Dubelaar 1993: 454-464).*



*Rock art found along the rivers  
of Puerto Rico. (Taken from  
Fewkes 1907).*



*Grenada petroglyphs from Mount Rich "rock 1,  
panel C" (Taken from Dubelaar 1993: 69).*



*Anguilla petroglyphs from "Big Spring site 2" (Dubelaar  
1993: 441, After Douglas 1988a).*



One strange but common feature on many of the carvings are lines that extend out of the top of the head. They are not antennae but most probably represent a headdress denoting ancestral status. Luckily, no one has advanced a space alien theory that I am aware of. Other designs that have been attributed to non-native artists are the series of three-dot clusters carved along the water's edge at Reef Bay. Nearly identical dot groupings are found on a large number of petroglyph

groupings throughout the Caribbean. When compared as a whole it is easy to see that they represent eyes and mouth. On many panels you can observe a progression from three dots to a full face, while many others have the two eye dots with a line below signifying a mouth that clearly identifies these as facial.



FIGURE 576. Stone Fort Ravine, site 2, W wall, nos. 4-9.

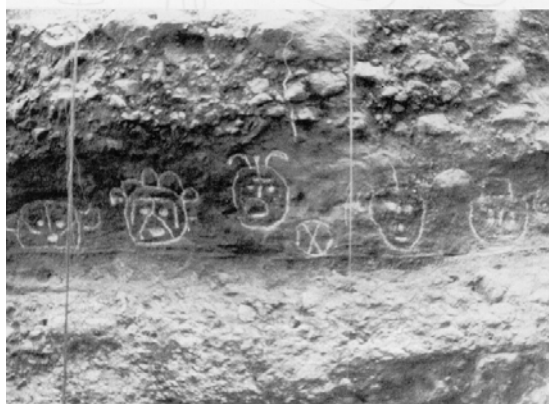
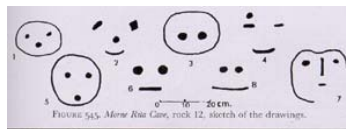
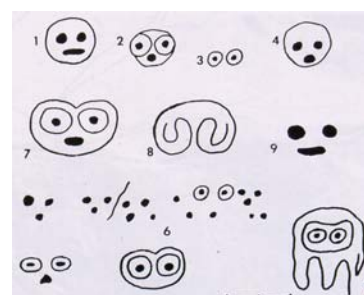


FIGURE 577. Stone Fort Ravine, site 2, W wall, nos. 6-17.

The two photographs above are from St. Kitts, Stone Fort Ravine site and depict headdresses in various stages of completion. (Taken from Dubelaar 1993:401).



Drawing of dots to faces on the island of Marie-Galante, Morne Rita Cave, rock 12. (Taken from Dubelaar1993: 381). See page 10, Anguilla drawings for more examples.



Drawing of dots at Reef Bay petroglyph. (Taken from Dubelaar1993: 454-464) Photograph of face dots below. Note line for mouth in 1st and 3rd from right.



Another unusual design at Reef Bay that some have speculated on is that I-shaped design. At the 2003 International Congress on Caribbean Archaeology I was fortunate to find a reproduction of a Taino vessel (left) with this I-shaped design. Above is a photograph of an illegally chalked depiction of the design.



The cross. There has been a lot of speculation about the cross that is inscribed into the far-left side of the pool's edge at Reef Bay. It is a Taino petroglyph, and nearly identical engravings have been found throughout the Caribbean. It may be, as suggested by Dubelaar, Hayward and Cinquino (1999:10), that the symbol might represent the four cardinal directions or an ancestral body as suggested in the St. Vincent carving depicted below.



*The cross in Taino rock art. Photograph above is from Reef Bay (Hatt 1941); upper right photograph is from Puerto Rico's "Piedra Escrita river boulder grouping, Barrio Coabey Municipio of Jayuya. (M. Hayward 1991; reproduced with permission from the Institute of Puerto Rican Culture)." Taken from Dubelaar 1999: plate 25. The photograph and drawing on the right is a St Vincent carving from the village of Barrouallie. It demonstrates the use of the outlined cross as a stylized body of this human figure with a headdress. (Photograph taken from Dubelaar 1993:111).*

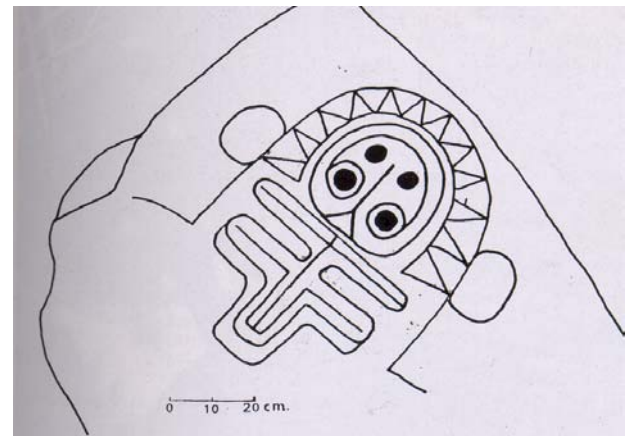


FIGURE 107. Barrouallie, sketch of the drawing.





Heritage. For hundreds of years people have marveled at the Reef Bay petroglyphs. Nearly identical carvings can be found throughout the Caribbean. Interpreting these pieces of art and history will hopefully link all island residents to a past that most can share. The Africans, Europeans and the Taino of these islands were the first to create the melting pot that characterizes our islands today. Many people here are physically related to this past and, even if not, we all share the customs, words, and ideas of these peoples as they have been passed down for centuries from island to island.

Today petroglyphs are celebrated throughout the Caribbean islands. All one needs to do is to travel just a few miles west to Puerto Rico, and there you will find Taino petroglyphs, very much like Reef Bay, and ladies in their 20's named Taina. Puerto Ricans go to great lengths to preserve and interpret petroglyphs to islanders and visitors alike as many are difficult to get to. In 2001, they made expensive castings of petroglyphs that are almost impossible to view, due to their location, in order to present them in a new museum dedicated to petroglyphs and the Pre-Columbian peoples who made them. If you visit the ball courts in Puerto Rico you will find well maintained site areas, and on the stone slabs that line the Taino

*Brochure for the new museum in the Dominican Republic devoted to the pictographs of Taino Art. Cueva De Las Maravillas. Republica Dominicana.*



*Cave Pictographs in Arte Rupestre En La Cueva de las Maravillas, Dominican Republic 2002:19.*

In that regard, please do not chalk them as this does cause irreversible damage to this wonderful resource. Defacement, such as chalking and scratching them is a federal crime that carries severe federal penalties.

#### In conclusion.

When we have looked upon the Reef Bay faces they have seemed unusual and strange. Maybe next time you stare at them you may ask yourself why they should not be mysterious, given what they represent, and what they meant to the people who carved them.

*A Reef Bay petroglyph carved into the flat rock across the pool. The face is positioned at a point where the water flows around the face like hair when there is a hard rain (Bill Stelzer, personal communications 2002) , and at a key location where the pool's overflow occurs that helps maintain a constant level to reflect their two worlds. Photograph by Bill Stelzer.*



*In this article I have chronicled discoveries as they occurred. Not all research data could be presented, but if anyone wishes to learn more about these findings, especially as they relate to Cinnamon Bay, they can visit the laboratory at Cinnamon Bay or call the Virgin Islands National Park and make an appointment. In conclusion, I would like to thank Michele Hayward and Michael Cinquino for encouraging me to pursue this research. I would recommend their book authored with Cornelis N. Dubelaar, Puerto Rican Rock Art, A Resource Guide (1999) as an excellent source to learn more about petroglyphs; it also provides an extensive bibliography on the subject. I would also recommend Dubelaar's The Petroglyphs of the Lesser Antilles, The Virgin Islands and Trinidad (1995) and Peter Roe's articles in Taino: Pre-Columbian Art and Culture from the Caribbean (1998). In closing, I would like to thank Caribbean archaeologist Dr. Emily Lundberg for her help editing this paper and her opinions that mean so much, but most of all I would like to thank her for all her support she has provided archaeological research here on St. John.*

## REFERENCES CITED

- Bercht, F., E. Brodsky, J. A. Farmer, and D. Taylor (editors)  
 1997 *Taino: Pre-Columbian Art and Culture from the Caribbean*. El Museo del Barrio, New York: Monacelli Press.
- Curet, A. L and J. R. Oliver  
 1998 Mortuary Practices, Social Development, and Ideology in Precolumbian Puerto Rico. *Latin American Antiquity*. 9:217-239.
- Dubelaar, Cornelis N, Michele H. Hayward Merklings and Michael A. Cinquino Argana  
 1999 *Puerto Rican Rock Art A Resource Guide*. Panamerican Consultants, Inc. Buffalo, New York.
- Dubelaar, Cornelis N.  
 1995 *The Petroglyphs of the Lesser Antilles, The Virgin Islands and Trinidad*. Foundation for Scientific Research in the Caribbean Region. Amsterdam, Netherlands
- Fewkes, Jesse Walter  
 1907 *The Aborigines of Puerto Rico and Neighboring Islands*. Government Printing Office. Twenty-Fifth Annual Report of the U.S. Bureau of Ethnology to the Secretary of the Smithsonian Institution 1903-04.
- Garcia Arevalo, Manuel .A.  
 1997 The Bat and the Owl: Nocturnal Images of Death. In *Taino: Pre Columbian Art and Culture from the Caribbean*, pp. 112-123 El Museo del Barrio, New York: Monacelli Press.
- Hatt, Gudmund  
 1924 Archaeology of the Virgin Islands. *Proceedings of the Twenty-First International Congress of Americanists* 1:29-42. The Hague. Parts 3-4.
- 1941 *West Indian Rock Carvings a religious Significance? ETS* 1:165-202.



- Herrera Fritot, R. and C. L. Youmans  
 1946 *La Caleta: joya arqueologica antillana: Exploracion y estudio de un rico yacimiento indigena dominicano y comparacion de los ejemplares con los Cuba y otros lugares.* Havanna.
- Loven, Sven.  
 1935 *Origins of the Tainan Culture, West Indies.* Goteborg: Elanders Bokfryckeri Akfiebolag.
- Roe, Peter G.  
 1997 Just Wasting Away: Taino Shamanism and Concepts of Fertility. In *Taino: Pre Columbian Art and Culture from the Caribbean*, pp. 124-157 El Museo del Barrio, New York: Monacelli Press.  
 1991a. The Best Enemy Is a Killed, Drilled, and Decorative Enemy: Human Corporeal Art (Frontal Bone Pectorals, Belt Ornaments, Carved Humeri, and Pierced Teeth) in Pre-Columbian Puerto Rico. In *Proceedings of the Thirteenth International Congress for Caribbean Archaeology Held in Curacao, on July 24-29, 1989*, ed. E.N. Ayubi and J.B. Haviser, 854-73. Reports of the Archaeological-Anthropological Institute of the Netherlands Antilles, no. 9. Willemstad, Curacao, Netherlands Antilles: Archaeological-Anthropological Institute of the Netherlands Antilles.
- Roe, Peter G. and Jose Rivera Melendez  
 1995 Recent Advances in Recording, Dating and Interpreting Puerto Rican Petroglyphs. Paper presented at the 16<sup>th</sup> International Congress for Caribbean Archaeology, Basse-Terre. Guadeloupe, July 24-28.
- Rouse, Irving  
 1992 *The Tainos: Rise and Decline of the People Who Greeted Columbus.* Yale University Press. New Haven and London.  
 1952 Porto Rican Prehistory. In *The New York Academy of Sciences, Scientific Survey of Porto Rico and the Virgin Islands*, Vol. 18.
- Sleight, Frederick W.  
 1962 Archaeological Reconnaissance on the Island of St. John, United States Virgin Islands. *The William L. Bryant Foundation American Studies* Report No. 3.
- Taylor, Alan  
 2001 *American Colonies: The Settling of North America.* Penguin Books. New York, New York.
- Vega, Bernardo  
 1976 Comparision of Newly Found Cave Drawings in Snato Domingo with Petroglyphs and Pictographs in the Caribbean Region. *Compte- rendu des Civilisations Precolumbiennes des Petites Antilles, 200-12.* Pointe-a-Pitre, Guadeloupe.

Wild, Ken

- 2001 Investigations of a “Caney” at Cinnamon Bay, St. John and Social Ideology in the Virgin Islands as Reflected in Pre-Columbian Ceramics. *Proceedings of the XVIII International Congress for Caribbean Archaeology*. Grenada.
- 2001 Investigations at Cinnamon Bay and St. John and Social Ideology in the Virgin Islands as Reflected in Pre-Columbian Ceramics. An illustrated version of the above article which can be downloaded at <http://www.friendsvinp.org/Programs/archeol/upd1003.htm>.