

Colonial Conundrums, Cannon Piles and Clear Water

Fall Field School 2011 Investigation of the Catalina Island Wreck,
Dominican Republic



By

Lynn Harris, Calvin Mires, Barry Bleichner, Charles Bowdoin, Robin Croskery, Leland Geletka, Chelsea Hauck, Thomas Horn, Angus McKellar, Jana Otte, Stephen Sanchagrin, Lindsay Scott, Laurel Seaborn and with a contribution by David Van Zandt

Program in Maritime Studies, East Carolina University
Office of Underwater Science, Indiana University



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Abstract

In 2011 Program in Maritime Studies at East Carolina University was invited to partner with Indiana University and assist with further archaeological fieldwork and historical investigations on the shipwreck site believed to be Quedagh Merchant in the Dominican Republic. The illustrious privateer, and accused pirate, Captain Kidd, captured the Indian Surat-built vessel on the east coast of Africa. The team concluded that the distribution of cannon on the site is a signature within the archaeological record that may add to further knowledge of site formation patterns in shipwreck studies - like ballasting and the wrecking process. The small portion of structure excavated during this fieldwork season yielded additional information about building techniques, such as edge to edge plank joinery, associated with traditions in the Far East. ECU investigators also explored the Dominican Republic's management of shallow water shipwrecks and made a few recommendations.

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SECTION I. THE PROJECT AND SHIPWRECK IDENTITY

a. Introduction

In 2007, the Oficina Nacional de Patrimonio Cultural Subacuático (ONPCS) of Dominican Republic invited Professor Charles Beeker, Director of Academic Diving and Underwater Science Programs at Indiana University (IU), School of Health, Physical Education and Recreation (HPER) to investigate what appeared to be a concentration of cannon and anchors associated with a shipwreck on the southeastern coast of the Caribbean nation. The site, first discovered by a snorkeler, is located on the shore of Catalina Island, in proximity to the Dominican city of La Romana (Figure 1 and 2). A local prominent resident of Casa De Campo, who recognized the significance of the numerous cannons, requested the site be properly investigated and contacted Technical Director Francis Soto of ONPCS who, in turn, contacted Indiana University faculty.

The IU research in the Dominican Republic usually involves professors and graduate students from various schools and departments, including the School of HPER, the School of Public and Environmental Affairs, and the departments of anthropology, biology, geology and mathematics in the College of Arts and Sciences as well as scholars from other disciplines and universities.. After initial mapping, Beeker and Anthropology doctoral candidate at IU, Fritz Hanselmann, returned in 2008 to partially excavate the site and establish the identity of the vessel. The team concluded that the archaeological closely matched the historical record associated with Armenian vessel *Quedagh Merchant* (1699) captured by illustrious privateer Captain William Kidd in the Indian Ocean off the East Coast of Africa (Beeker and Hanselmann 2009: 219-226).

Investigators also recovered a single cannon during the field operations and transported it to Indiana, where it is currently undergoing conservation at the Children's Museum of

Indianapolis which received a \$1 million grant from the Eli Lilly and Co. Foundation to support expeditions of the Indiana University team (*Indianapolis Business Journal*, April 2, 2011). The museum staff co-ordinate inter-active and engaging children's exhibits, in addition to tours of the recovered cannon undergoing conservation treatment in the laboratory. There is a unique partnership between the museum and Indiana University's Office of Underwater Science to search for and recover artifacts from other historic ships that are believed to be in the Caribbean. These include the lost fleet of Columbus (1495), excavation of Captain Kidd's *Quedagh Merchant* (1699), the search for Henry Morgan's flagship, *the HMS Oxford* (1668), excavation of *Nuestra Señora de Begoña* (1725), and *Le Marquis de Galliffet* (1770-1783-85) (Children's Museum of Indianapolis E-Newsletter, May 23 2011).

Indiana's work on shipwrecks is further supported by the U.S. Agency for International Development (USAID) that awarded IU \$300, 0000 to turn the Captain Kidd shipwreck site and two others nearby into existing underwater preserves with a view to supporting a model of sustainable eco and heritage tourism. These three shipwreck habitats are comprised of precious corals and other threatened biodiversity in the surrounding reef systems (*Science Daily*, May 2011). The University also offered underwater archaeology technical workshops to heritage professionals in the Dominican Republic (Beeker 2010).

In 2011 East Carolina University's Program in Maritime Studies (ECU PMS) was invited to partner with Indiana University and assist with further investigations on the *Quedagh Merchant* shipwreck site (Figure 3). Principal investigators and PMS faculty Lynn Harris and Calvin Mires led a team of eleven students as part of the program's Fall Field School coursework. The project was minimally co-funded by ECU student fees. Students and faculty contributed personal travel funding.

b. Environmental Overview

Dominican Republic is classified as having a tropical dry marine climate with an average temperature of 32° C at low elevations and an average rainfall of 980 mm. Weather patterns and oceanic currents are primarily influenced by easterly trade winds. May to November is considered the wet season, characterized by high rates of precipitation and chance for severe storms and hurricanes (Geraldles 2003:78-79).

The *Quedagh Merchant* site, on the windward side of Catalina Island, is located in 3 meters of water and subject to high-energy wave action (Beeker 2009:223). Debris from La shoreline washes up along the shoreline of the island, and it is not uncommon to see floating rafts of tree limbs and trash washing over the site. As is typical in tropical waters, exposed artifacts on the surface of the seabed in shallow water are heavily covered in concretion, coralline algae, corals, sponges, and sand.

The reef system immediately surrounding the site is described as a “dense and healthy coral conglomerate,” dominated by species such as *A. palmata*, *A. cervicornis*, *Montastrea* complex, *Diploria* spp., *M. decactis*, *Porites* spp., and *M. mirabilis*. A variety of sponges are also found on the site such as *Xestospongia* spp. and *Cliona* spp. (Geraldles 2003:98; Beeker, 2010:47).

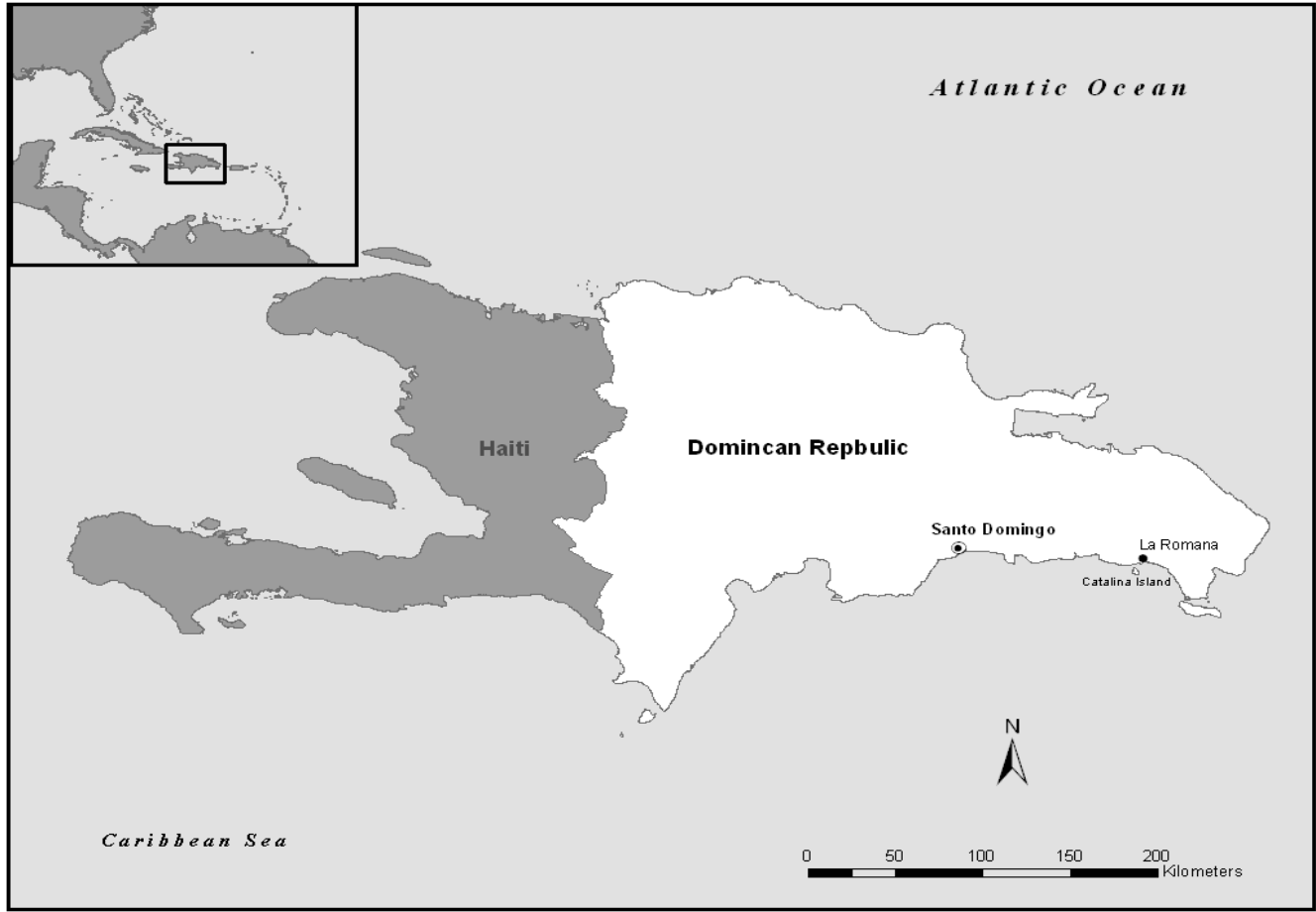


Figure 1. Dominican Republic in the Caribbean Sea

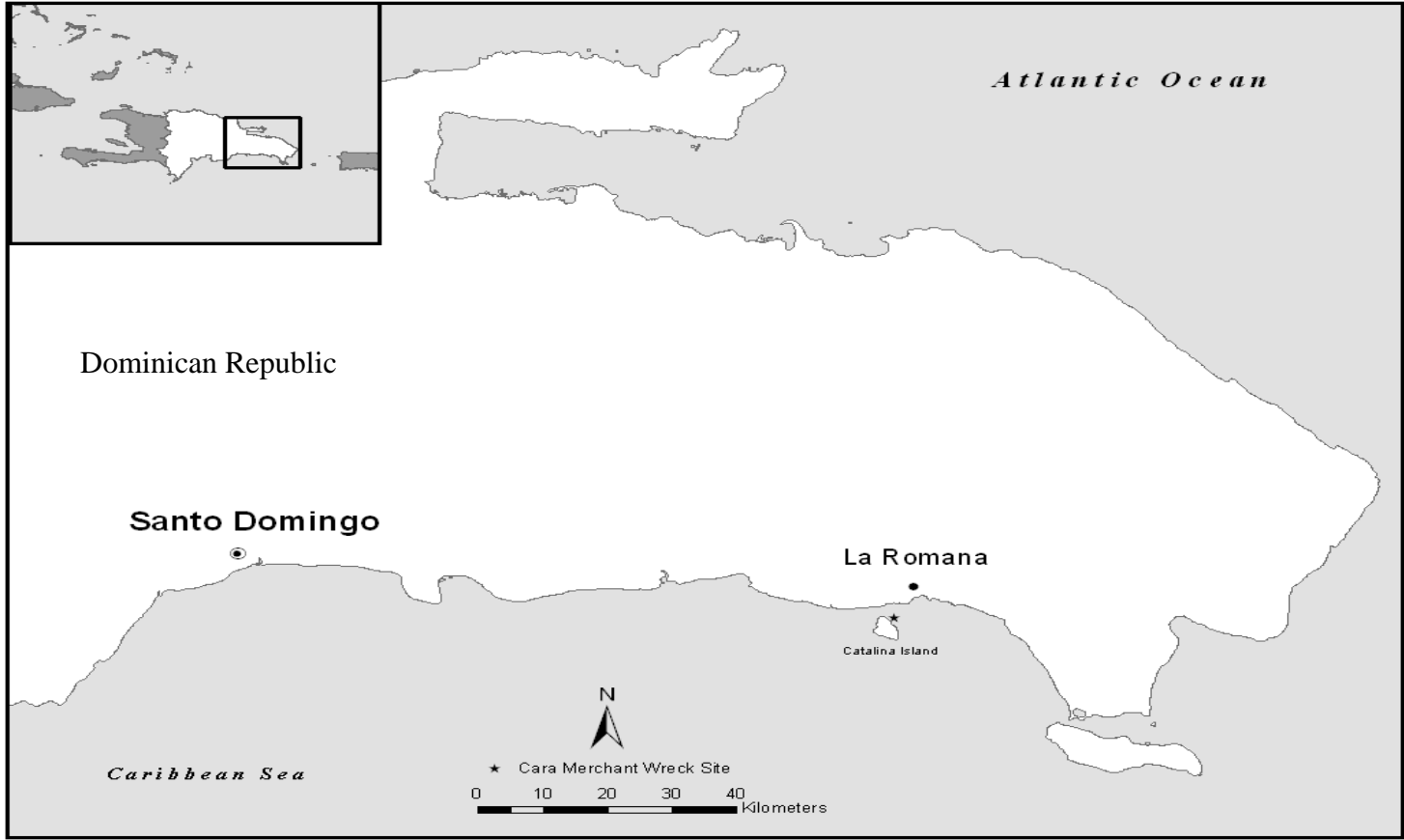


Figure 2. La Romana and Catalina Island



Figure 3. Program in Maritime Studies Fall Field School Team 2011



Figure 4. ECU Students Measuring Plankton Section

c. Theoretical Approaches to Shipwreck Identification

The positive identity of a shipwreck is a critical foundation for framing research questions and making appropriate management decisions. Firstly, selecting a systematic approach to enumerate and substantiate evidence is an integral component of any project, making it a less biased and subjective process. Secondly, the data can be formatted and processed in a way that is more transparent and readily available to the professional community to evaluate, endorse or refute. Scholars including Ahlstrom (1997:37), Babits (1998: 190-192)), Rodgers et. al. (2005:24-37), and most recently Van Zandt (2010) have tackled this methodological process and ensuing problems from a lack thereof.

Ahlstrom's method is a systematic way of comparing archaeological data to historical data to determine the identity of a shipwreck. The method relies very heavily on dating artifacts on the site to establish a time period in which to do archival research. The weakness of this framework is that it is often simply not possible for the archaeologists to reliably date finds, or the work performed on the site is insufficient to establish a *terminus ante or post quem*, or narrow the time period enough to even begin archival research. Scholars rarely have the funding or the time to excavate an entire site and conduct a hundred per cent recovery operation. Instead a wreck's location, dimensions, construction, and cargo can all be used to determine the initial identification candidates and establish very broad time period parameters for historical research.

Babits, who used the Berth 52 vessel (09CH691) as a case study, suggested establishing a multitude of testable hypotheses and sub hypotheses. The identification process included critical assessments of structural and artifactual evidence, in addition to accounts of wrecking events and subsequent site formation processes that supported each hypothesis. Additional, conscious

effort was made not only to confirm, but importantly, also to refute a hypothesis (1998:190-192).

Rodgers et. al (2005) focused on the concept of “Ruling Theory,” whereby a researcher slants or compromises objective observation with a pre-conceived notion of the outcome of the observations using the Beaufort Inlet wreck (identified as *Queen Anne’s Revenge*) in North Carolina as a case study. At worst, it is bias-laden thinking, tending to make data conform to a single hypothesis, with a conscious rejection or modification of ‘unhelpful’ evidence. These scholars all advocated the creation of comprehensive research designs in the planning phase before fieldwork begins, and the use of multiple working hypotheses advocated by Babits (1998) to create strong inferences. Ruling Theory inherently leads to unsubstantiated conclusions with a paucity of non-controversial information from the material culture record to confirm shipwreck identity.

Van Zandt proposed a further extension of multiple hypotheses, by developing and testing a Historic Shipwreck Identification Method (VHSIM) based upon the modified framework used in forensic science for body identification using ‘traditional’ forensic science methodology. Traditional techniques generally consist of combining witness testimony, personal effects and clothing, anthropological and dental data to corroborate or to exclude the identity of the individual’ (Baraybar 2008: 533). The method is typically applied by forensic scientists when mass graves are encountered and cadavers are heavily decomposed and rendered unrecognizable. The framework relies primarily on available PM (post mortem) and AM (antemortem) data. Once the AM data is collected it can then be compared and analyzed against the PM data allowing a determination of identification of each hypothesis made. A matrix with data consistency criteria is developed to aid in the data evaluation and identification process. This incorporates the multiple hypotheses approach as advocated by Babits, but is directed more

internally towards matching AM and PM data sets than considering a large number of other shipwreck possibilities. The proposed identities provide a starting point for the historical record search and are used to develop further checklists for data collection.

The final identification rating scores are defined as follows (Van Zandt 2009:26)

1 - Identification: The historical and archaeological data in all categories where comparisons are possible are consistent in sufficient detail to establish that they belong to the proposed ship and there are no irreconcilable discrepancies. **The shipwreck is the ship proposed.**

2 - No conclusion: The historical and archaeological data in all or part of the categories where comparisons are possible are **not consistent in sufficient detail** to establish that they belong to the proposed ship.

3 - Exclusion: The historical and archaeological data in all or part of the categories where comparisons are possible are clearly inconsistent. **The shipwreck is not the ship proposed.**

d. Van Zandt Historical Shipwreck Identification Method (VHSIM) provided by David Van Zandt

ECU requested an unbiased analysis of the current historical and archaeological available using the Van Zandt Historical Shipwreck Identification Method (VHSIM) to determine if the tentative identification is plausible (Tables 1 and 2). The wreck is located off the Northeast side of Isla Catalina, Dominican Republic. The approximate coordinates are: 18 degrees 22 minutes North and 69 degrees 00 minutes West. It lies in 3 meters of water approximately 25 meters from shore. Archaeological information from this wreck site is limited due to the wreck's recent discovery, site deterioration due to its location in a tidal surge area, shallow water, and a salt

water environment and limited excavation. The archaeological data collected to date is listed in Table 1

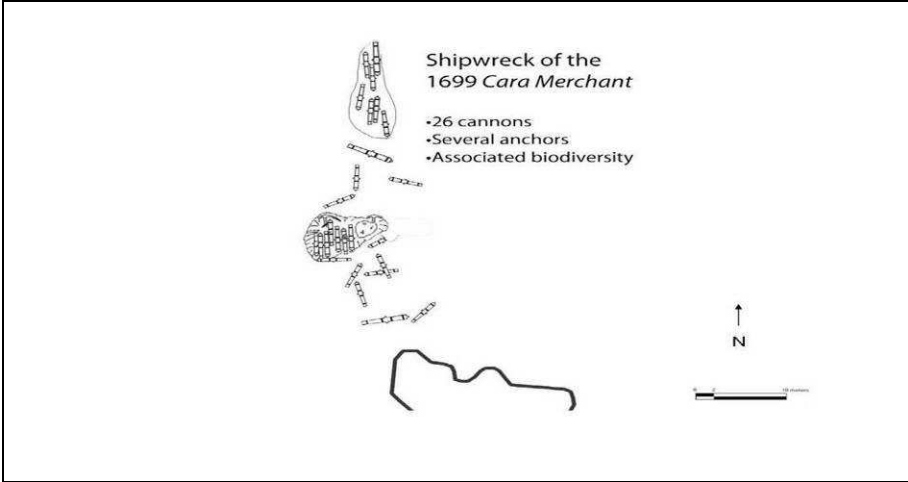


Figure 5. Indiana University Site Plan

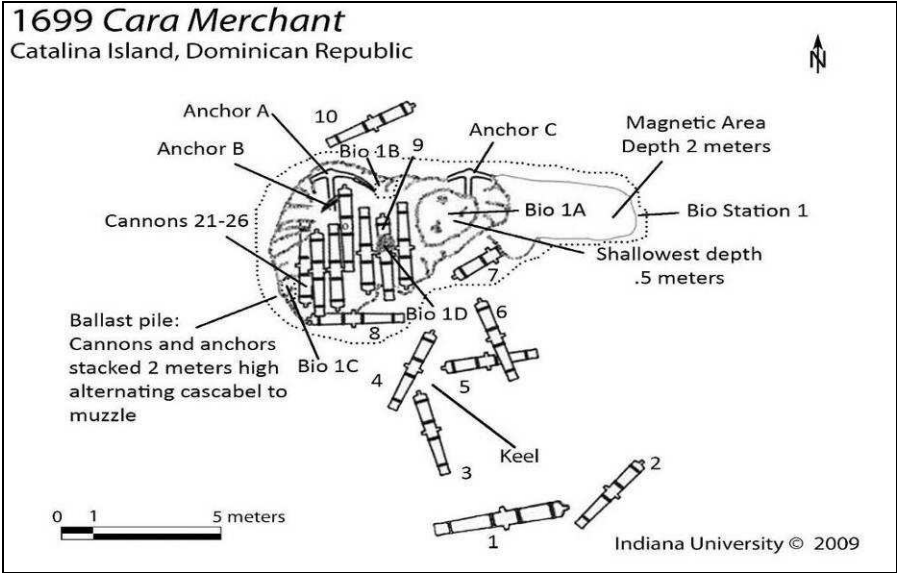


Figure 6. Indiana University Detailed Site Plan

Quedagh Merchant PM Archaeological Data	
Wooden construction	Wood species analysis of hull remains
26 cannon	Ballast stone
Three large broken anchors	Geological analysis of ballast stone
Magnetic anomaly to seaward side	Fastening method of hull
Partial hull remains	

Table 1. PM Data

The *Quedagh Merchant* was a merchant vessel built in Surrat India by the Moors with a rated burden of 400 tons. It was captured by Captain Kidd as a prize off the coast of India in 1698. Eventually the vessel made port at St. Mary's Island, Madagascar where it was loaded with bales of silk and satin, about 80 tons of sugar, 40 tons of saltpeter, and about 80 tons of scrap iron (Appendix 1). Kidd also indicated that he had acquired 14 or 15 spare anchors. While in port the crew added 30 guns from his other ship *Adventure Galley* to the 20 already on board the *Quedagh Merchant*. This totals 50 guns with 30 mounted on deck and 20 loaded in the hold. The *Quedagh Merchant* proceeded to sail to the Isla Catalina, Hispaniola where Kidd left it on the protected side of the island. It was subsequently moved by Bolton to an upriver site, presumably to Hispaniola proper, where it was speculated to be ransacked of its cargo. It was subsequently set afire and cast adrift.

Assessment (AM to PM data)

No artifacts have been recovered or dated. Carbon dating or dendro-chronological dating has been performed. This category is scored a 0.

Vessel Construction and Rigging

Although very little of the vessel remains the joint construction and fastening is consistent with Indian shipbuilding techniques. Three independent wood species analyses have determined the wood as *Tectona grandis* or teak which is indigenous to Thailand, Myanmar, Laos, and India.

Ballast

A portion of the ballast remains found have been geologically analyzed and have been determined to be of India origin. It is highly unlikely that Kidd re-ballasted the ship in the short time of his possession. The ballast is consistent of a ship of India origin.

Dimensions of Vessel

The *Quedagh Merchant* has been reported to have a burden of 400 tons by Kidd. Since Kidd was of English descent it is assumed that the burden (deadweight) he reported was of English measure since he was a Captain and was use to reporting the size of a ship in this way. Using this assumption, an estimation of the size of the *Quedagh Merchant* can be calculated.

Comparing the estimate size of the *Quedagh Merchant* with the IU site plan (Figure 7) reveals that the artifact assemblage recorded, to date, is a good fit with the calculated dimensions.

The deadweight calculation employed for the time period of sinking, 1698, was:

Deadweight (burden) = Length x Breath² / 188 tons. This formula was used by the English between 1678 thru 1835. No historical data on the measurements of the *Quedagh Merchant* have been discovered by Indiana University, but an estimate of its size can be determined from other historical data available for Indian built ships. Two Indian vessels of the time period have been reported to have a length of 115 feet by 42 feet in breath and a length of 136 feet by 41 feet in breath. Using this data an average length to breath ratio can be calculated. This calculation suggests to a ratio of approximately 3.5. Rearranging the Deadweight equation, substituting breath as a function of the length to breath ratio, and solving for Length yields:

Length in feet = $(188 \times (\text{Length to Breadth Ratio})^2 \times \text{Burden in tons})^{1/3}$ Evaluating this equation based on a burden of 400 tons yields a length of 97.3 feet (29.7 meters) and a breadth of 27.8 feet (8.5 meters) thus giving a good estimate of the dimensions of the *Quedagh Merchant*. Although at this time the archaeological data is sparse, the available data comparison is consistent and the category is scored a 1.

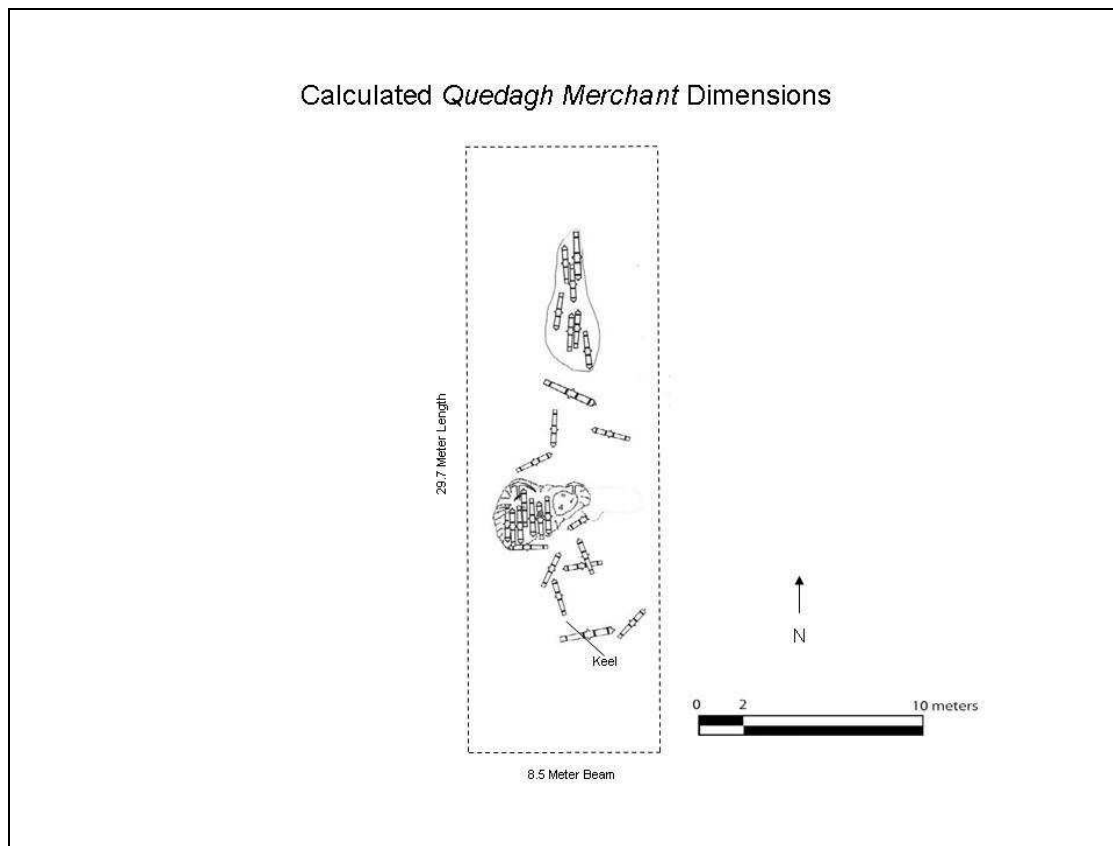


Figure 7. Site plan and Calculated Dimensions of the Quedagh Merchant

Cargo and Cargo Handling Equipment

The cargo reported to be aboard the *Quedagh Merchant* were bales of silk and satin, about 80 tons of sugar, 40 tons of saltpeter, and about 80 tons of scrap iron. Also 14 or 15 spare anchors and 50 cannon, 30 mounted on deck and 20 loaded in the hold. To date 26 cannon have been

discovered at the site with nine or ten of these cannon and three anchors in a configuration which suggests that they were stored below decks. No silk, sugar, or saltpeter or shipping containers for this cargo has been discovered. This is consistent with the assumption that they would have been removed and sold before the ship was set afire and cast adrift. Since this site has not been completely excavated and one magnetic anomaly has been discovered it is assumed that the remaining scrap iron cargo reported is still below the surface of the anchors and cannon that have been found to date. It would be prudent to put the cannon on top of any scrap iron as to keep them as dry as possible and their inherent worth is far more than scrap value. It would again be prudent to put the spare anchors that were reported on top for easy access in case of their need in bad weather or a parted anchor line. Although at this time the archaeological data is sparse and several assumptions about the dispersal of the cargo have been made, the available data comparison is consistent and the category is scored a 1.

Crew Personal Effects

No crew personal effects have been found to date. This category is scored a 0.

Location and Condition of Shipwreck and Site

The *Quedagh Merchant* has been reported to be left on the Western side of Isla Catalina then moved by Bolton to a river across from Isla Catalina. (Zack reported Rio Dulce that reference or any other reference that indicates which river it is. It would also be convenient to know what time of year Bolton burned her for wind direction.) Two months after Kidd's departure the vessel was burned and drifted out to sea. There are three possible rivers that Bolton could have taken the *Quedagh Merchant* - the Rio Dulce, Rio Cumayasa, and Rio Chavon. The present prevailing winds at La Romana, Dominican Republic, which is the closest city to Isla Catalina

emanate from May – September, ENE – ESE. The currents in the Caribbean Sea flow in a westerly direction (Figure 8).

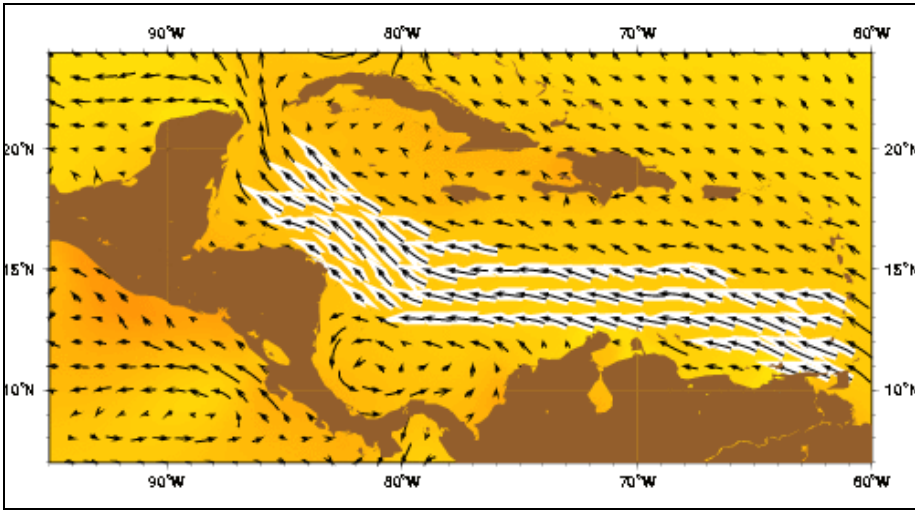


Figure 8. Current Flow in the Caribbean Sea

Of the possible Rivers that Bolton could have taken the *Quedagh Merchant* the Rio Cumayasa can be eliminated because it is West of Isla Catalina. Of the two rivers left both are possibilities for where he could have set the ship adrift from (Figure 9).



Figure 9. Possible Rivers where the Quedagh Merchant was set adrift

The most likely possibility is the Rio Chavon as it is the most Easterly River. This is supported by the current information available and the prevailing wind direction. The prevailing wind direction is supported by the fact that the La Romana International Airport (LRM) runway was built in an East to West orientation (Figure 9). Although the Rio Chavon is the likely candidate the Rio Dulce cannot be excluded because the weather conditions at the time of sinking, i.e. local currents and wind conditions are not available and also because it is closer and has a depth of 10-15 meters. This assumption is further supported by the orientation of the shipwreck.

The wreck site is oriented North to South. This is a possible indication that the ship was blown to that location from the East. This is supported by the fact that a vessel afloat and not under sail will swing perpendicular to the wind under all occasions. Thus a North to South orientation is a good indication that the wreck was blown there from the East. The location the wreck site is consistent with the historical record. A search of shipwreck databases and the historical record show no other ships of this type are known to be lost in this area. This category is scored a 1. The condition of the shipwreck and site is consistent with the AM data. This category is scored a 1.

Final Shipwreck Identification Scoring

Completing the Shipwreck Identification Matrix (Table 2) for the wreckage found yields a final score for the candidate ship for identification, the *Quedagh Merchant*, of 1. This rating is identification: The historical and archaeological data in all categories where comparisons are possible are consistent in sufficient detail to establish that they belong to the proposed ship and there are no irreconcilable discrepancies. The shipwreck is the ship proposed.

Table 2: *Quedagh Merchant* Shipwreck Identification Matrix

h.

Shipwreck Identification Matrix	
Candidate Ship for Identification	Quedagh Merchant
AM to PM Shipwreck Identification Categories	Data Consistency
Dating	0
Vessel Construction and Rigging	1
Cargo and Cargo Handling Equipment	1
Crew Personal Effects	0
Location	1
Condition of Shipwreck and Site	1
Final Scoring (Highest number in right hand column)	1

Research Questions

The preliminary identification of the *Quedagh* leads to the consideration of separate and overlapping historical and archaeological research questions, some of which are in the scope of the fieldwork conducted by ECU.

- Exploring why the wreck is advertized and promoted more prominently as a pirate ship, rather than a privateer or Indian Ocean merchant vessel to the public? What colorful symbolism is associated with a pirate ship in the view of the public and the media?
- Investigating the economics of British-Indonesian shipbuilding. Why did the British build ships in India and what was the social and economic dynamic in this collaborative or exploitive international labor market.
- Documenting and interpreting colonial period ship design. Was the ship English, East Indian or the fusion of two, or more, ship building designs and traditions? Is this evident or not in the

archaeological record? How does it reflect the materials or wood available, environmental adaptations to the Indian Ocean, or the experiences of the builders?

-Assessing the armament logistics of a privateer ship versus a naval ship. Is there a detectable and consistent signature in comparative ordnance assemblages like the *Queen Anne Revenge*?

Comparing the site formation processes, especially the cannon layout patterns with other merchant shipwrecks of the time period. Was this a stowage pattern, a ballasting pattern or a wrecking event?

SECTION II. HISTORICAL BACKGROUND AND THEMES

a. Pirates in Popular Culture

He would be a pirate! That was it! ...How his name would fill the world, and make people shudder! How gloriously he would go plowing the seas in his long, low, black-hulled racer, the *Spirit of the Storm*, with his grisly flag flying at the fore!

~ Mark Twain, *Tom Sawyer*, 1875

Typical imagery of pirates in popular media show the tanned and swarthy sailor covered in scars and tattoos and perhaps a peg leg, a hook or an eye patch, with a brace of pistols in a sash and sword brandished ready to board another ship. This iconic picture evolved from accounts published during the “Golden Age of Piracy” (1650 to 1730) influencing novels, illustrations, even songs and continued through the ages to film and television. Many of those men, who stood trial as pirates, became infamous as the stories grew around their names and their representation as courageous rebels or misunderstood adventurers became ingrained in the cultural mindset. The story of Captain William Kidd epitomizes this transformation from unrepentant villain to unlucky gentleman privateer caught up in the changing tides of political favor.

The first accounts in the eighteenth century, often written in the style of morality plays or sermons, condemned the evil actions of those committing piracy. One of the most influential early sources, *A General History of Pyrates* published in 1724 by Charles Johnson, relates the tales of over a dozen captains (and two women) accused of that sin. The final chapter tells of the last voyage of Captain Kidd in 1696 and his subsequent trial in London. The stories of "bold, swashbuckling pirates... captured the public imagination" (Swanson 2011) and the book sold extremely well, going through several editions in the 1720s and 1730s, and is still available as a reprint today.



Figure 10. Book of Pirates, Howard Pyle, 1887

Yet even before going into print, the tales of Captain Kidd fomented and grew when he returned to New England from Madagascar. Though Kidd maintained that he legally took the prize *Quedagh Merchant* and returned to New York with the purpose of clearing his name, Bonner (1944) outlines how the “clamors and false stories” of the day precipitated into the dastardly reputation that Kidd did not deserve. In the summer of 1699, several pirate captains including Giles Shelly, Thomas Bradish, and James Gillam arrived in Boston or New York to find themselves no longer afforded the protection by port officials who had previously condoned the black market in East India pirate goods (Bonner 1944:180). The journalist Duncan Campbell reported the latest news about his friend Kidd, as he acted the go-between for the Captain and the Earl of Bellomont. The accounts of who he saw aboard, such as the pirate Gillam, and of other pirates who arrived, became entwined with Captain Kidd’s in the mind of those following the reports (Bonner 1944).

Among government and military, letters flew in attempts to catch the pirates, each one seeming to exaggerate more than the previous. Rumors of the vast treasure of Captain Kidd helped this spread and became confused with that of other pirates and their confiscated goods, such as those of Shelly. The testimonies of the people who came in contact with Kidd, detailed lavish gifts and valuable goods such as gold cloth and jewels being stored for safe-keeping (Bonner 1944). Samuel Sewall charged with the task of inventorying the captured goods once Kidd was in jail, continued to pass along the gossip to friends Even the Rev. Mather Cotton wrote of his preaching to the pirates held in Boston jail (Bonner 1944:194). As Bonner claims, Kidd’s name soon became inextricably linked with piracy.

Much has been written on the economic impact of pirates, and yet current research on the Carolina coast suggests that their affect tended to more political and cultural impressions (Swanson 2011). Politicians used the attacks by pirates as part of their agenda to receive more

protection from the Crown. From the *General History of Pyrates* and other accounts of the pirates of that era, authors spun yarns that romanticized the pirates. The public voraciously bought up the books.

In the *Adventures of Tom Sawyer*, the protagonist wants to be a pirate because they take what they want and do as they please. Published in 1876, Mark Twain looked back at the era before the Civil War and the strict measures then enforced by the federal government, remembering with nostalgia a time of frightening but unregulated freedom (Skowronek 2006). The author’s description of the “binary opposition” in how they must act is seen in storybook pirates that, though at times likeable, function as the antagonists.

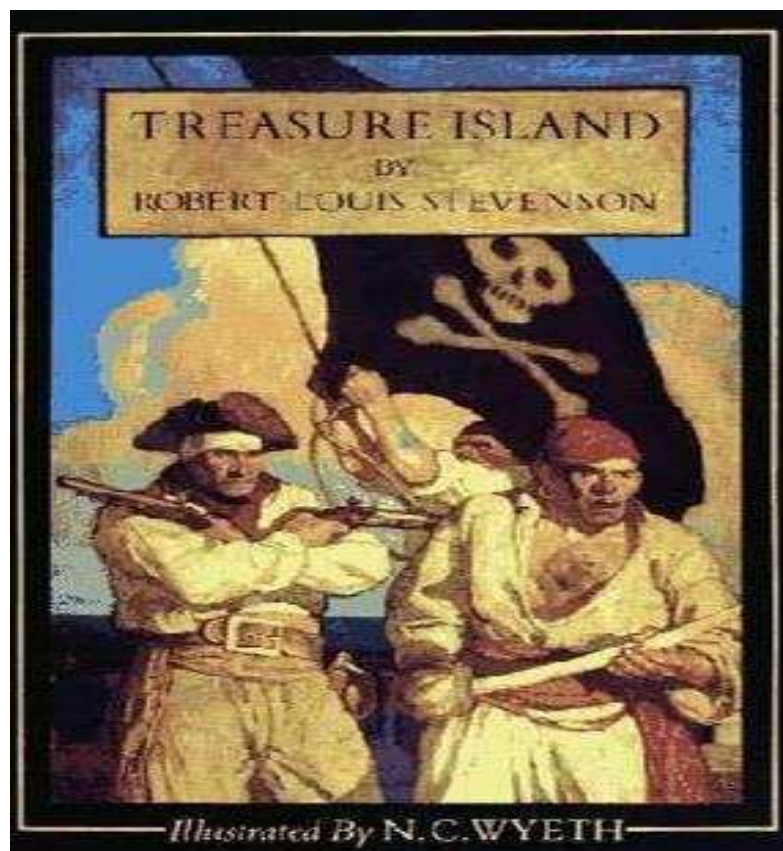


Figure 11. Treasure Island, N.C Wyeth, 1911



Figure 12. Private Collection, Captain Kidd, 18thC portrait

Both *Treasure Island* (1883) by Robert Louis Stevenson and *Peter Pan* (1904) by Sir James Barrie further defined the image of pirates. The later introduces a captain with a hook for a hand that was eaten by a crocodile and the former, peg legs and parrots that squawk, “Pieces of eight” (Babits et al. 2006). These caricatures may scare children but in a way the deformities temper their fearsome violence and unpredictability showing they can be vulnerable. A contemporary painting of Captain Kidd shows him powdered and wigged in the style of the time with no visible deformities. Despite this deceptively calm portrait, he is found guilty of the tempestuous murder of Moore, the Gunnar: “Words arose between them, and Moore told Kidd, that he had ruined them all upon which, Kidd, calling him dog, took up a bucket and struck him with it, which breaking his skull, he died the next day” (Johnson 1724).

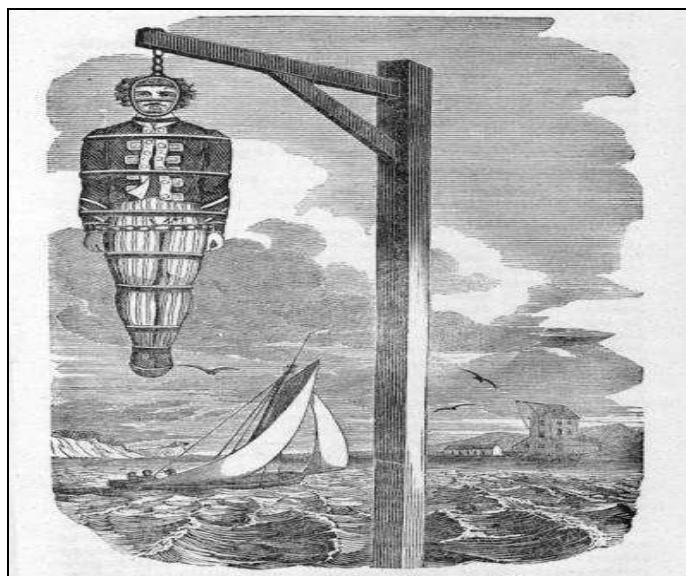


Figure 13. Pirates Own Book, Charles Ellms, 1837

The exploits of pirates became memorialized not only in books but also in poetry or song. Sea shanties, used aboard ship to keep the crew in time while hauling lines, became reworked into the sagas of the wicked pirates. The traditional song “Captain Kidd” echoes the theme of penitence by the condemned man, although the published account does not support this. Kidd went to the gallows swearing his innocence. As sung by the band Great Big Sea, this catchy tune would be easy to memorize at the time of popularity. In a time when the majority of the populace were illiterate, songs would be passed along and quickly reach the masses to get the message out that piracy would not be tolerated.

As fashions changed, the illustrations in subsequent editions of books became updated to suit the current styles of dress (Babits et al. 2006). The artists Howard Pyle and N.C. Wyeth created scenes of typical pirate actions: flying the ‘skull and crossbones,’ making prisoners walk the plank and bury treasure. These illustrations became images that would be taken up in film and television. Although, walking the plank was more fiction than history, the concept endures in popular media. The director/screen writer uses this plot device in the first *Pirates of the*

Caribbean movie to heighten the moment of danger, and prolong the suspense while getting in some more character revelations through dialogue.

When film started as a medium of entertainment, pirate stories became some of the first flicks including the infamous *Captain Blood* (1935) with Errol Flynn. Many classics of the silver screen involved tales without historical accuracy of William Kidd that demonized, ridiculed, or presented him as hero-lover, from the 1907 *Captain Kidd and his Pirates* that follows a group of mischievous children to the 1953 Abbot and Costello film in which they meet Kidd, and the 1954 *Captain Kidd and the Slave Girl* that has him sword fighting the evil Bellomont. The current popularity of the *Pirates of the Caribbean* movies seems to stem from the emphasizing the difference between “good” pirates such as Captain Sparrow played by Johnny Depp and those with no moral compass, while the overarching enemy remained a corporation as it stripped magic from the world. This theme provides the audience an association with the underdog fighting for democracy.

The fascination with pirates has extended to videos and card games, names of beverages, and place names. In the 1980s, “Sid Miere’s Pirates!” debuted and current multi-player games include “Pirates of the Burning Seas” both of which allow players to imagine the days of brigands on the seas. Captain Morgan’s rum is a familiar name to sailors, and recent find of one of his shipwrecks prompted the company to name a type of their rum for the archaeologist who discovered it and even fund the project (Swaine 2011). Those enamored of pirate lore or claiming them as ancestors continue to name locations for these buccaneers, such as the place name Kidd’s Beach in South Africa. The “Captain Kidd” pub exists on Wapping Street, very near where in 1701 the man was executed, and then his body tarred and hung in chains at Tilbury Point on the Thames River.



Figure 14 .The Book of Pirates, Howard Pyle, 1903

All of these references in the popular culture lead to the continued allure of pirates and the possibility of hidden loot. The search for booty remains a key factor in the destruction of archaeological evidence on sunken ships. Salvors continue to destroy data glorifying their quest to make a profit in documentary films such as the *Quest for Captain Kidd* (2001) featuring Barry Clifford and his search for *Adventure Galley* in Madagascar. The myth of buried treasure on islands fuels continued searches for Captain Kidd's supposed hoard from the South China Sea to Oak Island in Nova Scotia which appears booby-trapped to protect what lies beneath (McDonald 1964). In reality, profits made from pillaging the pirates usually spent on wine and wenches preferring the immediate gratification to long-term savings plans.

Pirates will remain a popular icon in our culture as long as the resonance that reflects archetypes in the world today continues. The legends evoke images of freedom in a simpler time. Captain Kidd as one of those characters plays out his role in our imaginations as villain or savior. The pirates endure as representations of adventure, freedom and a rough democracy to bequeath in books, song and film to future generations.

b. Captain Kidd: Conflict and Connections with Indian and Armenian Maritime

In the late seventeenth century, the north-west Indian province of Gujarat experienced an expansion of maritime trade. The loosening of Portuguese control over Arabian seaports created profitable opportunities for trade with Basra, Hormuz, and especially Mocha, while seaborne trade with Bengal and Calcutta had begun to undercut the traditional land routes. Surat, located on the Gujarati coast, became the major entrepot on the subcontinent, serving as the center of trade not only for these east-west maritime routes, but for Indian trade goods arriving from the Indus and Ganges (Arasaratnam 1994:55-89).

Due to the complexities of international exchange, which demanded wide-ranging contacts and the mastery of multiple languages and the nuances of culture, trade in the Indian Ocean during the seventeenth century was dominated by Armenian merchants and financiers. The Armenian diaspora had sent representatives of this tiny nation throughout Turkey, Persia, Russia, Arabia, and India, and Armenians were even found in such far-flung places as Venice, Tibet, Sweden, Germany, Poland, and the Spanish Phillipines. Only the Jews of Europe could claim such an enormous mercantile empire (Braudel 1979:154-7, Arasaratnam 1994:185-6).

A major impetus for this expansion of trade came from the involvement of the Mughal royal family and nobility, who saw investment in the Gujarati merchant marine as way of supplementing their private incomes. Royal investment benefited the merchants in several ways. The emperor could be relied upon to offer his protection as a way of safeguarding his investment, and the Mughals were known to use their power to create favorable trade conditions. For example, European ships were not allowed to load goods until Gujarati ships had filled their holds. Mughal investors were inclined to favor the Muslim port of Surat over southern ports because of an ongoing Hindu revolt that had swept over the Dekkan Plateau during the long reign of Aurangzeb (1658-1707).

Indian shipbuilding techniques were in flux. Although European ships had plied Indian waters since the arrival of Vasco da Gama in 1498, it appears that Indian shipwrights did not begin adopting European shipbuilding technologies on any significant scale until the second-half of the seventeenth century. The monsoon trade pattern created much safer sea-conditions than those faced by European ships, which were built to withstand the storms of the North Atlantic and the Cape of Good Hope. In addition, labor was inexpensive and wood abundant. Teak, the wood of choice on the Indian Ocean, was durable and more resistant to decay than European oak. European shipbuilding techniques were therefore not manifestly superior for trade in the Indian Ocean. Indeed, in some cases, such as the use of pitch-smearred rabbeted seams against the European preference for caulking with oakum, Indian technology appears to have been superior (Quaisar 1982:20-33).

Nevertheless, shipwrights were beginning to make more use of iron in construction. By the 1670's iron anchors were being sold in Surat, replacing the stone killick. Indian ships began to incorporate bilge pumps as early as 1652. The late 1600's also saw the increasing adoption of lead sheathing and of sacrificial wooden planks. Finally, Indian ships had begun to carry cannon. Indian-made cannon were of a very inferior quality, and records indicate that most Indian ships would surrender to a European pirate without a shot fired, as would be the case with the *Quedah Merchant* (Quaisar 1982:23-34,43-4).

The English East India Company (EIC) occupied a tenuous position in India. Responding to the Dekkan revolt, the EIC decided to transform its ports into autonomous enclaves under company rules, with their own customs-collections and militias. Most offensively to the Mughals, they began to mint their own coins with pictures of European monarchs on the face. The company's hubris reached a climax in an ill-conceived war with Aurangzeb in 1687, which nearly brought about their expulsion. Meanwhile the English

government, frustrated by the long arrears of the struggling company, chartered a second East India Company. The two companies engaged in ruthless and ruinous competition, which allowed local lords to play one against the other (Lyll 1968:38-41,56-7).

At this time, English piracy in the Indian Ocean reached its peak. In 1695, pirate Henry Bannister captured the *Ganj-I-Sawai*, the largest ship in the Gujarati merchant marine on its return from a pilgrimage to Mecca. Aurangzeb was horrified to learn that the wives of devout pilgrims were raped while the ship was pillaged. The Muslim ruler acted decisively, interdicting all trade with Dutch, English, and French traders. The European nations were forced to sign a treaty guaranteeing the protection of Mughal shipping, with the Dutch required to send convoy escorts for ships heading west into the Arabian seas and the English pledging to guarantee the safety of ships heading south along the Malabar coast (Richards 1993:241).

On January 30, 1698, the *Quedah Merchant* was returning to Surat from a trading voyage to Bengal when it was taken by Captain William Kidd. Discovering that the ship had French passes, Kidd declared his capture a legal prize per the requirements of his privateering commission. The truth was far more complex. The ship was Gujarati, and was owned and manned by Indians. It had been hired by a consortium of Armenian merchants, in a deal which had been brokered by an EIC official. Most importantly, it became apparent that the deal was largely funded by a Muklis Khan, a powerful nobleman in the Mughal court. Kidd, whose commission authorized him to “seize, and take all Ships, Vessels, and Goods belonging to the French King, or his Subjects, or Inhabitants within any of the Territories of the French King,” had managed to simultaneously steal from the Mughal court, the Gujarati merchant marine, the powerful Armenian merchant class, and an Englishman- and he had done it on the Malabar coast, the very place that the EIC had pledged to protect from piracy. Ironically, the French passes appear to be the only thing French on the boat, and they may have been carried in

conjunction with Dutch and English passes as a kind of general permission to sail in Indian waters (Zacks 2002).

Even more embarrassing, Kidd had acted under the explicit authorization of the king of England. The EIC was justifiably terrified. If the Mughal emperor believed that such egregious acts of piracy were condoned by the king himself, the EIC could be driven from India- a devastating blow for English colonial interests. Kidd now had to be brought to justice, regardless of the legal niceties of his commission. Kidd was declared a pirate.

Captain Kidd's story reflects the ambiguities of privateering. In 1695, Kidd received a privateering commission from the English king to attack French vessels and pirates in the Indian Ocean. His voyage was financed by four wealthy English lords in a deal brokered by the Governor of New York, Lord Bellomont. Kidd, after two years of fruitless privateering, was facing financial ruin. His crew was growing restless, as their pay depended entirely upon making a capture. Kidd was therefore less than discriminating when he encountered the Quedah Merchant, believing that the French passes and the immense value of the prize would clear up any legal objections (Zacks 2002).

En route to the Atlantic, Kidd stopped at St. Mary's Island near Madagascar, where the majority of his men mutinied. Believing his own ship incapable of making the return voyage, Kidd transferred his remaining crew onto the Quedah Merchant and set sail for the West Indies, carrying a cargo of silk, satin, saltpeter, and scrap iron. While in the West Indies Kidd discovered that he was wanted for piracy, and he sailed north to face trial, leaving the Quedah Merchant under the care of Henry Bolton near Catalina Island off Hispaniola.

Unfortunately for Kidd, there could be no forgiveness for his piracy. His actions had not only outraged the Mughal emperor and endangered the EIC, but had implicated the king and powerful members of the Whig faction. Kidd was convicted, executed, and his body placed in a

gibbet as a warning to pirates everywhere. Henry Bolton, upon hearing of Kidd's capture, set the *Quedah Merchant* afire in the mouth of a river near Catalina Island. The flaming ship was last seen drifting out to sea.

c. Seventeenth Century Shipbuilding and Techniques Practiced in India: Colonial Correspondences and Foreign Traveler Reports

The pioneering twentieth century work on Indian shipping was produced by R. K. Mookerji (1912) covering the ancient and medieval periods, W. H. Moreland (1923) in his two major works on the economic history of Mughal India, and the third pivotal effort by Brij Narain (1929) who challenged many of the interpretations conclusions drawn by Moreland. In 1968, Jan Qaisar published a comprehensive article on shipbuilding in the *Indian Economic and Social History Review* (Qaisar 1968:149-170).

There is a plethora of information about maritime activity in India, containing specific information about Armenian shipping in London archives. There are more than 1,700 mercantile documents from the 1730s and 1740s (mostly business letters and correspondence) confiscated by the British navy in India and shipped to England to be presented as evidence in a high-stakes trial in London. The letters were written by Armenian merchants and their families residing in New Julfa/Isfahan to their agents and correspondents in India. Sebouh Aslanian, scholar of the Armenian diaspora, presents enlightening information about the role of the Armenians within the East India English trade in the seventeenth century (Aslanian 2004:37-100).

According to Kidd's testimony, the *Cara Merchant* was a 400-ton merchant vessel built in Surat, India (TNA, CO 1699:5/860.197). The seaport of Surat, situated on the north west coast of India on the banks of the Tapti River, had the reputation of a long tradition of

shipbuilding catering to Mughal emperors, the Portuguese who settled at Mahim in 1509, and the English merchants who established East India Company's marine in 1613 (Kochkar 1994:1). It became a major commercial city of India, and seat for the imperial mint. As the major port on the west coast of India, Surat also served as the port for the Hajj to Mecca. Beginning in the 1620s, the British established Bombay as a shipbuilding center attracting Surat shipbuilders by the increased business opportunities. On the Western Coast (on the gulf of Cambay), the industry flourished at many places, especially at Goa, Broach, Diu Nosari, Khnmbnyat and Cindevi (Qaiser 1968:160).

Cindevi was especially well known for teak, also exported to other places for shipbuilding. The wood was considered not only the best, but the cheapest available. Ships built here developed such a good reputation that in 1621 the Dutch started purchasing Indian ships proclaiming that they were the first (Europeans) to buy these "native" ships. The port of Nosari exported timber, while Broach imported it via the inland river route from distant depots. Pitch, tar, ropes and iron nails do not seem to have been produced in this region, probably imported from Kerala or Malabar (Qaisar 1968:160).

In 1625 the English and the Dutch jointly raided Bombay. They found two boats under construction which they promptly burnt. When Bombay passed into the British hands, repairs and shipbuilding continued and increased in volume. The British not only repaired their merchant ships, but also built new ones to deal with the menace of piracy and to meet warfare needs against European competitors. The shipbuilding endeavors were so significant that the Portuguese attempted to obstruct English shipbuilding by blockading timber supply routes. Mughal authorities were also concerned about the exodus of their skilled ship carpenters to Bombay from Surat (Kochkar 1994 :10).

Ships' carpenters received considerably lower wages in India in the seventeenth century than those of their counterparts in Amsterdam and England. In 1622, English factors sent five carpenters on contract from Broach to Surat. The chief carpenter was paid one *mahmudi* (16 *dams*) per day, and the others three quarters of a *mahmudi* (12 *dams*) each per day. Amsterdam ships' carpenters in 1692 received 21 to 36 *stuyvers* a day according to the season. The summer wage was one third higher than the winter" (One *rnahrnudi* being equivalent to 10 stuyvers). The wages of the four Broach carpenters amounted to 7 stuyvers; and payment to the chief to 10 *stuiyers* per day. In comparison to the Dutch wages, these equal around 1:3 and 1:2 respectively. In 1668 a higher wage was paid to the ships' carpenters in Bombay compared to Broach or Surat, *i.e.* 1s. 8d. (33 3 *dams*) to the chief workmen, while labourers get only 3td. (2 9 *dams*). A ships' carpenter earned more than a general carpenter engaged for house-building purposes whose wage was 7, 6, 4 and 3 *dams* per day, according to his skill grade. A chief sawyer was paid 2 to 23 *duwis* (according to the species of wood) for sawing one cubit *gaz*, and 2 *dams* with food (Qaisar 1968:164).

Lower costs for shipbuilding labor, quality timber like teak and the technical skills of the Indian builders were all important incentives for the Europeans. By the end of the century English factors at Bombay (1668) still urged their superiors to get their ships built in India. One of the supporting reasons the factors listed was that "the carpenters wrought very cheape, substantial, and strong, of planke let into each other.. ...this is to our knowledge very lasting, and admits of noe caulking." This was often done by "letting the planks into each other and making them tight by applying a poultice of tarred cotton beforehand" After this, the planks were nailed or spiked—"What is called rivetting worke." Apart from wooden nails or pins, iron nails were extensively used in ship-building in India. Not all the vessels were necessarily nailed with iron,

especially smaller sea-coasting and river vessels, where cords and ropes were used to join the planks securely (Qaisar 1968: 153).

The next step, the British observed, was to smear the planks with indigenous pitch or tar, and lime, with the double purpose of stopping or sealing up seams and preserving the wood. Pitch in the “Eastern parts” was made by mixing two-thirds of *dummur* and one-third of oil well boiled together, which was “not inferior to the best we use for our shipping in England.” Oil extracted from fish and mixed with other ingredients was also used in daubing the planks. Lime (Chuna) was applied at least once a year, “which is done in one spring (tide)..” (The Indian word *chum* was anglicised into “chenam” and “chynaming” in this period). This practice was accepted by the Europeans in India. Lime served as a protective coating for wood against seaworms, especially in the gulf of Cambay, whose seaworms had attained special notoriety for the damage they caused. For further protection, the vessels were sheathed, usually by another course of planks (Qaisar 1968:153).

Foreign observers also commented that Indian artisans and ships’ carpenters were also receptive to learning new techniques of ship-building brought by the Europeans. They became so expert by their diligent observation of the European techniques that they could even convert an Indian-built ship outwardly “after the Christian manner” by fitting her properly” with the planks of various sizes so joined so skillfully with the minimum of space between the hull plank edges. Assessing the traveler’s reports and correspondences, it appears line of distinction was drawn sharply between the indigenous and European methods of ship-building by the Indian technique of rabbetting hull planks tightly together versus caulking. Indian carpentry was of such a high quality that seams between the planks were barely evident, and therefore any further attempt to make the vessel leak proof was simply redundant (Qaisar 1968: 154).

Fitz Marurice, a traveler marveled at Indian shipbuilding commenting:

The Ship Carpenters at Surat will take a model of any English vessel, in all the Curiosity of its Building, and the most artificial instances of workmanship about it, whether they are proper for the convenience of Burthen, of quick sailing, as exactly as they had been the first Contriver. The wood with which they build their ships would be very proper for our Men of War in Europe for it has excellance, that it never splinters by force of the Bullet, nor is it injured by the violent Impressions beyond the bore of a shot” (Bulley 2000: 11).

Rabbet was one of the methods used sporadically for ship-building projects in European shipbuilding. It became unpopular in Europe completely only by the end of the first half of the nineteenth century. Indian shipbuilders always took measures to stop up the seams by using various substances despite lack of caulking. Rabbeting, was not prevalent in European-built ship bottoms; or that at least, the major part of the ship was not rabbeted as in India. Quite to what extent the Indian and English exchanged skills and ideas is not clear, but is alluded to in the literature in numerous occasions.

SECTION III. ARCHAEOLOGICAL METHODS

a. “Rapid” Assessment Survey

Students conducted individual assessment snorkeling surveys of the site on the first day (7 September 2011) sketching rough preliminary maps of the area to better acquaint themselves with the site. features. This assessment familiarized students with the underwater environment, extent of the site, range and stability of archaeological material (Bowens 2009: 114).

b. Compass Bearing and Length Measurements

The team took magnetic compass bearings relative to the forward direction of each cannon. While this was achieved by swimming approximately 1 meter above each cannon, ferrous material is well known to skew readings by as much as 180 degrees (Barber and Arrott 1988:

2883; Duyvendak 1938: 235). Students compared their readings of several days with those taken from previous investigations. Others tasks included measurements of length and diameter of the cannon at several locations: overall, muzzle to trunnion, trunnion to cascabel, and muzzle, trunnion, and breach diameters. These measurements were conducted on several different occasions throughout the work period

c. Baselines, Offsets, and Trilaterations

The team laid two baselines from datums A –B (east) and C-D(west) running in a north-south direction on either side of the main deposition of cannon or “cannon pile” (numbered 21 to 25). Baseline A extended 30.95 meters on the east side of the cannon pile and baseline CD extended 20.23 meters on the west side of the pile. Datum C was located 8 meters to the south-west of datum A, and datum D lay 13.18 meters lay north west of datum B (Figure 15). The team took trilateration measurements from the four datums to the permanent historic marker (GPS co-ordinate) to assist future researchers to re-establish the baselines for further mapping (Figure 15). Using offset measurements, from both the A-B and C-D baselines, towards the cascabel and muzzle extremities, students mapped the locations of cannon. To verify some of the offset measurements, team members took supplementary trilateration measurements between proximal cannon groups. Other teams mapped the closely packed cannon pile situated on the southern portion of the main debris field (Figures 20 and 21).

d. Depth Measurements and Profile

In order to establish the topography of the site, students took depth measurements at various locations throughout the site using digital depth gauges. A temporary datum was established at the highest point of the main cannon pile, and depth measurements were taken at 1 meter intervals along the cardinal directions. Additionally, depth measurements were taken at each

datum (A, B, C, D) and at various locations along each baseline. These measurements were used to create topographic and profile views of the site (Figures 20 and 21).

e. Timber Recording

Prior to recording the timbers, the project team members moved large rocks and other debris away from targeted areas. Hand fanning and air-lifting were the main excavation techniques. Using metric tape measures, team members recorded sections of the hull and individual timbers noting fastening patterns, sided and moulded dimensions, evidence of burning and areas of sealant, possibly lime. This information was used to produce initial sketch plans, scale drawings of the individual components - like the disarticulated keelson - and to map timbers on the site plan (Figure 22).

f. Photography

The team photographed areas around the wreck site., including individual cannon, anchors and remnants of the ship's hull. All timber areas were documented with yellow and black metric scale bars. The photograph log included diagnostic evidence of ship construction features such as the scarph joint in Strake 2, sealant on the edge of strake 11, the trunnel in strake 1, and the edge to edge riveting most visible in the eroded wood of strakes 7 and 8 (Figures 26-28). All photos were logged in excel work sheet (Appendix)

g. Total Station Survey

The team conducted a survey of Catalina Island's shoreline adjacent to the site using Topcon total station (model GTS-229) and Topcon data collector (model FC-2000) along with prism and prism rod over two days. The first survey day, 14 September 2011, a datum and backsight were established (Figure 16 and Appendix). Team members took 96 shots, moving systematically along the perimeter of the shoreline from South to North.

The second survey day, (Date) surveying focused on the wreck site. The prism rod was raised to its maximum height (11 m) to avoid becoming wet. In order to take points on the submerged wreck features, a complex system of rod holders and point takers developed. One diver held the rod tip on the submerged feature of interest. Point order was pre-determined to facilitate this task. Two surface swimmers held the rod as motionless as possible while the land crew sighted and recorded the point of interest.

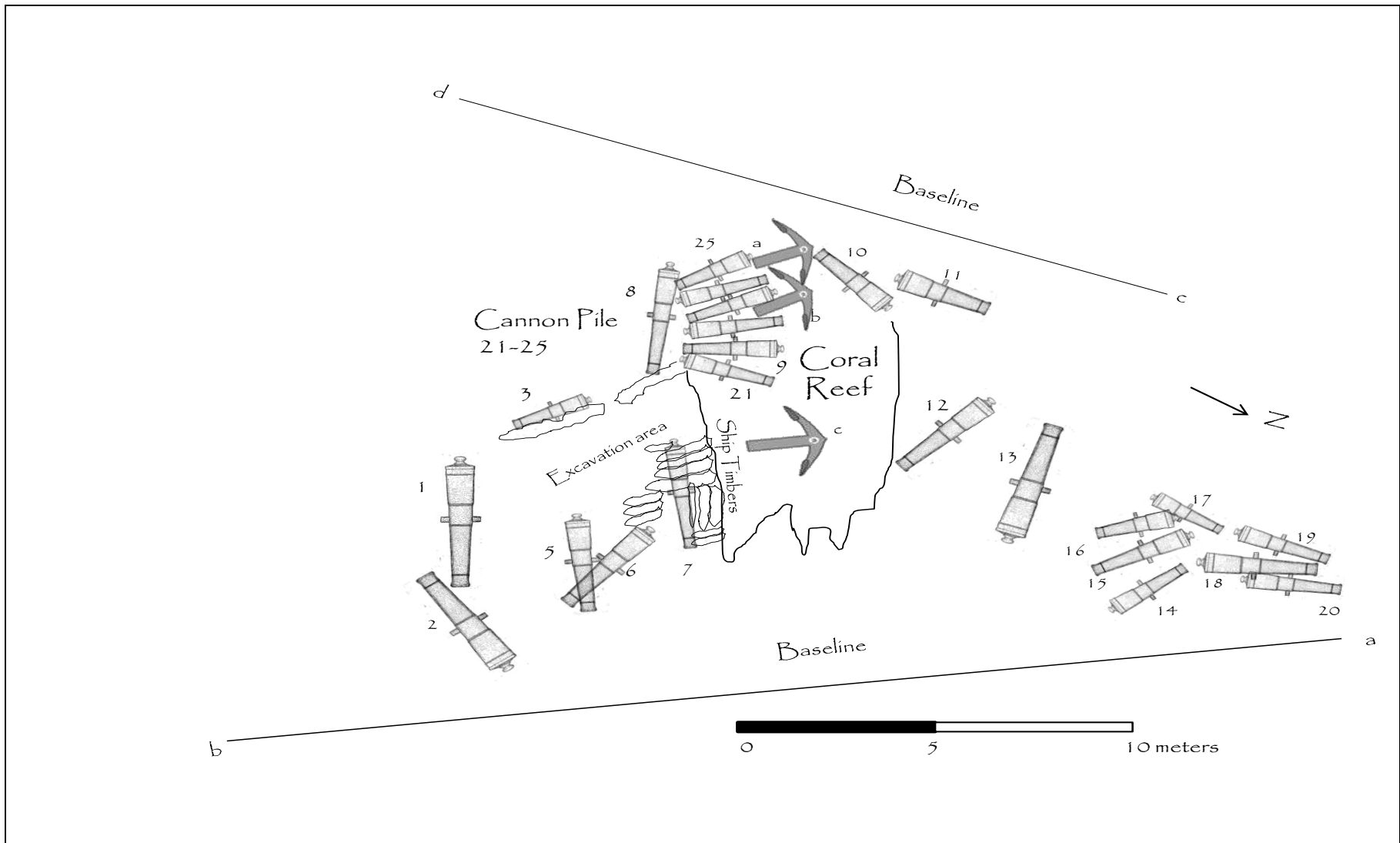


Figure 15. ECU Site Map Showing new Area of Excavation South of Cannon Pile (ECU 2011)

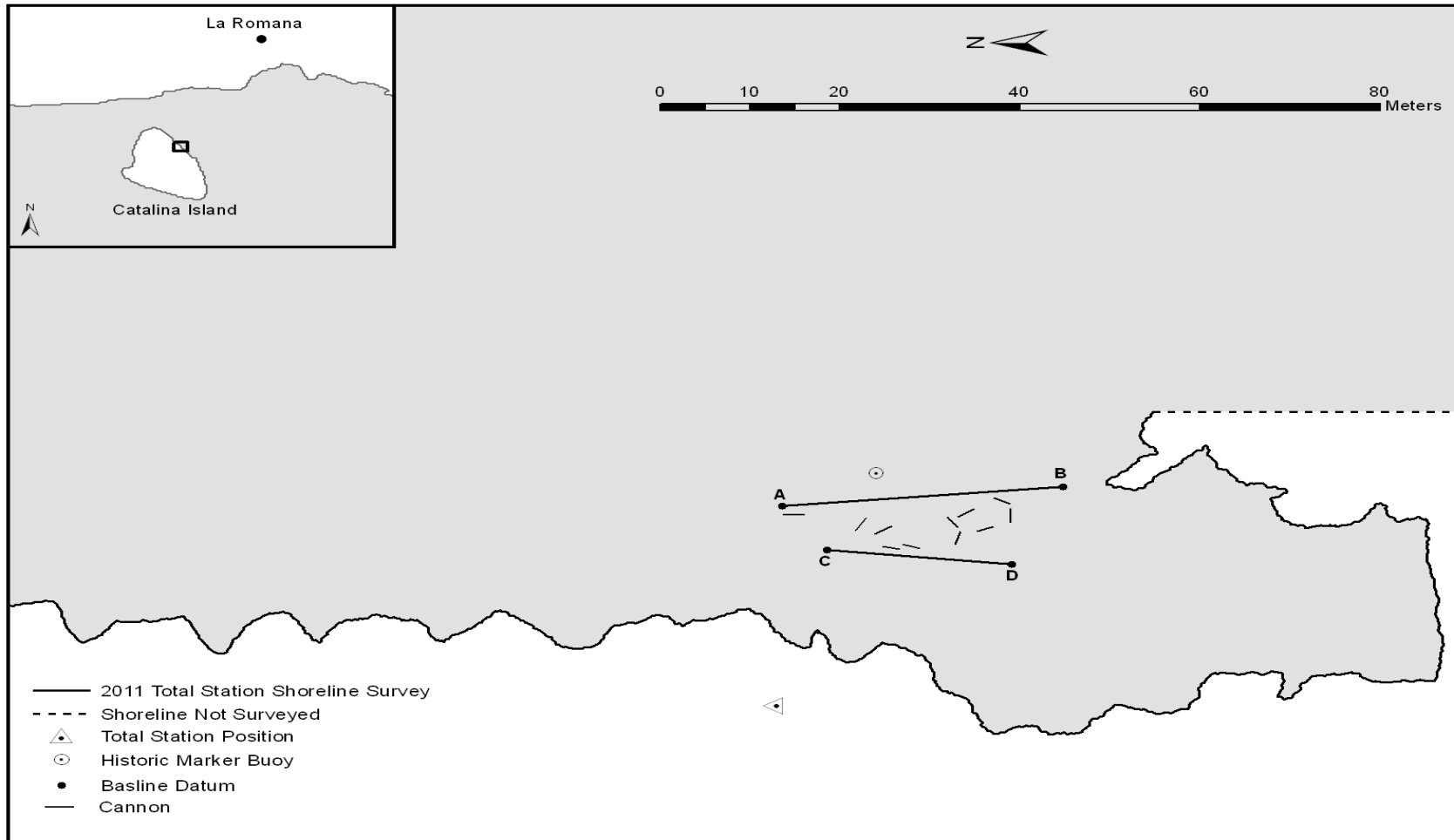


Figure 16. Total Station Plan

SECTION IV. FINDINGS AND INTERPRETATION

Mapping the site supplemented the IU earlier mapping operations and the additional area of excavation. The two main archaeological data components on the site were the cannon and timbers, both which can be viewed in the broader context of archaeological literature and findings on shipboard ordnance, vessel construction and site formation processes. This report will introduce a few other examples that may add to the interpretation and present alternate hypotheses for future work on the site.

a. Cannon

The 25 heavily marine encrusted cannon currently provide little diagnostic evidence beyond overall dimensions (Figure Lengths varied from 1.8-2.6 meters. The cannon complement of the two vessels that characterize the wrecksite, *Adventure Galley* and *Quedagh Merchant*, should be taken into consideration. *Adventure Galley*, 287 tons, was 3-masted galley with 36 oars built in 1695, carrying 34 cannons and a crew of about 150. The *Quedagh Merchant* was 400 tons or fifth rate carrying 20 guns. When the Armenian owned vessel was captured, the crew took 30 guns from the *Adventure Galley* and added these to the 20 already mounted on the *Quedagh Merchant*. A twenty guns complement is consistent with that of a medium sized French frigate. The vessel did carry a French registration or pass. Vessels of this size had a single deck with the 6-pounders mounted on the gundeck with the 3 or 4-pounders on the quarterdeck. It was also in line with the 1703 Establishment that listed the “numbers and natures of guns” for English warships, and although wrecked two years before this date, the *Quedagh Merchant* had an English captain (Henry 2009:13; Caruana 1994:157; Boudriot 1993:64).

The full complement was 50 guns from both ships, presumably dating to the mid to late 1600s. While neither were naval vessels, the cannon that were popular aboard ships of this time period and likely to be carried aboard the two vessels were:

- **12-pounders or demi culverines** were the favorite gun of the the Elizabethan Navy and originally captured from the Dutch. These cannon made up 34 per cent of the Navy's guns in 1660. It was carried on the lower decks of the fourth and fifth rates. 12-pounders were between 9 (2.7m) and 10 (3.048) feet. These are a fit for the lengths of the longer cannon on the site like number 1, 2, 9, 13, 22, and 23
- **6-pounders (or sakers) Dutch gun** more successful than the 8-pounder and gained acceptance in the early part of seventeenth century. These cannon were used mostly on the upper decks on Fourth and Fifth rates. Few were manufactured in Britain. 6-pounders came in a variety of sizes from 6 (1.8m) -9ft(2.7m). The saker was a culverin type gun.It was made in three different calibers, 7 pounds, six pounds, and 4 three quarter pounds. In the first half of the seventeenth century most large ships had a small number of sakers for firing over the bulwarks of the quarterdeck or forecastle. Second rates had two or four, third rates had around 10 and fourth or fifth rates carried them on the upper decks. Sakers popularity declined in the early 18th century but it continued in service for around 20 years. Candidates for this category, overlap with the minion and the 12-pounder category. They would exclude the smaller cannon such as numbers 17, 7, and 5.
- **Minion or 4 pounders** were a culverin type. It was usually fitted on the poop. It continued in use to the early part of the eighteenth century. Minions varied from 4 (1.2 m)to 7 (2.1m) feet in length. Candidates for this category on the site are cannons number 5, 7, 17 and 25 (Lavery 1987: 101-1030).

In comparison, the *Queen Anne Revenge* (QAR) shipwreck site (1718), which also carried a miscellaneous assemblage of cannon, comprised 6-pounders, 4-pounders, and 1-

pounders. Of the total complement 24 cannon assessed on the QAR site 17 were 6-pounders, 4 were 4-pounders and 3 were 1-pounders (Figure 17). Artillery from the site in conservation treatments are diagnostic. Beginning in 2006, only 5 guns out of the twenty-five have been cleaned of their concretion encasement and include two 6-pounders, one 4-pounder, and two 1-pounders or less. These cannon are believed to consistent with artillery produced by Swedish and English gunfounders during the late 17th and early 18th century, although only two of the guns with foundry marks reinforce other dimensional and manufacturing attributes (Henry 2009:15).

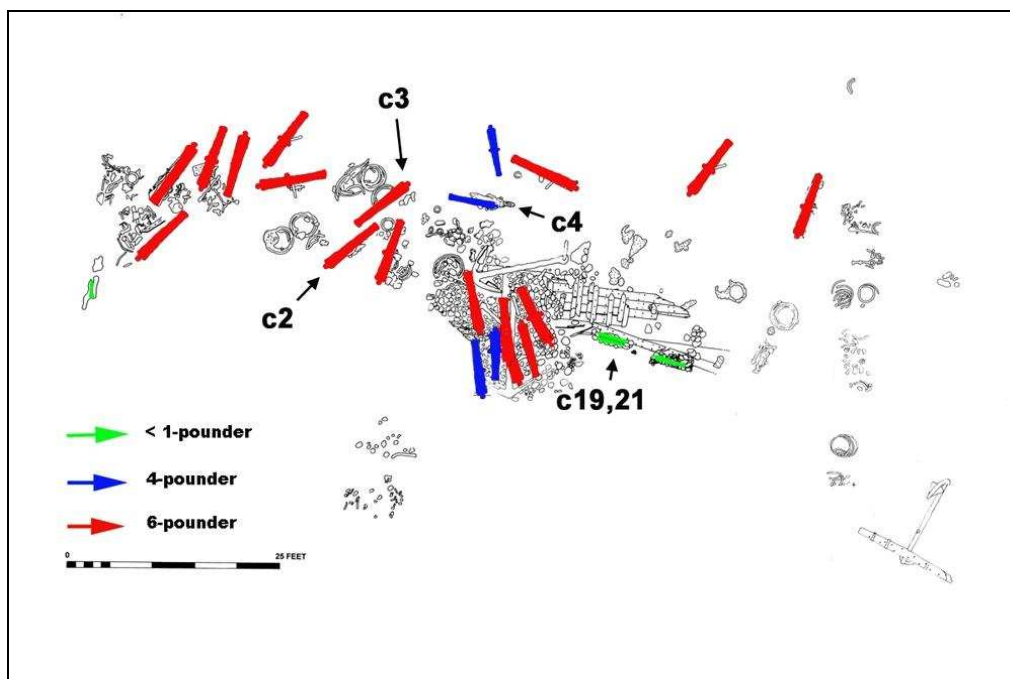


Figure 17. QAR Site Plan Showing Cannon Site Formation Processes

Another comparison was the distribution of cannon on the site. The QAR 6-pounders were distributed all over the site, with 4-pounders all in the middle area in a loosely defined pile. The 1-pounders were located at the extremities. One hypothesis is that cannon may have been

moved aft to take weight off the bow in an attempt to free or lighten the vessel as it went aground. Researchers suggest that a more plausible explanation is that once cannon spilled overboard, the hull lightened enough to move shoreward a short distance before grounding again. Amongst the 4-pounders in the midship area, cannon C-4, which was found loaded, and cannon C-15 lie on the western side of the site and appear to be among those that slid from the deck soon after wrecking. The probability exists that port and starboard mounted cannon, in a wrecking situation, slid towards the listing side of the vessel, mingling loosely with muzzle to cascabel. Researchers further speculate that the other two four-pounders, cannon C-5 and cannon C-8, were located in the main ballast pile and may have been in storage. Guns of this caliber would normally have been mounted on the stern quarterdeck or perhaps in the forecastle (Boudriot and Bertia 1993:53; Wilde- Ramsing 2009: 153-156). In comparison with other sites of that period, the shipwreck *Dartmouth*'s three-pounders were found in the ship's stern while its larger guns, six- and nine-pounders, were distributed the length of the vessel, including two long six-pounders that served as bow chasers (McBride 1976:192-196) On the *Whydah* site, three-pounders were mounted in the stern and the bow, while the main armament of four- and six-pounders ran the length of the ship (Hamilton 1992:423; Wilde- Ramsing 2009: 153-156).

The pattern exhibited on *Queen Anne's Revenge* represents an unusual placement of these smaller guns in the middle of the ship where the ship's larger guns are normally mounted. It is more likely a feature of site formation processes than deliberate placement (Wilde-Ramsing 2009: 153-156). To interpret the site formation processes on the *Queen Anne's Revenge*, archaeologist Mark –Wilde Wramsing used the Gibbs' model. The interpretive framework is based on the work of Keith Muckelroy and attempts to assess in greater depth the cultural processes that affect the archaeological record of shipwrecks. The Gibb's model further emphasizes the potential

range of correlations between historical reports of a shipwreck's events, anticipated crew behavior options based on disaster theory, and variety of clues found in the archaeological record. These clues may reflect evidence of materials that were redistributed throughout the ship, thrown overboard, or removed altogether during the wrecking process. The foundation of Gibbs' model is cultural uniformitarianism – the concept that human behavior has the potential produce consistent artifact patterns when confronted with similar situations, in this case a ship going aground on sand bar (Gibbs 2002:80).

The *Quedagh Merchant* site cannon number 24, 25, 23, 22, 21 and 9 are part of the 2-meter high cannon pile in the middle of the site. These cannon are a fairly close length grouping – the cannon are 21 (2.22m), 22 (2.55m) and 23 (2.55m) and 9 (2.55m), 24 (2.33m) 25 (is partially covered by cannon 24). The hypothesis of Indiana University researchers, who matched historical records with this finding is that this middle cannon grouping is a not signature of disposal in disaster or scuttling, but rather the in situ arrangement of the guns, still stacked as they would have been in the cargo hold, alternating cascabel to muzzle.

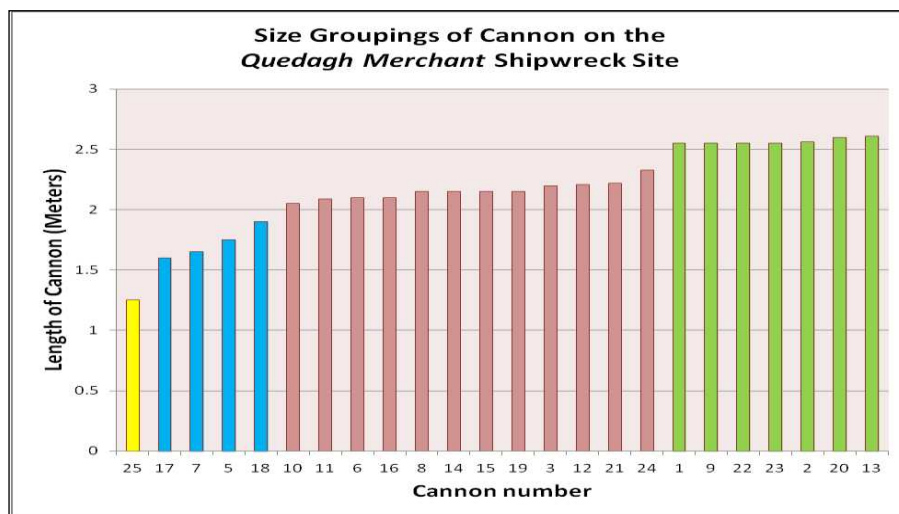


Figure 18. Cannon sizes on the Quedagh Merchant

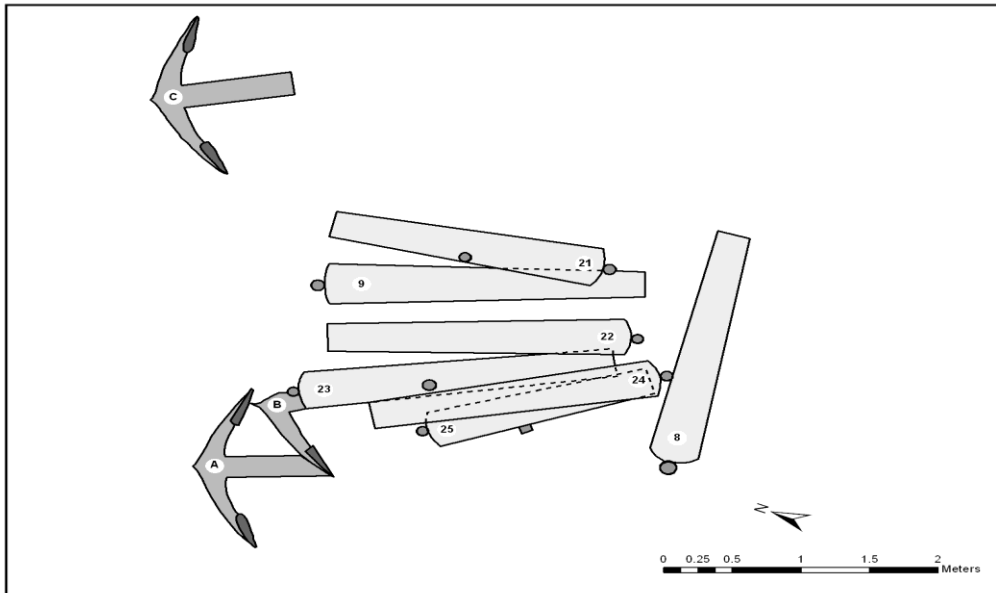


Figure 19. Photo of Cannon and Anchor Pile on the Quedagh Merchant



Figure 20. Photo of Cannon and Anchor Pile on the Quedagh Merchant

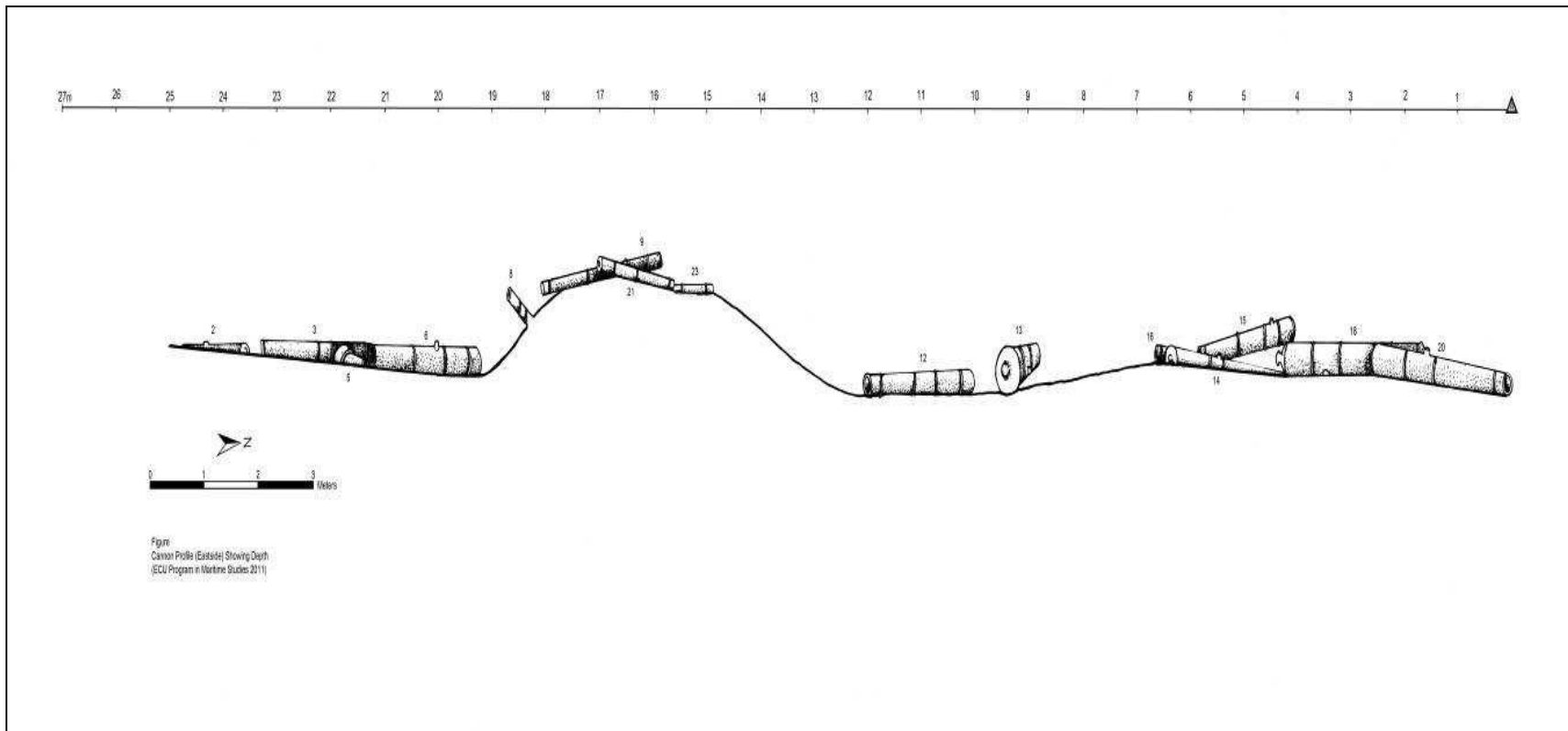


Figure 21. Profile of the Cannon Pile Showing Depth below Surface

Another site that displays a “pile” signature in the archaeological record is a mid sixteenth century Portuguese wreck in the Seychelles islands off the East Coast of Africa (Blake and Greene 1986:1-23). The site reports that ‘about 10 cannon lay in a tidy heap, far too organized to have been washed there by the sea’. This suggests, researchers claim, they may have been carried in the hold as ballast. There were conventions for loading iron ballast, not necessarily cannon, on a vessel during the mid-eighteenth century. A shipwright who visited naval dockyards in the 1730s described how English ships laid iron ballast along the length of the keelson in the hold to “stiffen” the movement of a ship and allow the use of more sail. This reduced the uncomfortable rolling motion for the crew. He elaborated upon how it was stowed on both the port and starboard rise of the keelson (Roberts 1992: 167,169). It is likely that extra cannon were stowed as ballast in a similar fashion, with consideration to balancing a ship and maintaining a center of gravity.

Thus, there are at least three hypotheses in the archaeological literature about the interpretation signature of a cannon pile on a shipwreck:

- cannon sliding from port to starboard or vice versa during the wrecking event and ending up muzzle to cascabel as postulated for the Queen Anne’s Revenge

- extra cannon stowed in the hold and not deployed on deck taken from another vessel beyond the usual vessel complement needed in deployment in the centerpiece case study of the *Quedagh Merchant*.

- extra cannon used as fixed ballast in the hold to “stiffen” the ship, the possible scenario for the Seychelles wreck. It is likely, clearly, that the validity of these three explanations may vary depending on the vessel, the wrecking event, and ship’s life history – and may not be mutually exclusive.

b. Timbers

The 2011 archaeological team re-investigated the ship timbers including a keel or keelson and small section of planking exposed by IU during previous field seasons, in addition to a newly excavated section of the hull planking that continued underneath cannon 7 southwards. This albeit small 2 x 1.20 meter section offered some crucial information about ship construction – in particular edge to edge plank joinery or rabbetting.

i. Keelson or keel timbers

The team recorded what appeared to be a 4.13 m disarticulated keelson with fastening holes broken into two sections (approximately 4.27 m in overall length, 37 cm at the widest point and 8 cm at the narrowest point). The south section was 2.13 m in length and the north section was 2 meters in length. Two sets of three round fasteners were spaced approximately 60 cm apart on the north keel timber. The spaces between the three fastener holes were 10 cm.

Additionally, the north timber has a single fastening hole approximately 60 cm south of the trio. This may also be one of a set of three, but due to wood erosion the other two fastener holes are no longer visible. The south keel timber has only three single fastening spaced 40 cm apart.

They are just north of the cascabel of cannon # 3. The maximum sided dimension was 37 cm.

The fasteners were approximately 1.5 to 2.0 cm in diameter and did not contain fasteners of wood or iron. It is likely that they represent the spacing between the now missing floor timber sandwiched between the keel and keelson. The south timber section is partially under cannon number three.

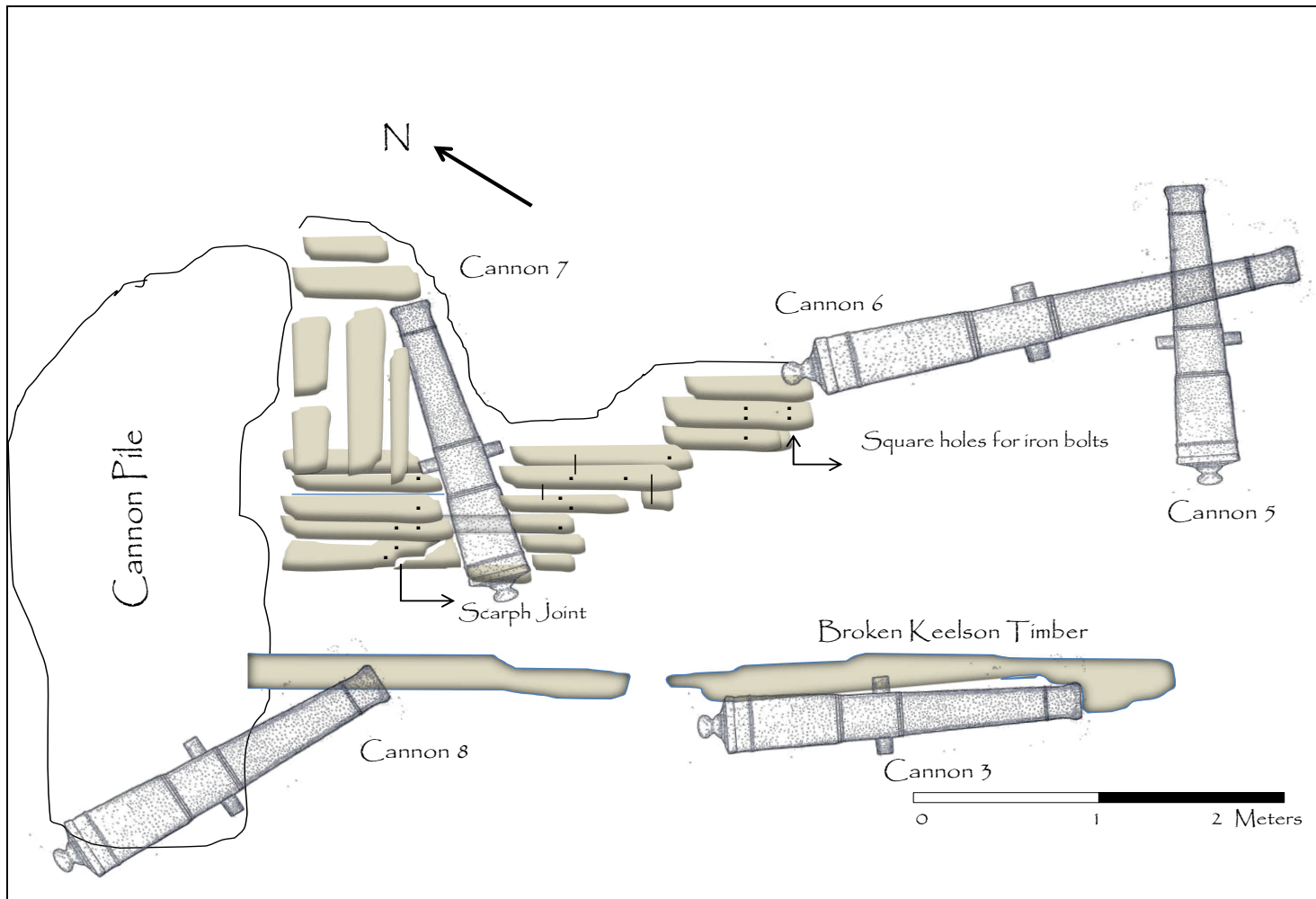


Figure 22. Ship Timbers Adjacent to Cannon Pile

ii. Missing hull section adjacent to Keel or Keelson?

There was an approximately 73 cm gap between the keelson and the section of hull strakes pinned by cannon 7. This gap between the keelson and the section of planking, suggests that the line of strakes and portions of floor timbers, directly adjacent to the keelson, had been removed or were completely burnt or eroded away. Fragments of eroded wood underneath the timber visible after cleaning away sand along the perimeter may have been remnants of floor timbers suggesting that it was more likely to be a keelson (Figure 22) There also appears to be a concreted mass of fastenings and other small iron items directly adjacent to the east side of the keel timber. These may represent loose fastenings, spare fastenings or an innovative missile package used as a type of anti-personnel shot.

iii. Hull Planking, Frames, and Scarph Joint (Strake # 1)

The previous field season IU teams uncovered and recorded their most diagnostic portion of outer hull planking or strakes wedged in between a gap east of the 2-meter high cannon pile and west of cannon 7. A strake S-1 was joined to another with a scarph joint pegged together with a wooden dowel. The scarph joint was presented as the primary evidence by IU as the match with historical literature describing how plank seams were “rabbeted.” During the 2011 field school, the team uncovered a total of 10 more strakes in addition two eroded frames and 1 ghost of former frames. Frames were 86-130 cm moulded and 23-36 cm sided. The space between them was 10 cm. Strake # 11 was clearly the eastern end of the remnant timbers. Further excavation in 2011 revealed there to be a fairly distinctive futtock pattern with a 10 cm space between the lower and upper futtock section (Figure Note – this refers to the small plastered over gap).

iv .Edge to Edge Plank Joinery or Rabbetting

Excavations on the south side of cannon seven yielded another 2 m (total length from cannon to south end of planking) section of planking comprising 8 strakes which were clearly a continuation of the section on the north side of the cannon.⁷ Planks were approximately 20-25 cm in width and 5 cm thick. Strakes were in a very eroded condition and there was clear evidence of ghosts of fastenings used for edge to edge plank joinery or rabbetting on strakes? These were evidently hammered through a square notched into the exterior of the above plank into the edge below. The notch was 2x1 cm with a shank length of 6cm (Figure 23). This feature is consistent with West Indian shipbuilding joinery. Boats in Bangladesh were built with planks “cut to a half rabbet at each edge so that they overlap...they are then joined edge to edge with metal lugs.” (Greenhill 1987:75; See figure 26 showing different edge joinery patterns). They also used luting, traditional glues or resins in conjunction with fastenings. Edge plank fastening ghosts are visible on strakes 4, 5, 6, and 8. Strake four contains two edge fastening ghosts, and the ghost on strake eight is the most preserved and diagnostic. The most grooves of these joints were between 10-12 cm in length.

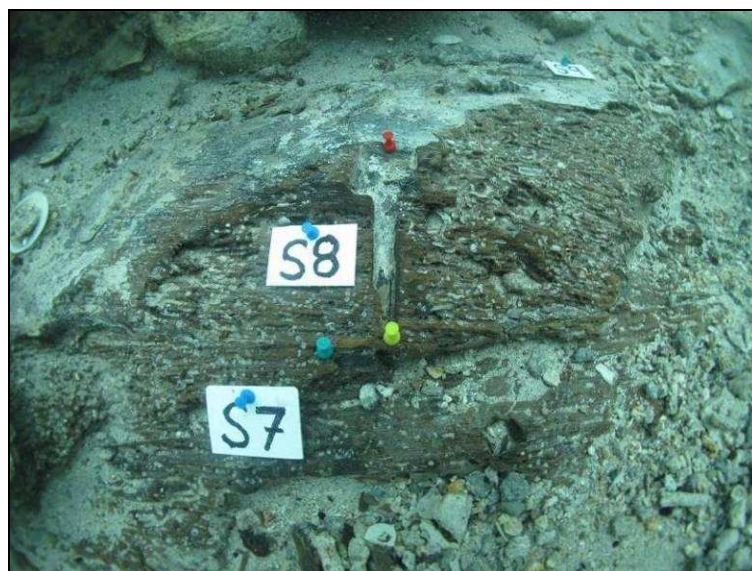


Figure 23. Edge to Edge Joinery between Strake 7 and Strake 8



Figure 24. Scarp Joint on Strake 2

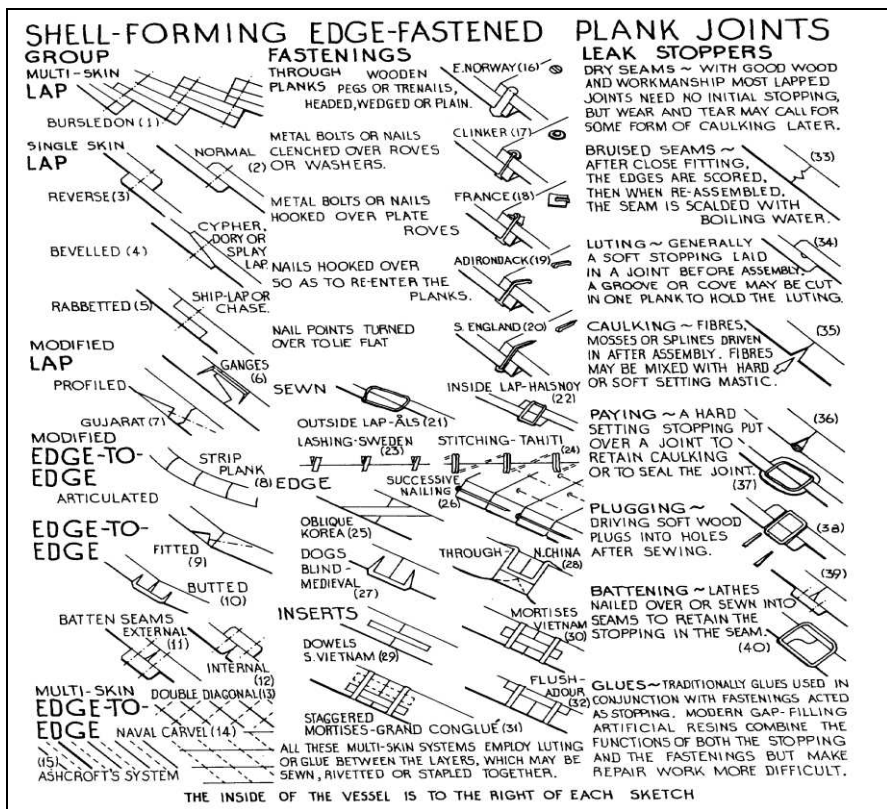


Figure 25. Diagram Showing Edge Fastening

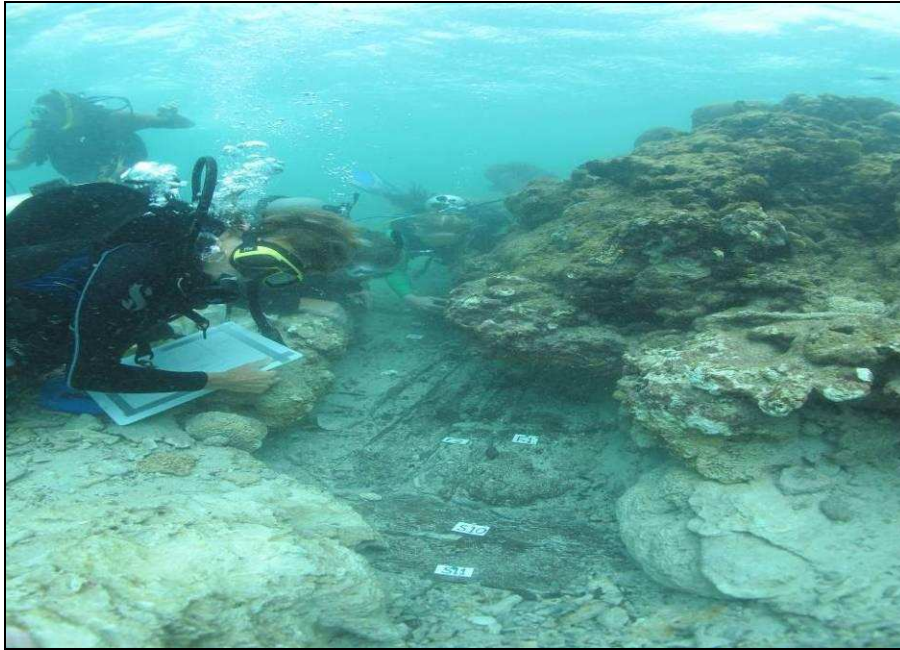


Figure 26. Hull section with tags view towards strake 10

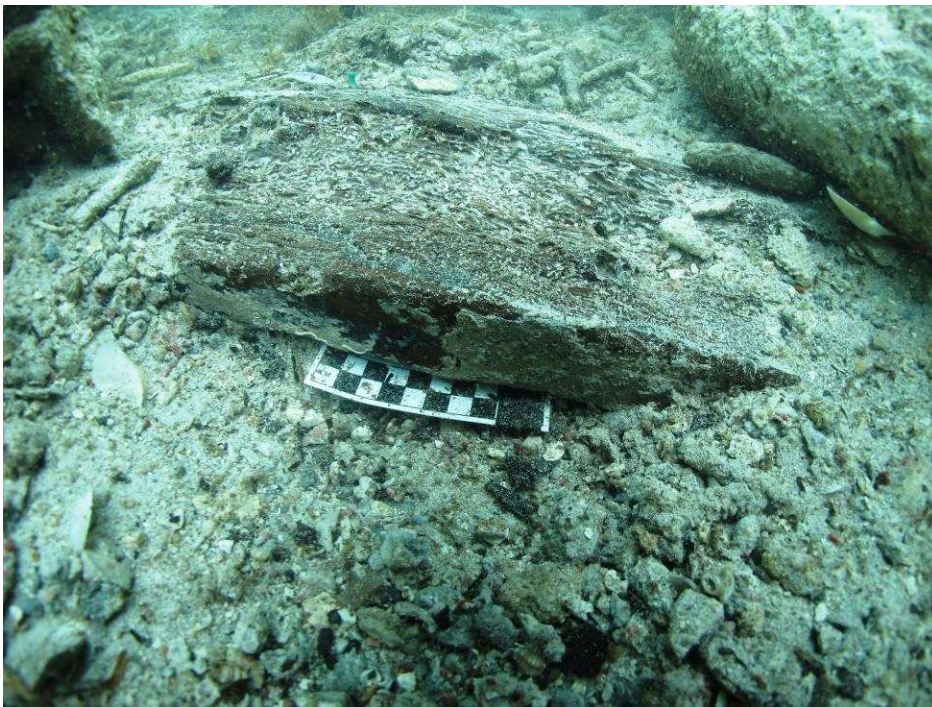


Figure 27. Edge of Planking with sealant visible

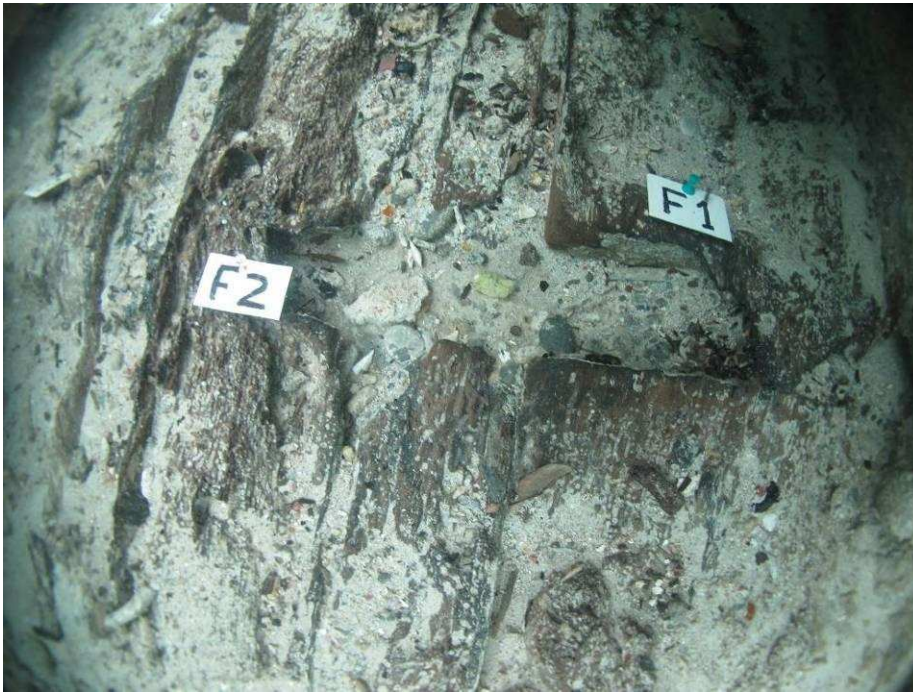


Figure 28. Futtocks showing space

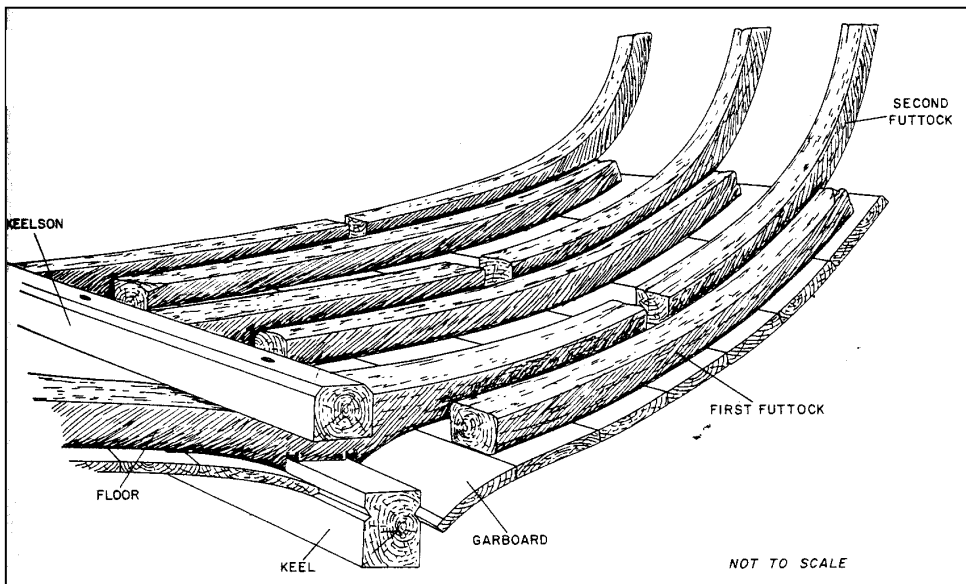


Figure 29. Possible Framing Pattern similar to Boscowan Shipwreck

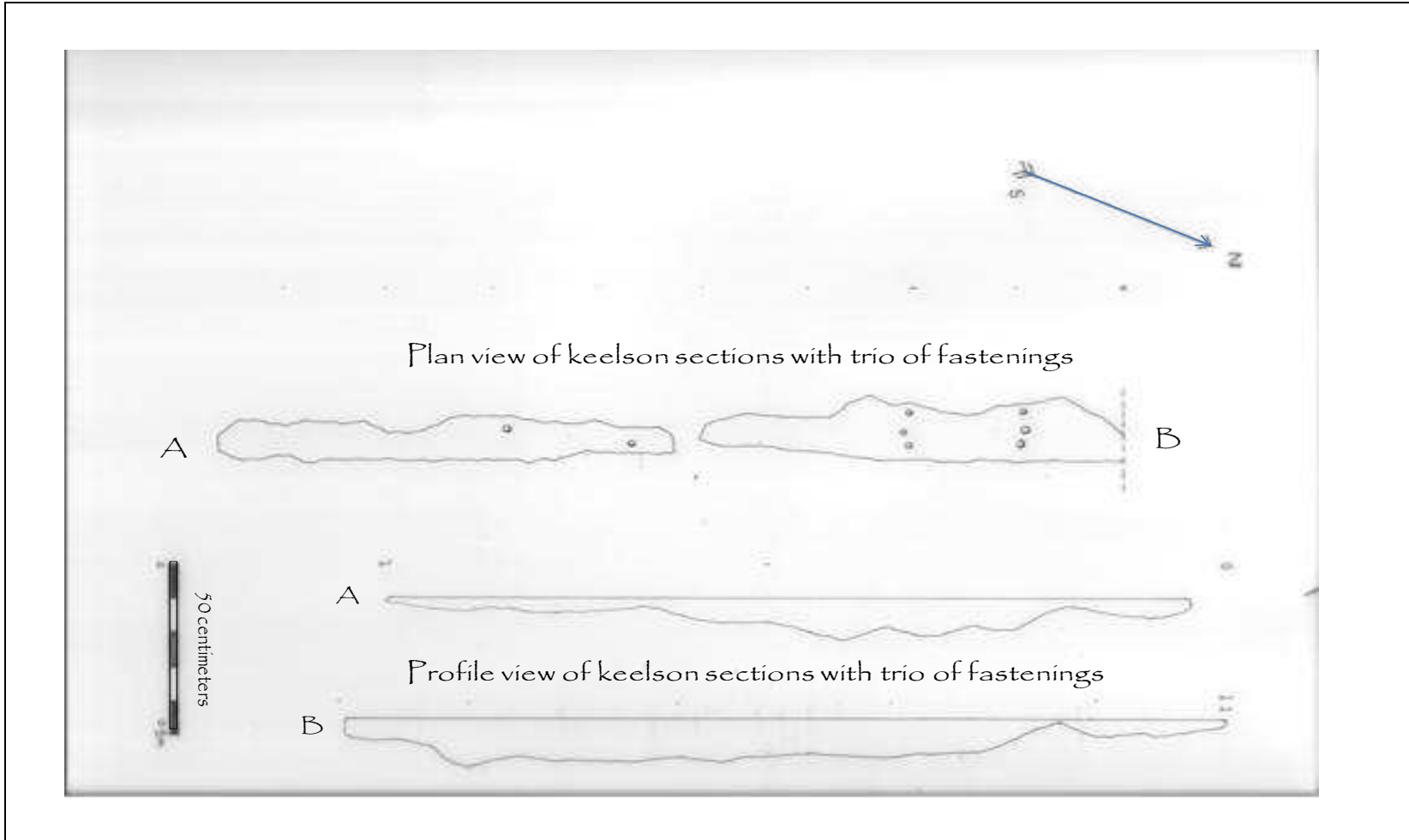


Figure 30. Field Drawing of Keelson Sections

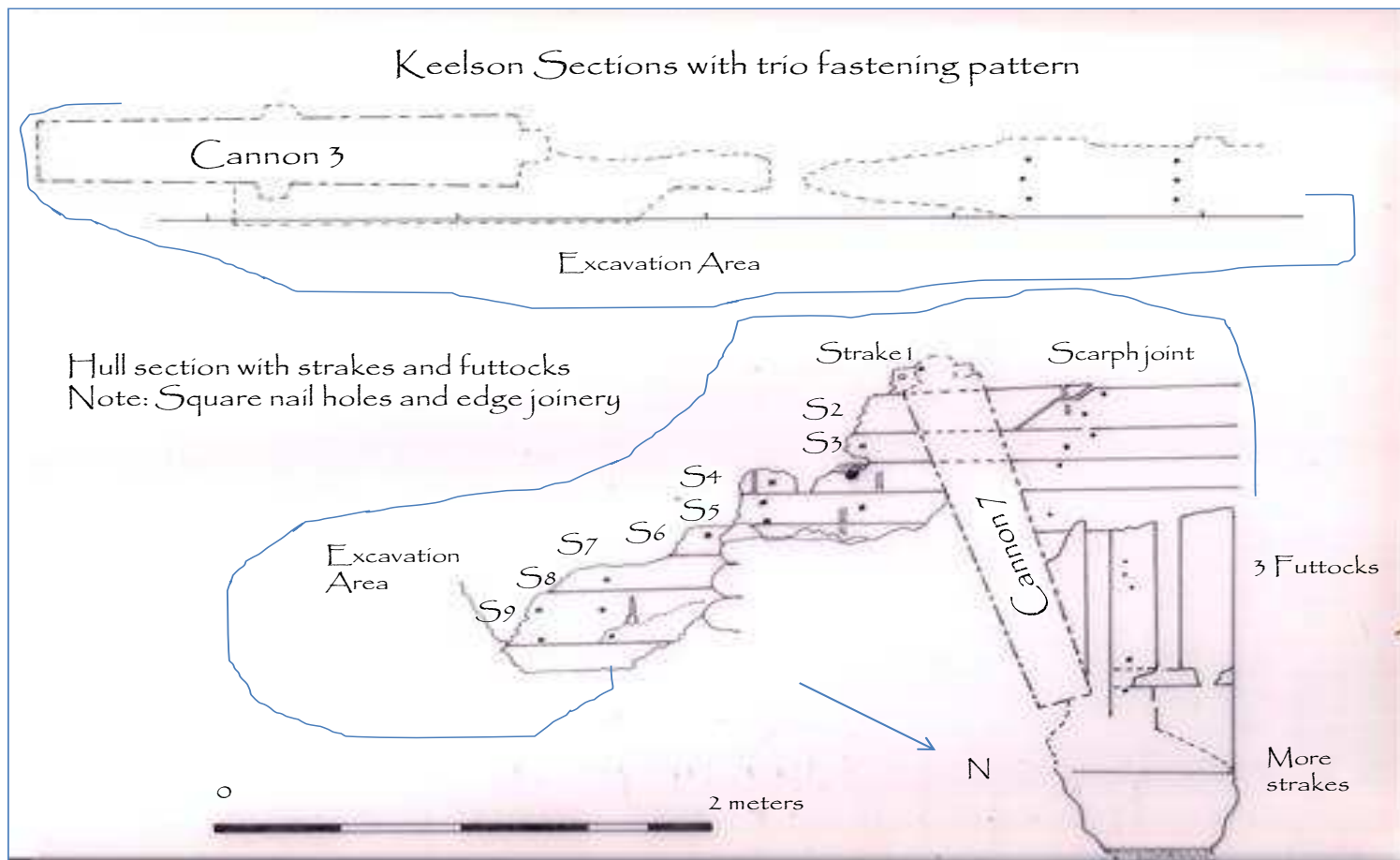


Figure 31. Field Drawing of the Excavated Hull Section

SECTION V. MANAGEMENT

The underwater cultural heritage office is the unit responsible for managing, monitoring, and the evaluation of study, rescue, restoration, conservation and enhancement of underwater cultural heritage properties. These properties are located in inland waters, territorial sea and the continental shelf.

a. Tourism

Tourism is a vast worldwide industry that generates immense revenues and secondary benefits. It is probably the most important source of revenue for the Dominican Republic. Yet there are some consequential costs that tourism brings, particularly to the local population, such as marginalization and in the extreme, exploitation of native Dominicans (Cabezas 2008:22). Originating before 1930, tourism in Dominican Republic was limited primarily to local tourists – defined as either international or domestic travellers who spend at least one night away from home pursuing leisure activities – who were drawn to the beaches and participated in the trendy activity of salt-water bathing (Meyer-Arendt 1992:219-220). From the 1930s to the 1950s, tourism increased as government despot Rafael Trujillo built hotels in efforts to attract international tourists, primarily from Europe. His unpopular reign and subsequent assignation followed by United States occupation of the Dominican created an unappealing atmosphere and tourism declined. In the 1970s, Trujillo’s successor, Joaquin Balaguer, attempted to resuscitate the industry with government backed incentive programs, which ultimately succeeded (Meyer-Arendt 1992:222; Cabezas 2008:29). During the 1960s and 1970s, beach destination tourism became and remained the most popular form of tourism in the Dominican. Today, cruise ships, international airports, and tourism “development zones” have helped boost tourism industry to the third highest source of revenue.

Still there are costs associated with increased tourism and the pressures more people visiting the island raise that need to be consciously balanced with its benefits. Local Dominicans do not seem to have shared in the increased revenues and are even displaced as workers as international corporations limit opportunities for employment. Additionally, local hotels and tourism businesses have a hard time competing with large conglomerates that sell all-inclusive packages, create aggressive international marketing, and develop partnerships with airlines and cruise ships that keep revenue within their controlled business system, and withholding direct profit sharing with the local economy. In addition to economic consequences, there are also socio-political ones that affect local Dominicans more intimately and with lasting impacts to the culture (Cabezaes 2008:25-30).

When archaeologists propose creating a tourist heritage destination from any archaeological resource, they need to keep in mind how their proposal may create not only benefits but also the unintended consequences both for the native society and for the resources as well. Questions that need to be considered include but are not limited to the following: Is tourism the best use of the resource? How will increased visitation impact the site both positively and negatively? What will the infrastructure be for visiting, managing and protecting the resource? Currently these questions are being addressed at the Quedagh Merchant site by Indiana State University as it proposes a maritime heritage trail around the wreck. As there are few such trails or sites of an in-situ extant shipwreck in the Dominican there is not a lot of data or answers from data. Still, careful consideration, planning and management will help protect the site as well as create benefits are the least in recognizing of Dominican Republic's rich maritime heritage and the potential to have positive economic impacts.

b.Salvage

The waters surrounding the Dominican Republic are home to a significant number of colonial-era shipwrecks. The government of the Dominican Republic estimates that there are approximately four-hundred shipwrecks in the waters surrounding Hispaniola (Leshikar-Denton 2002). For example, Hall (1992) notes one survey that yielded more than thirty shipwrecks in an approximately 15-mile stretch of coast. Considering the large number of potentially lucrative colonial-era wrecks, it is no surprise that the Dominican Republic became, and remains, a prime hunting spot for commercial salvors.

In 1979, the Dominican Republic's government created the Comisión de Rescate Arqueológico Submarino (Underwater Archaeological Rescue Commission) to manage salvage activities. Under its initial formulation, the Comisión de Rescate Arqueológico Submarino (CRAS) was administered by the navy (Leshikar-Denton 2002). The goal of the Commission was the "development and execution of salvage programs and preservation of cultural goods found in Dominican waters or in maritime areas under the economic influence of the Republic" (Hall 1992, 35). Thus, the Dominican Republic initially adopted an open policy towards commercial salvage. The government issued permits to salvage various wrecks, which mandated that materials recovered from salvage activities were split between salvors and the Dominican government.

The CRAS was also responsible for conserving the artifacts that were recovered by salvors and handed over to the government as required under the permit. Leshikar-Denton (2002, 291) mentions the development of a "specialized laboratory to catalogue and inventory all salvaged items, ensuring that they receive appropriate conservation using scientific methods, so that they may be put on public display." Hall (1992) writes that many of these artifacts are displayed in museums but only a small amount of historical research has accompanied

shipwreck excavations. Among the museums that display underwater cultural heritage recovered from salvage operations are the Royal Shipyards Museum and the Columbus Lighthouse Underwater Archaeology Museum (Leshikar-Denton 2002).

Within the last fifteen years, the Dominican Republic government has shifted its stance towards commercial salvage of its underwater cultural heritage. At a meeting of the Technical Commission on Underwater Cultural Heritage in 1998, the government acknowledged its prior links with salvage but signaled that they would now work with universities instead (Leshikar-Denton 2002). The Dominican Republic representatives also stated that they would maintain ownership of all recovered artifacts (Leshikar-Denton 2002).

The Dominican Republic did not adopt formal legislation specifically banning salvage of historic wrecks and other underwater cultural heritage (Kopela 2009). However, the government did issue an executive order, Decree No. 289/99 (adopted in 1999), which established the Oficina Nacional de Patrimonio Cultural Subacuático (National Office of Underwater Cultural Heritage). In accord with the representations made during the 1998 Technical Committee meeting, the decree signals a shift in attitude away from promoting “for-profit” salvage in the Dominican Republic. For example, Article 2(b) directs that “the search, survey and intervention related to the underwater cultural heritage must be carried out only by experts, for scientific purposes and through programmes of mutual cooperation among states, dismissing any intervention of merely financial or commercial character” (Kopela 2009, 526). According to its governmental website, the mission of the Oficina Nacional de Patrimonio Cultural Subacuático (ONPCS) is the “managing, monitoring and evaluation of study, rescue, restoration, conservation and enhancement of underwater cultural heritage properties that are inland waters, territorial sea and continental shelf” (Secretaria de Estado de Cultura 2005). To that end, the ONPCS has adopted the following responsibilities:

- Provide, maintain and update an inventory of areas and sites of underwater cultural heritage of the nation.
- Conduct research on the areas of interest to the underwater cultural heritage of the nation.
- Propose the designation as underwater archaeological site area or areas that warrant special protection, establishing specific regulations for each area or site.
- Safeguard and supervise all areas or underwater archeological sites.
- To supervise the registration process and inventory of archaeological collections and rescued.
- Conserve, restore and value the assets underwater.
- Promote and exposure of underwater heritage assets, to facilitate the study and appreciation to national and international audiences.
- Provide technical support to current and museums to be established in your area of expertise.
- Develop research projects and authorize archaeological survey in the area of cultural heritage.
- Provide for the seizure and recovery of goods excavated or removed illegally or contrary to international conventions, with the authorization of the undersecretary of state for cultural heritage.

c. Other Legislation

Although the Dominican Republic government has failed to pass legislation directly prohibiting salvage, it has passed a couple of laws that deal with cultural heritage within in the country.

The most comprehensive law addressing cultural heritage within the Dominican Republic is Law No. 41-00 (Appendix I), passed by the government on June 6, 2000. The act contains a number of provisions related to cultural heritage, including the promulgation of fundamental principles (Article 2), creation of a Ministry of Culture (Article 3), and the promotion of cultural development strategies (Title IV).

Unfortunately, the act does not provide much specific guidance for the comprehensive protection of underwater cultural heritage – indeed; underwater cultural heritage is hardly mentioned. The only reference to it is the transferal of the “National Bureau of Underwater Cultural Heritage” to the Ministry of Culture under Article 6. The act does contain broad provisions directing the Secretary of State for Culture to protect the nation’s cultural heritage (e.g., Article 47), but there is no express prohibition against commercial salvage.

Another law recently passed and related to protection of cultural heritage, although only tangentially, is Law No. 66/07. The overarching goal of the act, which was adopted on May 22, 2007, is to establish archipelagic status for the Dominican Republic under the auspices of the United Nations Convention on the Law of the Sea (UNCLOS). Under Article 16, paragraph 2, the government states that “salvage operations with respect to treasures from ancient sunken vessels within the exclusive economic zone which constitute part of the National Cultural Heritage ... shall be a national priority”.

The article further indicates a shift towards more responsible management of underwater cultural heritage by the Dominican Government. The range of activities that coastal states are allowed to control within Exclusive Economic Zone (EEZ) under UNCLOS has generally been limited to fisheries and extraction of resources on or under seabed. Although UNCLOS permits coastal states to control Marine Scientific Research within the EEZ, historically this has not been seen to encompass management of underwater cultural heritage although some commentators have claimed that this extends to the search (and perhaps recovery) of shipwrecks (Dromgoole 2010).

Establishment of archipelagic status is significant because UNCLOS clearly permits protection of underwater cultural heritage within territorial waters, contiguous zone, and *archipelagic waters*. Archipelagic status would greatly increase the amount of territory in

which the Dominican Republic would have a right to manage salvage activities. However, restrictions placed on salvage of underwater cultural heritage within the EEZ may be contrary to international law.

d. Recommendations

Catalina Island in the Dominican Republic is a dynamic site for the shipwreck of Captain Kidd's *Quedagh Merchant*. Situated in the path of a sizeable river's outflow, the shipwreck and island are subjected to large amounts of trash that ride the current out to the shore of the island. Additionally, the coast is prone to being in the path of storms, high winds, and hurricanes. The constant tidal flow pushes many artifacts up and through the blow holes that riddle the shore of Catalina Island. In such an environment, it is important to utilize the best methods for site preservation to ensure the longevity of the *Quedagh Merchant*. Many options present themselves for this situation, including monitoring, public outreach, and methods of preservation.

Regular monitoring of a wreck would allow management while letting the site remain in its natural habitat. Although the site would continue to deteriorate at its normal rate, this is not a complete hands-off approach and can include another monitoring option in the form of a scheduled resurvey. This works much the same as wreck tagging, but for sites that are stationary. Surveying the site annually would provide on-going information on the site, its location, corrosion, and any changes in its environment. Video and photography may also be considered monitoring options. These may also interest the recreational dive community in a way that could encourage collaboration between recreational divers and the scientists and managers who are responsible for the cultural resource. Monitoring is a productive way to gather knowledge on underwater sites in situ.

i. In Situ Site Stabilization, Preservation and Monitoring

Within the realm of preservation, many options present themselves, all geared toward leaving a cultural resource in its natural habitat but decreasing the rate of deterioration. The use of sandbags may reduce the movement of sand off a site as well as discourage divers from collecting artifacts without a permit. Plastic interlocking road construction barriers, also known as “Jersey Barriers” and “Road Legos,” can be filled with a material such as sand or concrete to make them sink, and then placed around the site as a barrier to sand, currents, or fishing paraphernalia. Propylene netting could be used to cover a site to protect it from looters or fishing equipment. Used in conjunction with an excavation method, it can prevent the re-inundation of a site with sand. Reburial can help a site recover from excavation, or an uncovering due to weather, currents, or any other factor. Sea grass matting is man-made sea grass that is mounted to grids that can be placed around a site to influence the buildup of sand and the flow of water. As was proven in the case of *William Salthouse*, sea grass matting has been used successfully as a means of preservation (Staniforth 2006). If preservation is the chosen method of management, it must be noted that to honor the goal of learning and giving back to the public, detailed reports must be made and published regarding the contents of the site, and the success of any used preservation methods.

Regardless of any chosen method of site management, the managers must engage in public outreach. Networking can be the best solution to a management problem (Staniforth 2009). Teaching and interacting with local groups (fishermen, scuba divers, and travel agencies) enhances the site, as well as all parties involved.

ii. Corrosion study on the cannons of Quedagh Merchant

Routine corrosion rate measurements on a marine site with ferrous objects is immensely valuable to understanding the site formation processes and are an important tool for cultural resource management (MacLeod 1989). Corrosion studies on shipwrecks date back to the early 1980's and a sound methodology has been developed and tested in a variety of environments simply utilizing a pneumatic drill attached to a SCUBA tank, multi-meter in a waterproof case, and a pH probe. Some notable projects are currently ongoing or that successfully completed similar studies include: *The Queen Anne's Revenge* project, HMVS *Cerberus*, and the SS *Xantho* (Welsh 2010; MacLeod 1996; McCarthy 1988;)

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Canon <http://www.youtube.com/watch?v=5o9KcsgKibo> This Week's WOW! | Ep. 21: The
Cannon | The Children's Museum Indianapolis July 7, 2011

Appendix 1. Captain Kidd Historical Documents

64 (XXIV) Boston in New England 197
Monday 3rd of July 1699

Capt. William Kidd by Command of his Ex^{ty} the
Earle of Bellmont having been notified and required
to attend his Lord^{sh} in Court at six a clock this
Evening at his Lord^{sh} house to give an Account of
his proceedings in his late Voyage to Madagascar
part adjacent and other places since his last departure
from England in the Adventure Gally with his
Maj^{ty} Royall Commission.

That Capt. William Kidd appeared according to the
Summons served upon him as above.

And being demanded an Account of his proceedings
above he answered that his Journal was destroyed &
made away by his Company. But if his Ex^{ty} would
please to grant him time for the same he would
prepare and present his Lord^{sh} with a Narrative
thereof in writing.

Being further demanded an Account of the Lading
on board his Schoop now lying within the Port, and on
board the Ship which he saith he left at Hispaniola
saith. There is on board the Schoop. Vizt
Forty Boyles containing Callico's, Silke Muslin, Striped
and plain
Five or six Tuns of refined Sugar contained in bags.
About Forty pound weight in dust & bar Gold
About Eighty pound weight in bar Silver
All which he saith he purchased at Madagascar
with the Powder, Small arms and other furniture
belonging to the Adventure Gally, whereof he was late
Commander.

And further saith
That about forty two or three days
since he left a Ship on the South side of Hispaniola in
the possession of Henry Bolton of Antigua Merchant
and about twenty two men, which Ship he brought
lost

Ask from Madagascar. And that there is on board
 the same the several Goods following
 About one hundred and fifty Barrels
 Twenty or eighty Tuns of Sugar
 About ten Tuns of Iron in short pieces
 About fourteen or fifteen Ankers
 Forty Tuns of Salt Peter
 About Twenty Tuns in the Hold
 Thirty Tuns in the Deck, being the Guns lately belonging
 to the Adventure Gally
 There is no Word on Board that he knows of
 Faith he never so conceals from
 The Ship is about four hundred Tons in burthen built
 at Surat by the Moors. all her Sams are rabbeted
 The preceding
 The opening Examination
 of Capt. Kidd was taken before
 his Ex^{ty} and Council
 of Admiral Admiral
 Copy again
 of Admiral Admiral

The ship is about four hundred Tons in burthen built
 at Surat by the Moors. all her Sams are rabbeted
 W^m Kidd

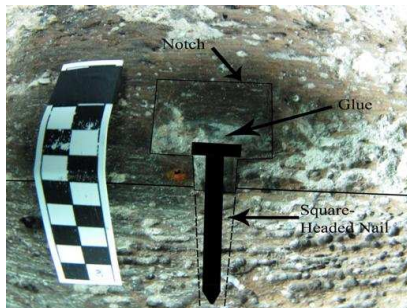
Appendix 2. Summary of Work Days on Site

#	Date	Summary of Activities
1	06.09.2011; Tuesday	Briefing of following day's work
2	07.09.2011; Wednesday	Student "Rapid" Assessment and familiarization of site.
3	08.09.2011; Thursday	Two Baselines laid (one east, one west). Measurements along baseline to cannons via trilaterations and/or offsets dependent upon the area.
4	10.09.2011; Saturday	Perimeter cannon measurements to the baselines using trilaterations and/or offsets. Attempted to measure the relationship between the cannon furthest south on the site (Cannon 1) and the nearest rocky point onshore.
5	13.09.2011; Tuesday	Removed debris around the cannon pile, both east and west. Recorded relationships between cannon on the large cannon pile, as well as relationships to individual cannon around the site.
6	14.09.2011; Wednesday	Total station used to record the topography of the island near the wreck site. Exposed timbers near the large cannon pile using hand fanning and an airlift. Recorded measurements along the "flooring" timbers.
7	15.09.2011; Thursday	Recorded measurements along the "keel" timbers and "flooring" timbers near the large cannon pile (length, running depth/thickness, width). Exposed previously undiscovered areas adjacent to the "flooring" timbers in an eastward direction.
8	19.09.2011; Monday	Hand fanned and chiseled coral-heads around the "flooring" timbers. Hand fanned a three-foot area around the south "keel" timber and exposed a "drift pin," ballast stone, flat stone with iron concretion, and a section of a tunnel. Recorded the running depth of the area uncovered.

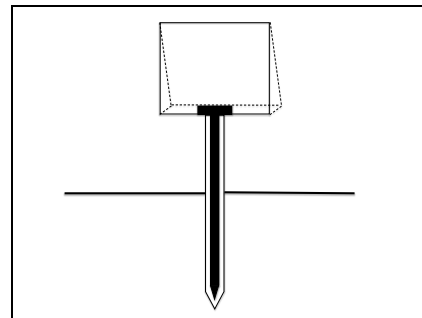
9	20.09.2011; Tuesday	Hand fanned and airlifted an area around Cannon 3 and Cannon 7 and exposed a previously undiscovered section of timbers to the south of the two cannon.
10	21.09.2011; Wednesday	Tertiary baseline laid running along the north and south “keel” timbers. Measurements to the “floor” timbers and newly exposed timbers offset from this tertiary baseline. Recorded shape and nail-hole spacing along the north and south “keel” timbers.
11	22.09.2011; Thursday	Recorded depth and width of nail-holes along the tertiary baseline. Excavated along the west side of both the north and south “keel” timbers; recorded location and depth of found objects.
12	24.09.2011; Saturday	Final photographs of “floor” timbers and new timber section taken; removal of baselines. Site sandbagged around excavated areas (near cannon pile, Cannon 3 and Cannon 7, along the “keel” timbers). Final measurements – cascabel, bore diameter, circumference – of select cannon.

Appendix 3. Planking Measurements

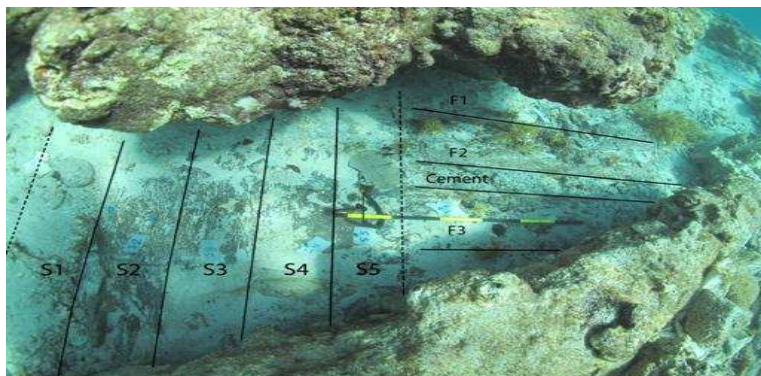
North Planking Measurements				
Timber	Length	Width	Thickness	Comment
P1 (S2)	1.10m	.20m		
P2 (S3)	1.05m	.16m		
P3 (S4)	1.05m	.16m		
P4 (S5)	1.00m	.20m		Width as far as we could see before frames
P5 (S10)	.65m (W) .5m (E)	.38m	.05m	One measurement at both sides
F1	1.3m	.28m		N. End of Planks
F2	1.03m	.23m		
F3	.86m	.36m		To where concretion started on East side
Space bet. Frames	.10m	.15m		.43 m from East end of Frame 1
Overall	2.03m			



Edge to edge plank joinery

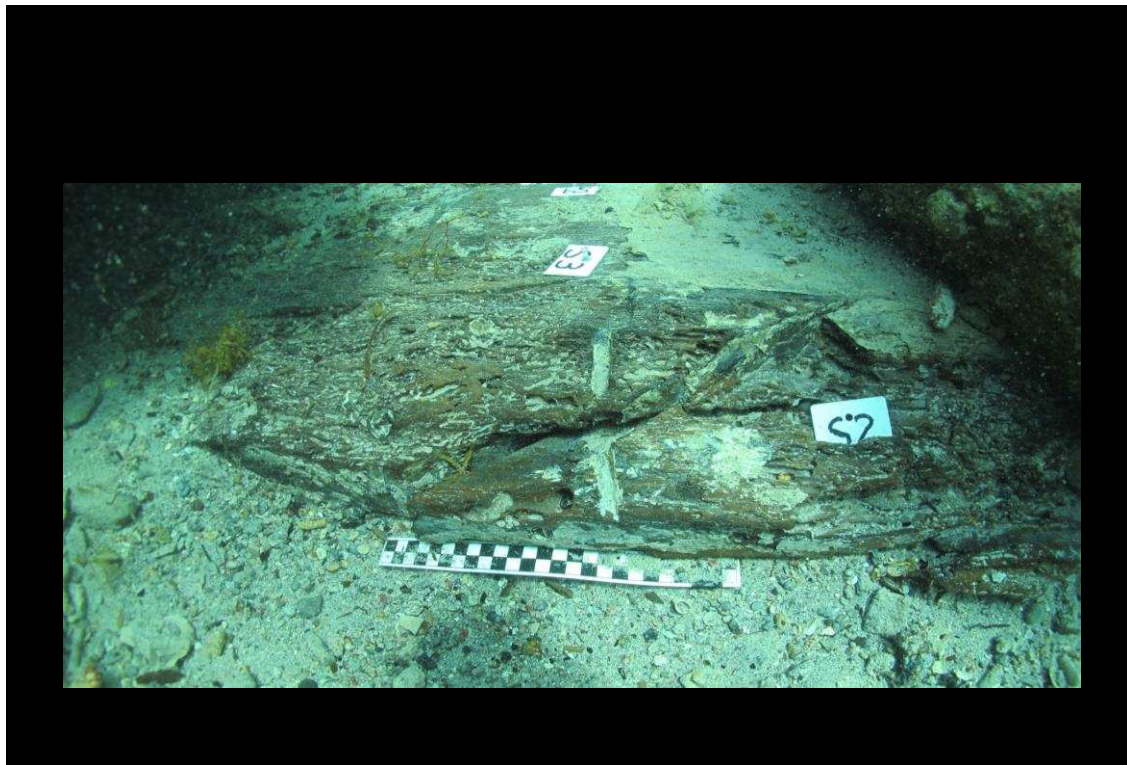


North Planking Fasteners				
Timber	Distance from S End of Timber	Distance from W Side of Timber	Hole Diameter	Comment
S2	.815m*	.02m	.022m	*From end of timber on other side of cannon
S2	.82m*	.182m	.02m	*From end of timber on other side of cannon
S3	.42m*	.079m	.016m	*From cannon 7
S3	.31m	.11m	.02m	...
S4	.26m	.01m	.02m	...
S5	.27m	.12m	.02m	...
F3	.17m	.18m*	.02m	*From west side of timber S5
F2	.03m*	.05m**	.016m	*From west; **From south side
F2	.23m	.05m	.014m	...
F2	.35m	.07m	.012m	...
F2	.72m	.06m	.016m	...
F2	.87m	.04m	.014m	...



Strakes and Futtocks

Scarf Info	
Location	Measurement
S End of Timber to Scarf on W side of Timber	.813m
S End of Timber to Scarf on E Side of Timber	.516m
NW to SE section starting on W side	.12m
Flat are running N to S	.11m
NW to SE section from flat area to E side	.25m
Space of Scarf	.022m



Scarf in Strake #2

Appendix 4. Cannon Measurements and Locations in Relation to the Baselines

Cannon Number	Length (meters)	Compass Bearings	Depths			
			Mzle (ft)	(m)	Casc. (ft)	(m)
1	2.36	270	7	2.1336	9	2.7432
2	2.44	239	8	2.4384	8	2.4384
3	1.95	160S	8	2.4384	8	2.4384
4				0		0
5	1.73	75E	9	2.7432	8	2.4384
6	1.92	150S	8	2.4384	8	2.4384
7	1.65*	62NE	9	2.7432	9	2.7432
8	2.15	080NE	6	1.8288	7	2.1336
9	2.55	155	6	1.8288	5	1.524
10	2.05	225	7	2.1336	8	2.4384
11	2.09	360	9	2.7432	8	2.4384
12	2.21	105SE	9	2.7432	9	2.7432
13	2.61	300W	8	2.4384	8	2.4384
14	2.15	335	9	2.7432	8	2.4384
15	2.15	185	8	2.4384	7	2.1336
16	2.1	175	8	2.4384	8	2.4384
17	1.6	10	7	2.1336	8	2.4384
18	1.9	6	8	2.4384	8	2.4384
19	2.15	335	8	2.4384	8	2.4384
20	2.6	0	9	2.7432	8	2.4384
21	2.22	20	6	1.8288	5	1.524
22	2.55	350	6	1.8288	6	1.8288
23	2.55	165	6	1.8288	6	1.8288
24	2.33	160	7	2.1336	5	1.524
25	1.25*	175	7	2.1336	7	2.1336
26	.8*	175	***		***	

Cannon	Offset AB Muzzle		Offset AB Cascabel		Offset CD			
	AB	Length (m)	AB	Length (m)	CD	Muzzle	CD	Cascabel
1	24.7	4.9	24.7	2.3		19		18
2	25	2.5	23.6	0.75		19		17
3	23.25	5.1	20.95	5.4		17.75		15.6
4		0		0				
5	20.75	2	21.75	3.5		14.8		15.8
6	21.2	2.35	19.3	3.1		15.3		13.75
7	17.9	2.9	18.3	4.7		12.3		13.4
8	18.7	5.75	18.25	7.75		13.8		13.8
9	18.1	5.6	15.8	6.5		13.4		11.2
10	14.1	7.9	12.35	6.85		9.8		7.8
11	10.25	6.8	12.3	7.3		5.7		8
12	**	0		0		**		
13	7.8	4.4	9.35	2.15		2.8		3.7
14	4.15	1.7	6.3	1.15		?		0.6
15	5.8	2.05	4.1	2.25		0.5		?
16	6.6	2.5	4.55	2.7		1.2		?
17	3.45	2.35	4.95	3		?		?
18	1.6	1.7	4.2	1.9		?		?
19	2.7	2.1	0.6	1.65		?		?
20	0	1.1	2.5	1.6		?		?
21	15.55	6.4	17	4.9		10.8		11.9
22	15.65	6.8	18	6.1		11		13.1
23	16.75	6.5	14.85	8.15		12		10.6
24	16.05	7.3	17.45	6.65		11.5		12.8
25	***		17.6	7		***		13
26	***		***			***		***

Appendix 5. Cannon Condition

Cannon Number	Cannon Condition
Cannon 1	Starboard trunnion up, not much encrustation, sedimentation levels low, some biology, one of the most clear cannon outlines on the site
Cannon 2	Port trunnion up, moderate amount of encrustation and sedimentation, the muzzle end has lots of encrustations, a good amount of fire coral present
Cannon 3	Trunnions down with the port side visible (starboard side visible but lots of encrustation), encrustation levels moderate, sedimentation levels low, covered in
Cannon 4	...
Cannon 5	Starboard trunnion up, encrustation levels moderate, sedimentation levels very high (++), most of the cannon is buried and there is very little sizable coral
Cannon 6	Unsure of trunnion location or which angle cannon is on, encrustation levels are moderate but sedimentation is very high, there is lots of coral growth and is mostly buried but less than cannon 5
Cannon 7	Port trunnion up, encrustation and sedimentation levels very high, uncovered on the starboard side now from the excavation
Cannon 8	Trunnion location is unclear, there is a high amount of encrustation and sedimentation, the starboard side is open to the water because it is on the edge of the main cannon pile
Cannon 9	Trunnion location is unclear, there is a high level of encrustation and sedimentation, the bottom side of the cannons in the pile are obscured by encrustations, huge brain coral obscures the top of cannon 9

Cannon 10	Starboard trunnion up, moderate encrustation but a fair amount of sedimentation (especially on the port side) there is a good number of brain and fire coral colonies developing
Cannon 11	Trunnions down, encrustation high and a moderate amount of sedimentation, coral growth and sedimentation obscure the trunnions, lots of coral growth (especially fire coral) and sea fans
Cannon 12	Trunnions are not visible, there is a high amount of encrustation and sedimentation (especially on muzzle end), there is a large coral encrustation on the top
Cannon 13	Trunnions down, encrustation level is moderate with low levels of sedimentation, lots of coral growth, Big Cannon
Cannon 14	Starboard trunnion up, moderate levels of encrustation and sedimentation, more coral growth than 13 (this is another cannon pile so the encrustations levels and sedimentation levels are similar to the main cannon pile for cannons 14-20)
Cannon 15	Starboard trunnions possibly up (coral encrustation obscuring slightly), both encrustation levels and sedimentation levels are high making the features difficult to distinguish
Cannon 16	Trunnions down possibly, encrustation levels and sedimentation levels high, cascabel obscured by encrustations
Cannon 17	Trunnion down possibly, high levels of encrustation and sedimentation, muzzle totally covered by sedimentation
Cannon 18	Trunnions down, encrustation levels and sedimentation levels high, cascabel angled up, muzzle covered by sedimentation
Cannon 19	Trunnion down with the port trunnion visible, high levels of encrustation and sedimentation on port side with the starboard side open to the water

Cannon 20	Starboard trunnion up, encrustation levels and sedimentation levels high, starboard side open to the water, Big Cannon
Cannon 21	Port trunnion up, encrustation very high and high amounts of sedimentation (especially on the starboard side) huge coral growth on the starboard side, cannons 21-26 are in the main pile and have a lot of encrustation and sedimentation
Cannon 22	Port trunnion up, very high levels of encrustation and sedimentation, fewer coral colonies than cannons 9 and 21
Cannon 23	Starboard trunnion up, encrustation and sedimentation very high (possibly from the air lift), underside obscured by concretions
Cannon 24	Starboard trunnion up, very high levels of encrustation and sedimentation, coral growth on trunnion gives it an odd angle
Cannon 25	Trunnion location is unclear, encrustation and sedimentation levels high, starboard side open to the water, muzzle is encased in an encrustation completely
Cannon 26	Trunnion location is unclear, encrustation and sedimentation levels very high, not sure where cascabel and muzzle are located in pile

APPENDIX 6. Total Station Data

POINT	NORTHING (ft)	EASTING (ft)
DAT140911ST001	0	0
DAT140911ST002	94	0
DAT210911ST001	0	0
TS140911001	81	14
002	73	17
003	77	22
004	81	20
005	83	18
006	83	17
007	-72	-3
008	-139	139
009	-135	133
010	-135	126
011	-140	120
012	-131	114
013	-123	105
014	-132	102
015	-143	111
016	-158	123
017	-169	106
018	-186	100
019	-182	98
020	-184	89
021	-188	85
022	-199	84
023	-212	86
024	-221	94
025	-226	86
026	-237	86
027	-237	76
028	-240	50
029	-242	27
030	-239	10
031	-212	12
032	-194	12
033	-184	14
034	-184	2
035	-171	14
036	-159	14

037	-150	-2
038	-140	-5
039	-123	-1
040	-110	-14
041	-102	-14
042	-94	-11
043	-82	-15
044	-70	3
045	-61	7
046	-54	24
047	-39	30
048	-27	21
049	-21	26
050	-19	34
051	-16	36
052	-13	28
053	-9	30
054	2	43
055	8	47
056	23	42
057	28	42
058	32	39
059	40	45
060	48	41
061	56	40
062	62	31
063	72	29
064	86	40
065	99	47
066	110	38
067	119	33
068	126	42
069	144	45
070	156	42
071	165	34
072	176	46
073	190	40
074	199	28
075	212	46
076	227	44
077	235	44
078	247	34

079	255	47
080	258	53
081	275	52
082	286	50
083	288	59
084	288	65
085	285	73
086	298	67
087	303	70
088	321	66
089	337	61
090	344	52
091	346	43
092	349	34
093	356	30
094	356	40
095	368	39
096	378	29
TS210911200	-106	104
201	-87	94
202	-5	92
203	-13	92
204	-39	111
205	-5	96
206	-21	75
207	-31	84
208	-35	90
209	-38	82
210	-44	86
211	-41	76
212	-47	75
213	-48	77
214	-90	87
215	-87	96
216	-87	67
217	-87	94
218	-81	99
219	-54	75
220	-62	85
221	-81	85
222	-75	83
223	-64	90

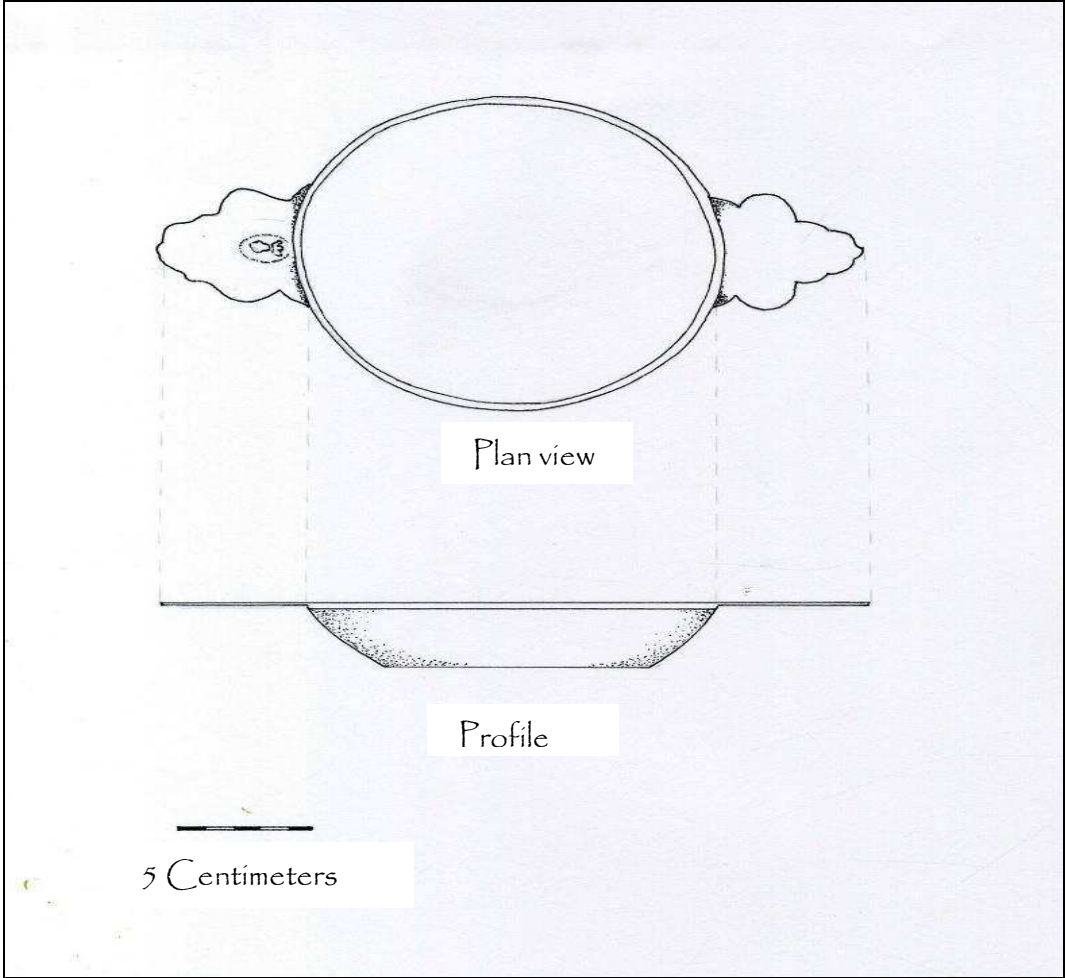
224	-68	85
225	-69	83
226	-67	77
227	-68	90
228	-74	94

Appendix 7. Slave Ship Marquis Le Gallifet and artifacts

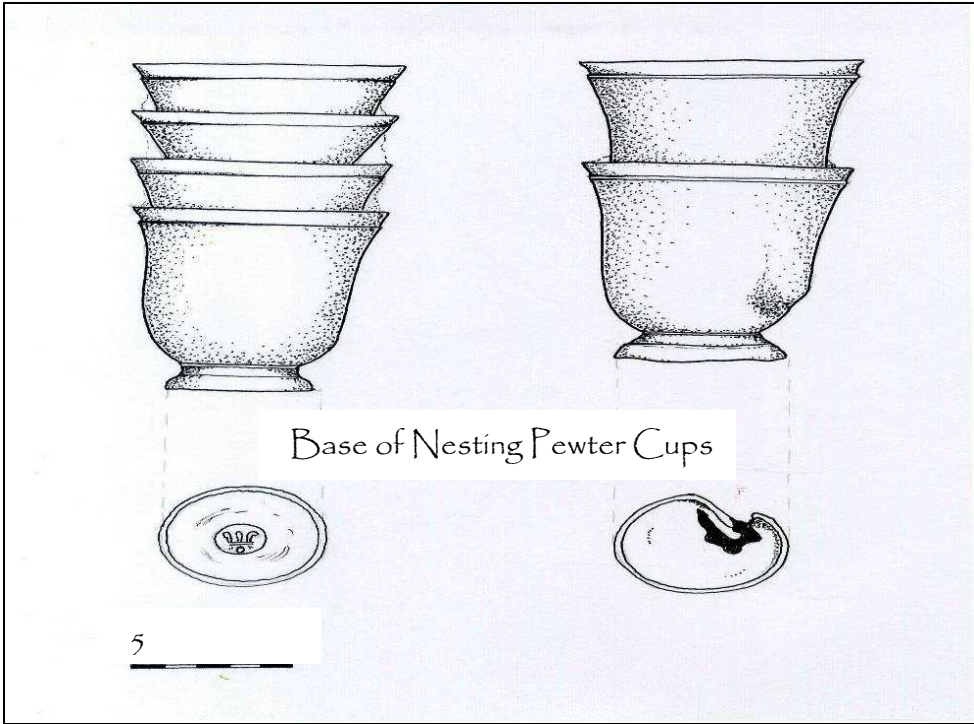
Voyage identification number		31203
Voyage in 1999 CD-ROM	Yes	
Vessel name	Marquis de Gallifet	
Flag	France	
Flag*	France	
Tonnage	423	
Standardized tonnage*		
Vessel owners	Michel	
Particular outcome of voyage	Voyage completed as intended	
Outcome of voyage for slaves*	Slaves disembarked in Americas	
Outcome of voyage if ship captured*	Not captured	
Outcome of voyage for owner*	Delivered slaves for original owners	
Voyage Itinerary Place where voyage began*	Nantes	
First place of slave purchase	Cabinda	
Principal place of slave purchase*	Cabinda	
First place of slave landing	Port-au-Prince	
Principal place of slave landing*	Port-au-Prince	
Place where voyage ended	Nantes	
Region where voyage began*	France	
First region of slave purchase	West Central Africa and St. Helena	
Principal region of slave purchase*	West Central Africa and St. Helena	
First region of slave landing	Saint-Domingue	
Principal region of slave landing*	Saint-Domingue	
Region where voyage ended	France	
Voyage Dates Year arrived with slaves*	1787	
Date voyage began	1786-10-15	
Date trade began in Africa	1787-01-21	
Date vessel departed Africa	1787-06-19	
Date vessel arrived with slaves	1787-08-07	
Date voyage completed	1787-12-05	
Voyage length, home port to slaves landing (days)*	296	
Middle passage (days)*	49	
Captain and Crew Captain's	Joret de Longchamp	

name	
Crew at voyage outset	44
Crew deaths during voyage	7
Slaves carried from first place of purchase	375
Slaves carried from second place of purchase	0
Slaves carried from third place of purchase	0
Total slaves embarked	375
Total slaves embarked*	375
Number of slaves arriving at first place of landing	332
Total slaves disembarked*	332
Slave deaths during middle passage*	43
Percentage of slaves embarked who died during voyage*	11.5%
Source	Mettas, Jean Répertoire des expéditions négrières françaises au XVIIIe Siècle - I - Nantes; Tome 1, Nantes (Paris, 1978); Tome 2, Ports Autres que Nantes (Paris, 1984), édité par Serge et Michelle Daget

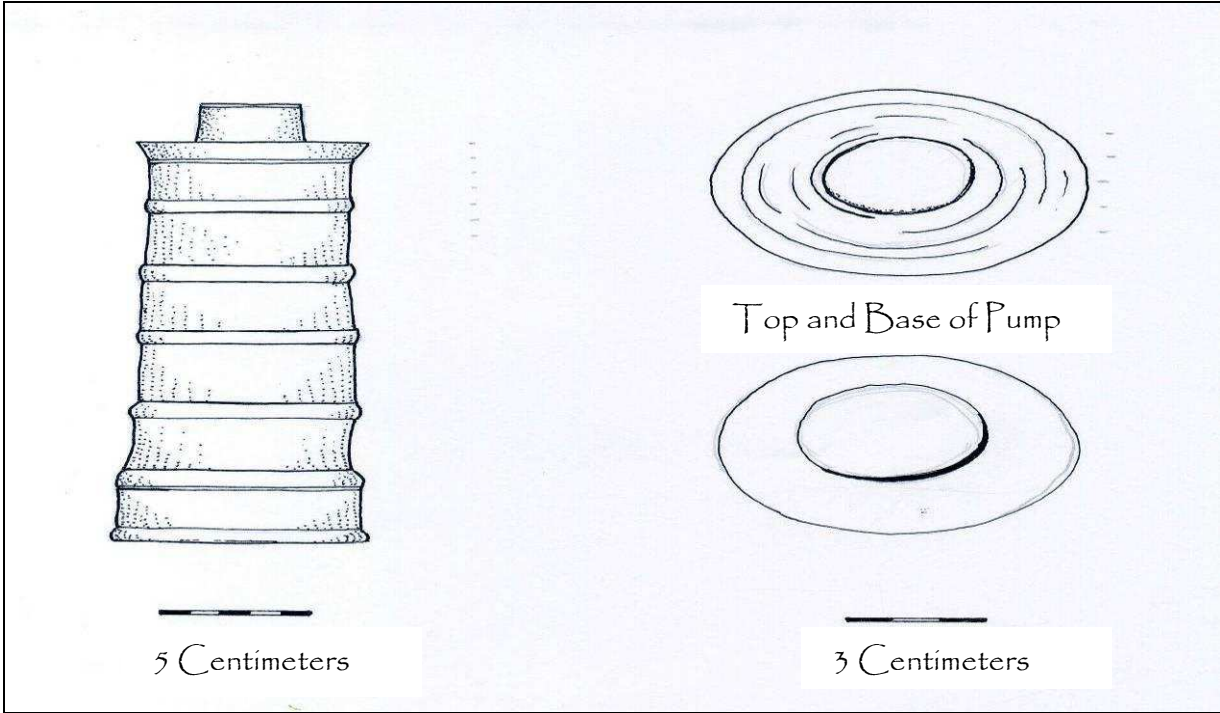
Appendix 8. Shallow Pewter Bowl



Appendix 9. Pewter Cups



Appendix 10. Pump or Syringe



Appendix 11. Photograph Inventory



5-Close up spade drift imprnt



4G_001-C3 artifacts (not in situ)



4G_002-C3 artifacts (not in situ)



IMG_003-C3



IMG_004-C3



IMG_005-C3



IMG_006-C3



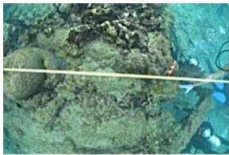
IMG_007-C8



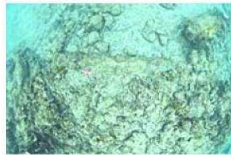
IMG_008-C9 w scale



IMG_009-C9 w scale



IMG_010-C9 w scale



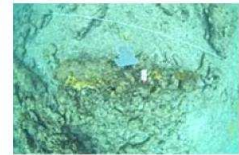
IMG_011-C10+C 11 from E



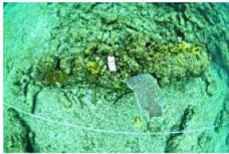
IMG_012-C11



IMG_013-C11



IMG_014-C11 w baseline



IMG_015-C11



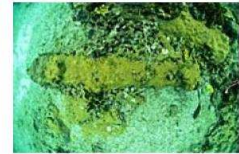
IMG_016-C13 from N



IMG_017-C13



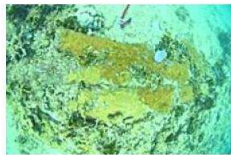
IMG_018-C14+C15



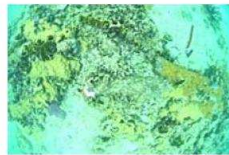
IMG_019-C14+C15



IMG_020-C14+C15



IMG_021-C18+C19+C20



IMG_022-C18+C19+C20



IMG_023-C18+C19+C20



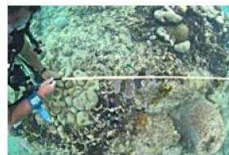
MG_024-C18 showing baselin



IMG_025-C18



IMG_026-C19



IMG_027-C21 w scale



IMG_028-C21 w scale



IMG_029-C22 w scale



IMG_030-C22 w scale



IMG_031-C23 w scale



IMG_032-C23 w scale



IMG_033-C24 w scale



IMG_034-C24 w scale



IMG_035-C25 w scale



IMG_036-Cannon pile



IMG_037-C pile



IMG_038-C pile



G_039-C pile C8 protruding +1



IMG_040-C pile from E



IMG_041-C pile from E



IMG_042-C pile from N



IMG_043-C pile from N



IMG_044-C pile from N



IMG_045-C pile from W



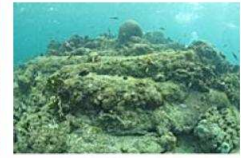
MG_046-C pile from W topside



_047-C pile showing most can



IMG_048-C pile W side



IMG_049-C pile W side



IMG_050-Group snorkling



IMG_051-Mapping



IMG_052-Recording-Chelsea



IMG_053-Excavating C3



IMG_054-Over C8-Stephen



IMG_055-Recording-Jana



IG_056-Recording-Jana+Lelair



057-Recording-Jana, Leland +



IMG_058-Recording-Calvin



IMG_059-Mapping-Calvin



G_060-Measuring-Laurel+Rot



IMG_061-Profiling site-Barry



IMG_062-Profiling site-Barry



G_063-Recording-Jana+Steph



IMG_064-Measuring planktonic sec



IMG_065-Crowd in excavation



IMG_066-Measuring planktonic sec



IMG_067-Recording-Laurel



IMG_068-Measuring-Tom+Laur



IMG_069-Recording-Stephen, Lynn



IMG_070-Angus+Robin



071-Examining-Tom, Laurel+B



MG_072-Measuring-Tom+Laur



MG_073-Planning-Laurel+Barr



IMG_074-Mapping-Leland



G_075-Excavating-Barry+Lau



IMG_076-Barry



IMG_077-Recording-Robin



IMG_078-Measuring-Leland



IMG_079-Measuring-Charles+Lel



IMG_080-Chelsea+Laurel inDraftin



IMG_081-Plaque Ready



IMG_082-Plaque Moving



IMG_083-Plaque about to lowe



IMG_084-Plaque inPlace



IMG_085-Clean-up Day



IMG_086-Clean-up Day



IMG_087-Clean-up Day



IMG_088-Clean-up Day



IMG_089-Clean-up Day



IMG_090-GuadelupeExhibit Da



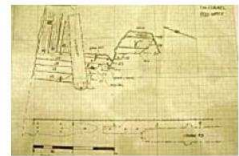
IMG_091-GuadelupeExhibit Da



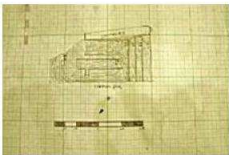
IMG_092-CaptKidd Ad



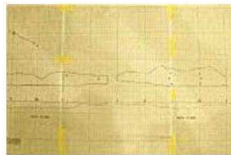
IMG_093-Siteplan



IMG_094-Plan-WoodPlanks



IMG_095-Plan-Wood N of C7



IMG_096-Plan-Timber



IMG_097- Conservation Lab Buil



IMG_098-Outside Conservation L



IMG_099-Lab Courtyard-Group



IMG_100-Lab Courtyard-Group



IMG_101-Conservation Tank Out



IMG_102-Conservation Tank Out



IMG_103-Cannon being conserv



IMG_104-Cannon 32-Pounder



IMG_105-Jana with Cannon



IMG_106-Lab Office



IMG_107-Lab Office



108-Conserved Artifacts pres



109-Conserved Artifacts pres



110-Conserved Artifacts pres



111-Conserved Artifacts pres



112-Conserved Artifacts pres



113-Conserved Artifacts pres



G_114-Vomiting Spatula-Char



G_115-Taino Container-Char



116-Conserved Items-Tablev



117-Conserved Items-Tablev



G_118-Conserved Items-Bottl



119-Conserved Artifacts-Navig



120-Conserved Artifacts-Wea



IMG_121-Conserved Artifacts



122-Conserved Religious Arti



123-Conserved Religious Arti



IMG_124-Conserved Bell



IMG_125-Conserved Cannon



IMG_126-Cannon Embossed



MG_127-Conserved Amphore



MG_128-Conserved Amphore



MG_129-Conserved Amphore



30-Back Room in Conservatic



131-Back Room in Conservatic



IMG_132-Back Room



IMG_133-Back Room



IMG_134-Back Room



IMG_135-Back Room



IMG_136-Back Room



IMG_137-Back Room



MG_138-Back Room-Francisc



139-Columbus Era Guns-Barry+F



IMG_140-Columbus Era Guns



IMG_141-Dive Helmet



IMG_142-Taino Club-Charlie



erved Artifacts-Laurel, Stephen



erved Artifacts-Laurel, Rodriguez



erved Artifacts-Stephen, Matt



IG_146-Drawing Artifacts-Ang



IG_147-Drawing Artifacts-Lau



3_148-Drawing Artifacts-Steph



3_149-Photographing Artifacts-T



150-Courtyard-Leland+Tom+



IMG_151-On Site-Total Stn



IMG_152-On Site-Total Stn



IMG_153-On Site-Total Stn



MG_154-Looking at shoreside



MG_155-Looking at shoreside



MG_156-Looking at shoreside



IMG_157-Shoreside



Total Stn work-Stephen, Calvin



Total Stn work-Stephen, Calvin



IMG_160-Total Stn work



al Stn work-Calvin, Barry, Chelsea



Total Stn work-Stephen, Calvin



33-Total Stn work-Matt, Calvin



34-With Stadia Rod-Stephen+Calvin



65-Total Stn work-Matt, Calvin



166-Total Stn work-Calvin+Barry



MG_167-Total Stn work-Calvin



3-Total Stn work-Calvin, Barry+Chelsea



IMG_169-Total Stn work-Barry



170-Total Stn work-Calvin+Barry



171-Total Stn work-Barry+Chelsea



IMG_172-Shoreside



73-On Site in Dinghy-Lindsay+Chelsea



74-Total Stn work-Chelsea+Stephen



5-With Stadia Rod-Chelsea+St



6-Total Stn work-Matt, Chelsea,St



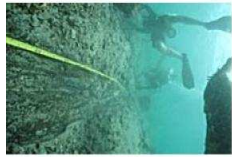
7-Total Stn work-Lydia, Matt+St



8-Total Stn work-Matt, Lydia+St



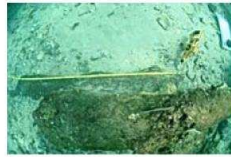
9-With Stadia Rod-Barry+Cl



10-N timber showing fastener



11-IMG_181-Baseline N+S timber



12-IMG_182-Baseline on S timber by



13-3-Baseline on S timber by cast



14-IMG_184-S timber thickness



15-IMG_185-S timber



16-IMG_186-S timber thickness



17-IMG_187-N timber fastener hole



18-IMG_188-N timber fastener hole



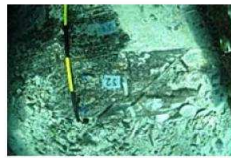
19-IMG_189-Overview looking W ove



20-IMG_190-Overview scarf joint N of



21-IMG_191-Scarf joint area N of C7 (w



22-IMG_192-Scarf joint (w scale)



23-IMG_193-Scarf joint profile (w sca



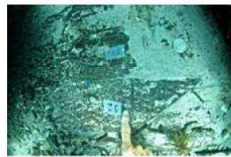
24-IMG_194-Scarf joint profile (w sca



25-IMG_195-Scarf joint w planks numt



26-IMG_196-Scarf joint w planks numt



27-IMG_197-Scarf joint w planks numt



28-IMG_198-Scarf joint (w scale)



29-IMG_199-Scarf joint (w scale)



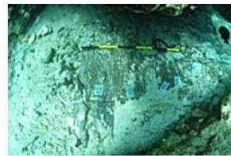
30-IMG_200-Scarf joint (w scale)



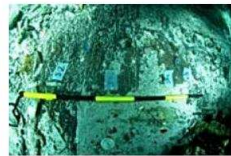
31-IMG_201-Planks N of C7-Steph



32-IMG_202-Plank angles N of C7-Lynn+



33-IMG_203-Planks N of C7 (w sca



34-IMG_204-Planks N of C7 (w sca



35-IMG_205-Planks 2 to 5 numbered N of C



36-IMG_206-Overview N Plank ang



37-IMG_207-Looking W at Wood N of C7 w fr



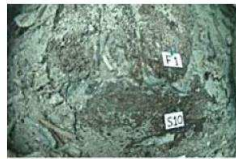
38-IMG_208-Overview N of C7



39-IMG_209-N of C7 Eroded frame im



210-Planks N of C7 w frame in



IMG_211-N of C7 frame imprt



IMG_212-N of C7 frame imprt



_213-N of C7 close-up frame i



IG_214-N of C7 frame imprt e



ooking W planks N of C7 fram



216-N of C7 looking W-Limber



217-N of C7 looking W-Limber



MG_218-Limber hole (w scale



MG_219-Limber hole (w scale



IMG_220-Limber hole



MG_221-Limber hole w F1 +F



MG_222-Limber hole w F1 +F



223-Limber hole w numbered p



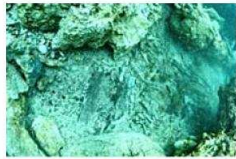
IMG_224-N of C7 overview



i_225-N of C7 overview lookin



i-N of C7 overview looking W



_227-N of C7 looking W from



228-Looking E at excavatn N



i_229-Plank11 thickness (w sc



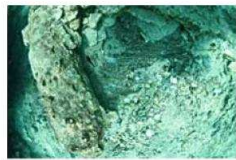
i_230-Plank11 thickness (w sc



31-Overview S of C7 plank se



232-Planks S of C7 profile (w



IMG_233-Planks S of C7



234-Trunnel +drift imprnt (w s



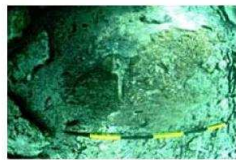
IMG_235-Trunnel



planks w drift imprnt +cement-L



3 planks w drift imprnt +cemer



3 planks w drift imprnt +cemer



3_239-Spade drift imprnt +cer



0-Close up spade drift imprnt -



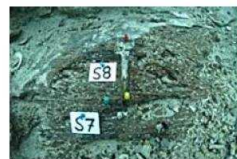
3_241-Spade drift imprnt +cer



3_242-Spade drift imprnt +cer



43-Profile Spade drift imprnt +



3_244-Spade drift imprnt +cer

Cannon Pile

NUMBER	LABEL	CAMERA TYPE	PEOPLE
IMG_001	C3 artifacts (not in situ)	Canon Power Shot G11	Calvin Mires
IMG_002	C3 artifacts (not in situ)	Canon Power Shot G11	
IMG_003	Cannon 3 (C3)	Canon Power Shot G11	
IMG_004	C3	Canon Power Shot G11	
IMG_005	C3	Canon Power Shot G11	Tom Horn + Calvin Mires
IMG_006	C3	Canon Power Shot G11	
IMG_007	C3	Canon Power Shot G11	Robin Croskery, Jana Otte + Barry Bleichner
IMG_008	C9 w scale	Canon Power Shot G11	
IMG_009	C9 w scale	Canon Power Shot G11	Calvin Mires
IMG_010	C9 w scale	Canon Power Shot G11	
IMG_011	C10+C 11 from E	Canon Power Shot G11	
IMG_012	C11	Canon Power Shot G11	
IMG_013	C11	Canon Power Shot G11	
IMG_014	C11 w baseline	Canon Power Shot G11	
IMG_015	C11	Canon Power Shot G11	
IMG_016	C13 from N	Canon Power Shot G11	
IMG_017	C13	Canon Power Shot G11	
IMG_018	C14+C15	Canon Power Shot G11	
IMG_019	C14+C15	Canon Power Shot G11	
IMG_020	C14+C15	Canon Power Shot G11	
IMG_021	C18+C19+C20	Canon Power Shot G11	
IMG_022	C18+C19+C20	Canon Power Shot G11	
IMG_023	C18+C19+C20	Canon Power Shot G11	
IMG_024	C18 showing baseline	Canon Power Shot G11	
IMG_025	C18	Canon Power Shot G11	Charles Bowdoin
IMG_026	C19	Canon Power Shot G11	
IMG_027	C21 w scale	Canon Power Shot G11	Calvin Mires
IMG_028	C21 w scale	Canon Power Shot G11	Stephen Sanchagrin
IMG_029	C22 w scale	Canon Power Shot G11	Calvin Mires + Stephen Sanchagrin
IMG_030	C22 w scale	Canon Power Shot G11	Calvin Mires + Stephen Sanchagrin
IMG_031	C23 w scale	Canon Power Shot G11	Calvin Mires
IMG_032	C23 w scale	Canon Power Shot G11	Calvin Mires + Stephen Sanchagrin
IMG_033	C24 w scale	Canon Power Shot G11	Calvin Mires + Stephen Sanchagrin
IMG_034	C24 w scale	Canon Power Shot G11	Calvin Mires + Stephen Sanchagrin
IMG_035	C25 w scale	Canon Power Shot G11	
IMG_036	Cannon pile	Canon Power Shot G11	
IMG_037	C pile	Canon Power Shot G11	Stephen Sanchagrin
IMG_038	C pile	Canon Power Shot G11	
IMG_039	C pile C8 protruding +C9	Canon Power Shot G11	Jana Otte + others
IMG_040	C pile from E	Canon Power Shot G11	
IMG_041	C pile from E	Canon Power Shot G11	
IMG_042	C pile from N	Canon Power Shot G11	
IMG_043	C pile from N	Canon Power Shot G11	Jana Otte
IMG_044	C pile from N	Canon Power Shot G11	Stephen Sanchagrin
IMG_045	C pile from W	Canon Power Shot G11	
IMG_046	C pile from W topside	Canon Power Shot G11	
IMG_047	C pile showing most cannons	Canon Power Shot G11	
IMG_048	C pile W side	Canon Power Shot G11	
IMG_049	C pile W side	Canon Power Shot G11	

Crew Working Shots

NUMBER	LABEL	CAMERA TYPE	DATE	PEOPLE
IMG_050	Group snorkling	Canon Power Shot G11	9/11/2011	Tom, Chelsea, Angus, Stephen, Calvin, Matthew, Lydia
IMG_051	Mapping	Canon Power Shot G11	9/15/2011	
IMG_052	Recording-Chelsea	Canon Power Shot G11	9/15/2011	Chelsea Hauck
IMG_053	Excavating C3	Canon Power Shot G11	9/15/2011	Laurel Seaborn
IMG_054	Over C8-Stephen	Canon Power Shot G11	9/15/2011	Stephen Sanchagrin + Robin Croskery
IMG_055	Recording-Jana	Canon Power Shot G11	9/15/2011	Jana Otte
IMG_056	Recording-Jana+Leland	Canon Power Shot G11	9/15/2011	Jana Otte + Leland Geletka
IMG_057	Recording-Jana, Leland +Barry	Canon Power Shot G11	9/15/2011	Jana Otte, Leland Geletka + Barry Bleichner
IMG_058	Recording-Calvin	Canon Power Shot G11	9/19/2011	Calvin Mires
IMG_059	Mapping-Calvin	Canon Power Shot G11	9/19/2011	Calvin Mires + others
IMG_060	Measuring-Laurel+Robin	Canon Power Shot G11	9/19/2011	Laurel Seaborn + Robin Croskery
IMG_061	Profiling site-Barry	Canon Power Shot G11	9/21/2011	Barry Bleichner
IMG_062	Profiling site-Barry	Canon Power Shot G11	9/21/2011	Angus McKellar + Barry Bleichner
IMG_063	Recording-Jana+Stephen	Canon Power Shot G11	9/21/2011	Jana Otte + Stephen Sanchagrin
IMG_064	Measuring planking section	Canon Power Shot G11	9/21/2011	Robin Croskery, Angus McKellar, Stephen Sanchagrin + J
IMG_065	Crowd S of cannon pile	Canon Power Shot G11	9/21/2011	Jana Otte, Stephen Sanchagrin, Angus McKellar, Robin C
IMG_066	Measuring planking section	Canon Power Shot G11	9/21/2011	Jana Otte, Stephen Sanchagrin, Laurel Seaborn, Angus M
IMG_067	Recording-Laurel	Canon Power Shot G11	9/21/2011	Laurel Seaborn
IMG_068	Measuring-Tom+Laurel	Canon Power Shot G11	9/21/2011	Tom Horn + Laurel Seaborn
IMG_069	Recording-Stephen, Lynn +Jana	Canon Power Shot G11	9/21/2011	Stephen Sanchagrin, Lynn Harris + Jana Otte
IMG_070	Recording-Robin+Angus	Canon Power Shot G11	9/21/2011	Robin Croskery + Angus McKellar
IMG_071	Examining-Tom, Laurel+Beeker	Canon Power Shot G11	9/21/2011	Tom Horn, Charlie Beeker + Laurel Seaborn
IMG_072	Measuring-Laurel+Tom	Canon Power Shot G11	9/21/2011	Laurel Seaborn + Tom Horn
IMG_073	Planning-Laurel+Barry	Canon Power Shot G11	9/22/2011	Laurel Seaborn + Barry Bleichner
IMG_074	Mapping-Leland	Canon Power Shot G11	9/22/2011	Leland Geletka
IMG_075	Excavating-Barry+Laurel	Canon Power Shot G11	9/22/2011	Barry Bleichner + Laurel Seaborn
IMG_076	Barry	Canon Power Shot G11	9/22/2011	Barry Bleichner
IMG_077	Recording-Robin	Canon Power Shot G11	9/22/2011	Robin Croskery
IMG_078	Measuring-Leland	Canon Power Shot G11	9/24/2011	Leland Geletka
IMG_079	Measuring-Charles+Leland	Canon Power Shot G11	9/24/2011	Charles Bowdoin + Leland Geletka

Above Water Shots

NUMBER	LABEL	CAMERA TYPE	DATE	PEOPLE	PHOTO CREDIT
IMG_080	Chelsea + Laurel in Drafting Lab	Sanyo Digital Camera	9/11/2011	Chelsea Hauck + Laurel Seaborn	Jana Otte
IMG_081	Plaque Ready	Canon EOS 7D	9/13/2011	Billy, Lynn Harris + pthers	
IMG_082	Plaque Moving	Canon EOS 7D	9/13/2011		
IMG_083	Plaque about to lower	Canon EOS 7D	9/13/2011		
IMG_084	Plaque inPlace	Canon Power Shot G11	9/24/2011		
IMG_085	Clean-up Day	Canon Power Shot G11	9/17/2011	Participants	
IMG_086	Clean-up Day	Canon Power Shot G11	9/17/2011	Participants	
IMG_087	Clean-up Day	Canon Power Shot G11	9/17/2011	Participants	
IMG_088	Clean-up Day	Canon Power Shot G11	9/17/2011	Participants	
IMG_089	Clean-up Day	Canon Power Shot G11	9/17/2011	Participants	
IMG_090	GuadalupeExhibit Day	Canon Power Shot G11	9/18/2011	Stephen, Charles, Calvin, Robin, Angus, Laurel	
IMG_091	GuadalupeExhibit Day	Canon Power Shot G11	9/18/2011	Jana, Lindsay, Matt, Calvin, Charles, Laurel	
IMG_092	Capt Kidd ad	Canon Power Shot G11	9/18/2011		
IMG_093	Site plan	Canon Power Shot G11	9/24/2011		
IMG_094	Plan-WoodPlanks	Canon Power Shot G11	9/24/2011		
IMG_095	Plan-Wood N of C7	Canon Power Shot G11	9/24/2011		
IMG_096	Plan-Timber	Canon Power Shot G11	9/24/2011		

Above Water Shots (Cont)

NUMBER	LABEL	CAMERA TYPE	DATE	PEOPLE
IMG_151	On Site-Total Stn	Canon EOS 7D	9/12/2011	
IMG_152	On Site-Total Stn	Canon EOS 7D	9/12/2011	Leland Geletka + Calvin Mires
IMG_153	On Site-Total Stn	Canon EOS 7D	9/12/2011	Leland Geletka + Calvin Mires
IMG_154	Looking at shoreside	Canon Power Shot G11	9/18/2011	Group
IMG_155	Looking at shoreside	Canon Power Shot G11	9/18/2011	Group
IMG_156	Looking at shoreside	Canon Power Shot G11	9/18/2011	Group
IMG_157	Shoreside	Canon Power Shot G11	9/18/2011	
IMG_158	Total Stn work-Stephen, Calvin+Chelsea	Canon Power Shot G11	9/18/2011	Stephen Sanchagrin, Calvin Mires, Chelsea Hauck
IMG_159	Total Stn work-Stephen, Calvin+Chelsea	Canon Power Shot G11	9/18/2011	Stephen Sanchagrin, Calvin Mires, Chelsea Hauck
IMG_160	Total Stn work	Canon Power Shot G11	9/18/2011	
IMG_161	Total Stn work-Calvin,Barry,Chelsea+Stephe	Canon Power Shot G11	9/18/2011	Calvin Mires, Barry Bleichner, Chelsea Hauck + Stephen Sanchagrin
IMG_162	Total Stn work-Stephen, Calvin+Chelsea	Canon Power Shot G11	9/18/2011	Stephen Sanchagrin, Calvin Mires + Chelsea Hauck
IMG_163	Total Stn work-Matt, Calvin +Barry	Canon Power Shot G11	9/18/2011	Matt Mouse, Calvin Mires + Barry Bleichner
IMG_164	With Stadia Rod-Stephen+Chelsea	Canon Power Shot G11	9/18/2011	Stephen Sanchagrin + Chelsea Hauck
IMG_165	Total Stn work-Matt, Calvin+Barry	Canon Power Shot G11	9/18/2011	Matt Mouse, Calvin Mires + Barry Bleichner
IMG_166	Total Stn work-Calvin+Barry	Canon Power Shot G11	9/18/2011	Calvin Mires + Barry Bleichner
IMG_167	Total Stn work-Calvin	Canon Power Shot G11	9/18/2011	Calvin Mires
IMG_168	Total Stn work-Calvin,Barry +Stephen	Canon Power Shot G11	9/18/2011	Calvin Mires, Barry Bleichner + Stephen Sanchagrin
IMG_169	Total Stn work-Barry	Canon Power Shot G11	9/18/2011	Barry Bleichner
IMG_170	Total Stn work-Calvin+Barry	Canon Power Shot G11	9/18/2011	Calvin Mires + Barry Bleichner
IMG_171	Total Stn work-Barry+Calvin	Canon Power Shot G11	9/18/2011	Barry Bleichner + Calvin Mires
IMG_172	Shoreside	Canon Power Shot G11	9/18/2011	
IMG_173	On Site in Dinghy-Lindsay+Laurel	Canon Power Shot G11	9/18/2011	Lindsay Scott + Laurel Seaborn
IMG_174	Total Stn work-Chelsea+Stephen	Canon Power Shot G11	9/18/2011	Chelsea Hauck + Stephen Sanchagrin
IMG_175	With Stadia Rod-Chelsea+Stephen	Canon Power Shot G11	9/18/2011	Chelsea Hauck + Stephen Sanchagrin
IMG_176	Total Stn work-Matt, Chelsea,Stephen+Barry	Canon Power Shot G11	9/18/2011	Matt Mouse, Chelsea Hauck, Stephen Sanchagrin +Barry Bleichner
IMG_177	Total Stn work-Lydia, Matt+Stephen	Canon Power Shot G11	9/18/2011	Lydia, Matt Mouse +Stephen Sanchagrin
IMG_178	Total Stn work-Matt, Lydia+Stephen	Canon Power Shot G11	9/18/2011	Matt, Lydia Mouse +Stephen Sanchagrin
IMG_179	With Stadia Rod-Barry+Chelsea	Canon Power Shot G11	9/18/2011	Barry Bleichner + Chelsea Hauck

Timber

NUMBER	LABEL	CAMERA TYPE	DATE	PEOPLE
IMG_180	N timber showing fastener holes	Canon Power Shot G11	9/21/2011	
IMG_181	Baseline N+S timber	Canon Power Shot G11	9/21/2011	
IMG_182	Baseline on S timber by C3	Canon Power Shot G11	9/21/2011	
IMG_183	Baseline on S timber by cascabel C3	Canon Power Shot G11	9/21/2011	
IMG_184	S timber thickness	Canon Power Shot G11	9/22/2011	
IMG_185	S timber	Canon Power Shot G11	9/22/2011	
IMG_186	S timber thickness	Canon Power Shot G11	9/22/2011	
IMG_187	N timber fastener holes	Canon Power Shot G11	9/22/2011	
IMG_188	N timber fastener holes	Canon Power Shot G11	9/21/2011	
IMG_189	Overview looking W over C7	Canon Power Shot G11	9/21/2011	
IMG_190	Overview scarf joint N of C7	Canon Power Shot G11	9/21/2011	
IMG_191	Scarf joint area N of C7 (w scale)	Canon Power Shot G11	9/21/2011	
IMG_192	Scarf joint (w scale)	Canon Power Shot G11	9/21/2011	
IMG_193	Scarf joint profile (w scale)	Canon Power Shot G11	9/21/2011	
IMG_194	Scarf joint profile (w scale)	Canon Power Shot G11	9/21/2011	
IMG_195	Scarf joint w planks numbered	Canon Power Shot G11	9/22/2011	
IMG_196	Scarf joint w planks numbered	Canon Power Shot G11	9/22/2011	
IMG_197	Scarf joint w planks numbered	Canon Power Shot G11	9/21/2011	
IMG_198	Scarf joint (w scale)	Canon Power Shot G11	9/15/2011	
IMG_199	Scarf joint (w scale)	Canon Power Shot G11	9/15/2011	
IMG_200	Scarf joint (w scale)	Canon Power Shot G11	9/15/2011	
IMG_201	Planks N of C7-Stephen	Canon Power Shot G11	9/21/2011	
IMG_202	Plank angles N of C7-Lynn+Charlie	Canon Power Shot G11	9/21/2011	
IMG_203	Planks N of C7 (w scale)	Canon Power Shot G11	9/21/2011	
IMG_204	Planks N of C7 (w scale)	Canon Power Shot G11	9/21/2011	
IMG_205	Planks 2 to 5 numbered N of C7 (w scale)	Canon Power Shot G11	9/22/2011	
IMG_206	Overview N Plank angles	Canon Power Shot G11	9/21/2011	Jana Otte
IMG_207	Looking W at N of C7 w Eroded frame imprnt	Canon Power Shot G11	9/21/2011	Laurel Seaborn + Lynn Harris
IMG_208	Overview N of C7	Canon Power Shot G11	9/22/2011	Laurel Seaborn + Robin Croskery
IMG_209	N of C7 Eroded frame imprints	Canon Power Shot G11	9/15/2011	
IMG_210	Planks N of C7 w frame imprnts	Canon Power Shot G11	9/22/2011	
IMG_211	N of C7 frame imprt	Canon Power Shot G11	9/22/2011	
IMG_212	N of C7 frame imprt	Canon Power Shot G11	9/22/2011	
IMG_213	N of C7 close-up frame imprt	Canon Power Shot G11	9/22/2011	
IMG_214	N of C7 frame imprt end	Canon Power Shot G11	9/22/2011	
IMG_215	Looking W planks N of C7 frame imprt end	Canon Power Shot G11	9/22/2011	
IMG_216	N of C7 looking W-Limber hole	Canon Power Shot G11	9/21/2011	
IMG_217	N of C7 looking W-Limber hole	Canon Power Shot G11	9/21/2011	
IMG_218	Limber hole (w scale)	Canon Power Shot G11	9/15/2011	
IMG_219	Limber hole (w scale)	Canon Power Shot G11	9/15/2011	
IMG_220	Limber hole	Canon Power Shot G11	9/19/2011	
IMG_221	Limber hole w F1 + F2	Canon Power Shot G11	9/22/2011	
IMG_222	Limber hole w F1 + F2	Canon Power Shot G11	9/22/2011	
IMG_223	Limber hole w numbered planks	Canon Power Shot G11	9/22/2011	
IMG_224	N of C7 overview	Canon Power Shot G11	9/22/2011	Lynn Harris
IMG_225	N of C7 overview looking W	Canon Power Shot G11	9/22/2011	Angus McKellar + Lynn Harris
IMG_226	N of C7 overview looking W from S11	Canon Power Shot G11	9/22/2011	
IMG_227	N of C7 looking W from S11	Canon Power Shot G11	9/22/2011	Jana Otte + Stephen Sanchagrín
IMG_228	Looking E at excavatn N of C7	Canon Power Shot G11	9/21/2011	
IMG_229	Plank11 thickness (w scale)	Canon Power Shot G11	9/22/2011	
IMG_230	Plank11 thickness (w scale)	Canon Power Shot G11	9/22/2011	
IMG_231	Overview S of C7 plank sections	Canon Power Shot G11	9/21/2011	
IMG_232	Planks S of C7 profile (w scale)	Canon Power Shot G11	9/21/2011	
IMG_233	Planks S of C7	Canon Power Shot G11	9/21/2011	
IMG_234	Trunnel +drift imprnt (w scale)	Canon Power Shot G11	9/21/2011	
IMG_235	Trunnel	Canon Power Shot G11	9/21/2011	
IMG_236	S planks w drift imprnt +cement-Lynn+Charli	Canon Power Shot G11	9/21/2011	Lynn Harris + Charlie Beeker
IMG_237	S planks w drift imprnt +cement (w scale)	Canon Power Shot G11	9/21/2011	
IMG_238	S planks w drift imprnt +cement (w scale)	Canon Power Shot G11	9/21/2011	
IMG_239	Spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_240	Close up spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_241	Spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_242	Spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_243	Profile Spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_244	Spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	
IMG_245	Close up spade drift imprnt +cement	Canon Power Shot G11	9/22/2011	

Appendix 12. Cultural Resource Legislation in the Dominican Republic

Law No. 41-00

WHEREAS, Article 8, Section 16, second paragraph of the Constitution provides that the State "seek the widest possible dissemination of science and culture, providing an appropriate manner that all people benefit from the results of scientific and moral ";

WHEREAS, Article 101 of the Constitution provides that "all artistic and historic wealth of the country, whoever the owner, will be part of the cultural heritage of the nation and is under the protection of the state", that also the said Constitution states that the Act is set as appropriate for the preservation and protection of such heritage;

WHEREAS, Article 37, paragraph 5 and 23 of the Constitution put in charge of Congress have everything related to the conservation of monuments and antiquities, and the acquisition of the latter, and legislate on all matters that is not within the jurisdiction of another branch of government or contrary to the Constitution;

WHEREAS, pursuant to the provisions of Articles 61 and 62 of the Constitution for the dispatch of business of public administration will be the Secretaries of State that are created by the law, which also determine the powers of the Secretaries of State;

WHEREAS: In the country there is a set of state institutions of cultural character, created by law and some others by virtue of decrees issued by the Executive, and which operate under the jurisdiction of different State Departments or independently, without there is a higher level body to coordinate their activities;

WHEREAS: The State has invested and invests significant resources in the creation, maintenance and support of such cultural institutions, and continue to invest in the creation of

others, so you must ensure optimum performance of social spending in the activities cultural, as a way of getting them involved the largest number of Dominicans;

WHEREAS, by Decree No. 82-97 of February 14, 1997, the Executive created the Presidential Council of Culture, as a deliberative body with functions of a managerial and administrative, in order to coordinate, organize, promote, monitor and evaluate the cultural sector initiatives state and establish the conditions for the formation of a Ministry of Culture;

WHEREAS, to achieve the goals and objectives of cultural development requires the creation of a Secretary of State for Culture, to which are attached all relevant agencies and institutions of the state cultural sector and those who believe in the future, corresponding the Secretariat of State to design a state policy on culture, processing, sanction and implement plans for cultural development, with projects and programs of the different areas, taking into account among other things, mainly the promotion of creativity in all its orders, support for cultural managers, streamlining material and human resources devoted to cultural activities, producing the greatest amount of cultural goods and services of high quality for enjoyment and more equitable access by all sectors of both rural and urban population and their participation in the modernization and construction of a more democratic society. In this context, the Secretary of State for Culture direct its action towards the establishment of a national culture that creatively articulate one hand, the diversity of agencies, institutions and existing initiatives, and the other promoting the decentralization of public action in the field of culture;

PARAGRAPH .- The figure of a National Culture System allows functions and responsibilities are shared at different levels, providing a broader engagement process, which includes, in addition to the administrative local, regional, and national and other stakeholders creators, artists, community leaders, neighborhood associations, etc..;

WHEREAS: The Dominican Republic is a signatory to many international conventions and agreements relating to the protection and preservation of cultural and natural heritage, the illicit trade in cultural property inventory procedures, as well as other international declarations and agreements signed or be pending, whose principles should be taken into account in implementing the State's cultural programming.

NATIONAL CONGRESS

On Behalf of the Republic

HAS THE FOLLOWING LAW

TITLE I

DEFINITIONS AND PRINCIPLES

Chapter I

Definitions

Article 1 .- This law adopts and endorses the generally accepted definitions in the field of cultural legislation, as indicated below:

- c. **By culture** is meant the set of distinctive spiritual, material, intellectual and emotional features that characterize human groups and comprising in addition to art and literature, lifestyles and coexistence, human rights, value systems and symbols , traditions and beliefs espoused by the collective consciousness as their own.
- d. **The Nation's cultural heritage** includes all goods, values and cultural symbols that are intangible and tangible expression of the Dominican nation, such as traditions, customs and habits, as well as the set of goods, including those submerged in water tangible and intangible, movable and immovable, and that have special historical, artistic, aesthetic, plastic, architectural, urban, archaeological, environmental, ecological, linguistic, audio, musical, audiovisual, film, science, technology, testimonial, documentary, literary, bibliographical, museological, anthropological and demonstrations, products and representations of popular culture.
- e. **Cultural policy** is a set of operational principles of social, conscious and deliberate, administrative procedures and budget intervention or no intervention, which should form the basis for state action aimed at the satisfaction of certain cultural needs the community through the optimum utilization of all human and material resources at its disposal a society at a given time.

- f. **Cultural development** is the process of promotion of all factors that could significantly increase the level of cultural life of the population, ie, the degree of access or participation in cultural life of the community.
- g. **Cultural life** refers to the set of practices and attitudes that impact on the ability of human beings to express themselves, be in the world, create their environment and communicate with other cultures.
- h. **National cultural identity** is the feeling of belonging to a community, united by history and traditions of the Dominican people and a shared development project within a framework of equality in human dignity and respect for difference. The promotion of cultural identity is conceived as a comprehensive strategy to preserve, conserve, and protect the tangible and intangible cultural heritage of the nation as a nation's cultural defense against the expansion of others, to protect its ravages the real lifestyles of the people.
- i. **Creator** is any person or group of people generate goods and cultural products, from the imagination, sensibility, thought and creativity. Creative expressions as free demonstrations of human thought, generate identity, belonging and enrich the cultural diversity of the country.
- j. **Cultural manager** is a person that promotes cultural processes within communities and organizations and institutions, through participation, democratization and decentralization of the promotion of cultural activity. Also, the cultural manager, coordinates and ongoing activity, the actions of management, planning, monitoring and evaluation of plans, programs, actions and projects of the institutions and cultural organizations and community cultural events.
- k. **National Culture** is the set of instances and processes of institutional development, planning and information-articulated, that facilitate the cultural development and community access to cultural goods and services according to the principles of decentralization, participation and autonomy.

Chapter II

Fundamental Principles

Article 2 .- adopt this law, as a state policy the fundamental principles set out below:

- v. The Dominican culture in its many forms is the basis of nationality and the activity of the Dominican society as a whole, as individual and collective process generated by the Dominicans. These demonstrations are an integral part of Dominican culture and identity, feed, in addition, the high values of universal culture and enrich each other.
- vi. Everyone has the right to participate freely in cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits resulting therefrom.
- vii. Everyone is entitled to the protection of the moral and material interests resulting from the scientific, literary or artistic production of which is the author.
- viii. Respect for human rights, peaceful coexistence and understanding between peoples, participatory democracy, solidarity, multiculturalism, pluralism, tolerance, gender equality and international cooperation based on political and economic order are fundamental cultural values.

- ix. The State will promote and encourage the processes, projects and cultural activities within a framework of recognition and respect for diversity and cultural variety of the Dominican nation.
- x. The state protects the Spanish language as official language of the Dominican Republic.
- xi. The state, in any case, no censorship on the form and ideological content and artistic achievements and cultural projects, and also guarantees the free flow and dissemination of all kinds of cultural, scientific and technological research.
- xii. It is an obligation of the State and people appreciate, protect, recover and disseminate the cultural heritage of the nation.
- xiii. The State shall promote free research and research training and the development of scientific activities within the parameters of quality, academic rigor and consistency.
- xiv. The economic and social development should be coordinated with the cultural, educational, scientific, technological, respecting the protection of the environment.
- xv. Public funds have invested in cultural activities, the nature of social spending.
- xvi. The State shall promote the creation, extension and improvement of arts and cultural infrastructure and ensure access for all Dominicans to them.
- xvii. The State, in formulating cultural policy, take into account the creators, managers and receivers of culture and ensure access for all Dominicans to the demonstrations, cultural goods and services on equal opportunities. They give special treatment to people with physical, sensory and psychic, seniors, children and youth and social sectors most in need.

TITLE II

THE MINISTRY OF CULTURE

Chapter I

Object and Scope of the Secretariat

Article 3 .- Creation of the Ministry of Culture, as top-level instance, charged with coordinating the National System of Culture of the Dominican Republic, and will be responsible for the execution and implementation of policies, plans, programs and cultural development projects, subject to the training process established in the General Law of Education.

Article 4 .- The Secretary of State for Culture, as an organ of executive power will represent the State in all cultural activities and liaise with public and private institutions, whether or not the cultural sector, both nationally and internationally .

Article 5 .- The Secretary of State for Culture, to implement cultural policy, take into account the following objectives:

- e. Ensuring the right of all citizens to participate in cultural life and enjoy the benefits of cultural development;
- f. Preserving the cultural heritage of the Nation tangible and intangible, as a fundamental element of national identity;
- g. Support and encourage individuals, communities and institutions dedicated to the development or promotion of artistic and cultural expression in the different territorial areas;
- h. Monitor compliance with international agreements on culture;
- i. Develop programs and special projects in the border area of the country.

Chapter II

Of the institutions of the Ministry

Article 6 .- From this law are transferred to depend directly on the Ministry of Culture and as such, their jurisdiction subordinate administrative, technical and budget, the following public institutions, agencies and departments of cultural administration State:

- a. General Archive of the Nation
- b. The Dominican National Commission for UNESCO
- c. National Library, the Library Dominican Republic, and other libraries in the state, except for municipal and school
- d. American Center for Microfilming and Restoration of Documents, Books and Photography (CENTROMDCA)
- e. Events and Exhibition Centre
- f. National Center for Crafts (CENADARTE)
- g. National Commission of Public Entertainment and Radio
- h. Building Commission and Atmosphere of Historical Documents of the City of Santo Domingo
- i. National Bureau of Underwater Cultural Heritage
- j. Standing Committee of the National Book Fair
- k. Regional Commissions, Provincial and Municipal Historical Sites and Monuments or institutions acting in their
- l. Department of Fine Arts and its dependencies:
 - a. National Conservatory of Music
 - b. National School of Dance
 - c. National School of Fine Arts
 - d. School of Dramatic Art
 - e. National Symphony Orchestra
 - f. National Ballet
 - g. National Folk Ballet
 - h. Fine Arts Theatre
 - i. Dominican Traveling Theater

- j. National Choir
 - k. Lyric Singers
 - l. National Music Archive
 - m. Official Academy of Music.
 - n. Elementary Music Elil Mena
 - m. Columbus Lighthouse
 - n. Gran Teatro del Cibao
 - o. Museum of Modern Art (MAM)
 - p. Museo de las Casas Reales
 - q. Natural History Museum
 - r. Museum of Dominican Man
 - s. National Museum of History and Geography
 - t. National Office of Copyright
 - u. Office of Cultural Heritage
 - v. Trustees of the Colonial City
 - w. Cultural Center of Santiago
 - x. Board of the Plaza de la Cultura in Santiago and its dependencies and buildings
 - y. National Theatre
 - z. National Film
 - aa. All national systems and institutions of the cultural sector created by decree
- Paragraph .- In the organic and functional regulation of the Secretariat shall specify the status and degree of autonomy enjoyed by these institutions.

Article 7 .- be transferred to the Ministry of Culture all buildings, furniture, equipment, materials and all resources, whatever their class, held by the agencies that are transferred by this Act.

Article 8 .- The entire staff of the institutions built by this Act to the Secretary of State for Culture depend in front of the Secretariat.

TITLE III

ORGANIZATIONAL STRUCTURE OF THE SECRETARIAT

Chapter I

Bodies of

Article 9 .- In carrying out its functions, the Ministry of Culture will serve all agencies through three key areas of technical management, which are:

- Cultural heritage;
- Technical and administrative;
- Creativity and cultural participation.

Article 10 .- The Ministry of Culture will be organized in the following sectors:

- Superior decision-making body: National Council of Culture;
- Superior driving Organ: Secretary of State for Culture;
- Technical organ of cultural heritage: Secretary of State for Cultural Heritage;
- Technical and administrative bodies: Administrative Assistant Secretary of State;
- Technical organ of creativity and popular participation: Secretary of State for Creativity and Popular Participation
- Decentralized bodies:
 - Provincial Councils Cultural Development;
 - Cultural Development Municipal Councils.

Paragraph I .- The Secretary of State for Culture will place studies to establish joint mechanisms and ways of working between these decentralized agencies and Provincial Development Councils created by Decree No.613-96.

Paragraph II .- The Secretary of State for Culture will have the following management structure:

- a. Secretary of State;
- b. Sub-secretaries;
- c. DGs;
- d. Directions;
- e. Departments;
- f. Divisions;
- g. Sections;
- h. Units.

Article 11 .- The functions of the Ministry of Culture will be held through its central and decentralized bodies that depend on it. For the good performance of the tasks entrusted to it, the Secretariat will have the structure that agrees this law and the regulations are in effect.

Article 12 .- The structure will encourage the establishment of the matrix management system and program as a means of focusing attention on issues that do not require variables a permanent organization. This will seek to respond to the diversity of problems and important interests to be addressed by management over time and adapt to new circumstances.

Chapter II

The National Council of Culture

Article 13 .- The National Cultural Council is the highest decision-making and cultural policy with Secretary of State for Culture is the body responsible for setting the overall direction of cultural policies and to ensure unity of action among institutions private and public cultural activities and actions performed.

Article 14 .- The National Council for Culture will have the financial resources and technical and administrative support required, made available by the Ministry of Culture. This will have an operating budget prepared by the Board and included in the annual budget prepared by the Secretariat.

Article 15 .- At the first meeting of each year, the Council shall elect a person with recognized expertise and intellectual capacity as Secretary. Its functions shall be established in an internal regulation to be prepared and endorsed by the Council within ninety days after installation.

Article 16 .- The Council shall be chaired by the Secretary of State for Culture or the branch secretary, who is permanently commissioned by the Secretary for this purpose.

Article 17 .- The National Cultural Council shall consist of:

- a.The Secretary of State for Culture or his representative;
- b.The three secretaries of state of the portfolio;
- c.The Secretary of Education or his representative;
- d.The Administrative Secretary of the Presidency or its representative;
- e.The Secretary of State for Tourism or his representative;
- f.The Secretary of State for Sports or his representative;
- g.Two representatives of the artists;
- h.A representative of the intellectuals;
- i.A representative of the specialists and researchers on culture;
- j.A representative of the specialists and researchers on the environment;
- k.A representative of community cultural organizations;
- l.A representative of the Provincial Development Councils;
- m.A representative of the municipal power;

- n. A representative of the private business sector;
- o. A representative of private cultural foundations;
- p. Four outstanding personalities of the cultural sector, appointed by the President of the Republic.

Paragraph .- The sectors to be represented on the Council will be consulted by the Secretary of State for Culture, in order to submit a slate, that the President chooses from it the person who will hold such representation.

Article 18 .- The functions and powers of the National Council of Culture:

- I. Ensure compliance with the purposes, principles, objectives and responsibilities outlined in this law;
- II. Defining the cultural politics of the nation that have a normative character to the public and private institutions provide a framework of reference required to make management processes, technical support, planning and cultural and institutional development;
- III. Promote the national debate to outline the cultural development plans and seek wider participation of civil society and the agents and cultural workers;
- IV. Know and approve plans for cultural development as an expression of cultural policies consensual process of negotiation with civil society and all cultural workers;
- V. Coordinate their actions with the National Planning Office and other institutions and individuals to be determined by the organic and functional regulation of the Secretariat, according to Law No. 55 of November 22, 1965, establishing the National Planning System;
- VI. Make revisions and updates of cultural development plans, to make them functional and dynamic, incorporating an external evaluation mechanism that allows the Secretary of State for Culture to systematically balance their management;
- VII. Authorize the creation of new cultural institutions officers, assign roles and budgets and other material resources for better performance;
- VIII. Discuss, approve and monitor the development and refinement of the curriculum of higher institutions of training in cultural management and training of cultural workers;
- IX. Establish the basis for the creation of a national system for assessing the quality of cultural goods and services;
- X. Advise public and private institutions in the definition of internal politics and actions related to cultural affairs, attaching importance to the advice of cultural policies to be applied by the Secretary of State for Foreign Affairs;
- XI. Understand and provide recommendations on technical cooperation projects, investments and external financing for culture;
- XII. Meet and make recommendations to establish standards, channels, mechanisms and strategies to facilitate effectively the marketing of cultural property;
- XIII. Develop liaison mechanisms between the Secretary of State and the decentralized bodies;
- XIV. To consider and approve the annual draft must be submitted to the Executive Branch of the Ministry of Culture;

- XV. Annually review the report to be submitted by the Secretary of State for Culture on revenues and expenditures made by the State during the previous year in culture;
- XVI. Appoint, from among its members, committees and working groups to address specific problems related to their duties or in order to provide you information and criteria that illustrate their decisions;
- XVII. Develop its internal regulations and make changes it deems necessary when considered appropriate;
- XVIII. To enact ordinances and regulations containing provisions within the area of responsibility;
- XIX. Knowing the technical reports of the Secretariat of the Council and decide on them;
- XX. Approve the regulations that are within its jurisdiction;
- XXI. Perform such other duties as provided for by law or assigned by the organic and functional regulation of the Secretariat.

Article 19 .- The members of the National Council of Culture does not receive compensation for the services they permanently provided therein. Only can receive payments for diet.

Article 20 .- The National Cultural Council shall meet regularly at least once every six months and in special session whenever circumstances demand it or when the Secretary of State for Culture convened by its own initiative or that of third members in it. In both cases, the time of the call shall not exceed ten (10) days from the date thereof.

Paragraph .- The Arts Council can meet and make decisions with the presence of more than half of the members present. In this regard, the National Cultural Council, to meet in its first call validly require the presence of an absolute majority of your tuition, but does not attend when the absolute majority of its members, will make a second call for a term not more than ten (10) days, to give opportunity to the presence of quorum. In this second call, more than half of the members present shall be sufficient for the Arts Council may sit validly, provided that it has complied with the formalities and time of the call, as noted in this paragraph.

Artículo 21.- El Consejo podrá invitar a sus sesiones a quien crea conveniente, para intercambiar puntos de vista sobre los temas de su interés. Particularmente, lo hará con el

personal técnico de las instituciones que componen el sector cultural, cuando resulte conveniente ampliar los elementos de juicio para la toma de sus decisiones.

Artículo 22.- Las votaciones del Consejo Nacional de Cultura se decidirán por mayoría simple de sus miembros presentes. En caso de empate, se procederá a una segunda ronda de votaciones, y de producirse un nuevo empate, el voto de su presidente será decisivo. Al momento de las votaciones sólo miembros titulares deberán estar presentes.

Chapter III

Del Secretario de Estado de Cultura

Artículo 23.- El Secretario de Estado de Cultura es el responsable directo de las labores de administración, supervisión y control de la Secretaría de Estado de Cultura, y atiende el cumplimiento de sus funciones, asistido por los Subsecretarios de Estado previstos en la presente ley. Ejerce, además, dentro de ella la autoridad superior con arreglo a la Constitución, las disposiciones legales, las instrucciones presidenciales y las decisiones del Consejo Nacional de Cultura.

Artículo 24.- Corresponde al Secretario de Estado de Cultura poner en ejecución la política cultural y las decisiones que emanen del Consejo Nacional de Cultura.

Artículo 25.- Además de otras atribuciones de orden constitucional y legal, corresponde al Secretario:

- Presidir el Consejo Nacional de Cultura;
- Ejercer, por los medios que sean pertinentes, la supervisión de la ejecución de la política cultural nacional;
- Autorizar las decisiones de la Secretaría y aprobar, revocar, modificar o anular los actos de los directores de los organismos de las oficinas centrales de la Secretaría, de oficio a instancia de parte, por razones de convivencia o legalidad;
- Proponer al Presidente de la República, cuando lo juzgue conveniente, anteproyectos de ley, decretos y reglamentos relativos al sector cultural;

- Proponer al Presidente de la República el nombramiento y la remoción de los funcionarios o empleados bajo el servicio de la Secretaría, cuyo nombramiento no corresponda a otras instancias u organismos.
- Resolver, en forma definitiva, los recursos que por vía jerárquica, se interpusieren contra disposiciones de la Secretaría y declarar agotada la vía administrativa, cuando procediere;
- Decidir, en única instancia, los conflictos de competencia y en última instancia los que se produjeran entre los servidores de su dependencia, todo con arreglo a las normas legales;
- Ratificar, modificar o anular las resoluciones de los funcionarios y empleados a su cargo, cuando surjan discrepancias por causa de las mismas;
- Representar la Secretaría de Estado de Cultura en los actos nacionales e internacionales que lo requieran, personalmente o por medio de los delegados que él designe;
- Supervisar la aplicación de los recursos en los programas y demás actividades de la Secretaría;
- Ejercer la representación judicial y extrajudicial de la Secretaría;
- Coordinate their policies and programs with international agencies that support the Secretariat;
- Tomar las medidas de tipo orgánico que sean pertinentes para el funcionamiento adecuado de la Secretaría de Estado de Cultura, fundamentado en el reglamento orgánico;
- Todas las demás que resulten de esta ley, de las leyes conexas y de los respectivos reglamentos.

Párrafo .- A partir de la promulgación de la presente ley, el Secretario de Estado de Cultura,

formará parte con voz y voto de los siguientes organismos nacionales:

- Consejo Nacional de Desarrollo;
- Consejo Nacional de Educación;
- Consejo Nacional de Educación Superior;
- Consejo Nacional de Turismo;
- Consejo Nacional de Fronteras;
- Consejo Nacional de Salud;
- National Council of Civil Service;
- Agency of the System of Protection of Children and Adolescents;
- National Council on Drug Control.

Article 26 .- In cases of emergency or force majeure, the Secretary of State for Culture, in his capacity as Chairman of the National Culture Council, shall issue any necessary decisions to ensure the smooth progress of the implementation and monitoring of policies cultural as well as to guarantee the rights of third parties and should be accountable to the National Council of Culture in the first meeting this body, after the fact.

Chapter IV

Decentralized bodies

Article 27 .- The decentralization of functions and services of the culture is set as a progressive strategy Dominican cultural system.

Artículo 28.- La Secretaría de Estado de Cultura descentralizará la ejecución de sus funciones, servicios, programas y proyectos definidos en el marco de esta ley y sus reglamentos. En este orden, deberá garantizar una mayor democratización del sistema cultural, la participación y el consenso, una mayor equidad en la prestación de servicios y garantizará una mayor eficiencia y calidad en la cultura.

Artículo 29.- La descentralización se realizará en las estructuras administrativas a nivel nacional y territorial en el ámbito provincial y municipal. Se incorpora en los órganos de gestión, en las instancias correspondientes, una representación directa de las comunidades respectivas.

Artículo 30.- Se crean los Consejos Provinciales y los Consejos Municipales de Desarrollo Cultural como órganos descentralizados de gestión cultural. Tendrán como objetivos básicos los siguientes:

- a. Ensure the implementation of the Cultural Policies issued by the National Council for Culture and the Ministry of Culture in its own area and competition;
- b. In terms of management, should develop plans and territorial projects of cultural and institutional development, have to provide technical support and planning in their territory, and recommend to the Secretary of State for Culture the appointment of qualified staff to perform the functions of cultural management;
- c. Represent the Secretary of State for Culture in Provincial Development Councils (created by Decree No.613-96).

Paragraph .- The specific functions and features of its operation will be defined by the Rules of the Provincial Councils and Municipal Cultural Development, respectively.

Artículo 31.- Las decisiones tomadas por los Consejos Provinciales y los Consejos Municipales de Desarrollo Cultural contrarias a la Constitución de la República serán nulas de pleno derecho, en virtud de lo que dispone el Artículo 46 de la Constitución de la República. Asimismo, las decisiones de esos órganos que sean contrarias a la presente ley u otras disposiciones legales serán anuladas por el Consejo Nacional de Cultura. Esta decisión será inapelable.

Párrafo .- La iniciativa para solicitar la anulación de estas decisiones será presentada por el Presidente del Consejo Nacional de Cultura a solicitud de cualquiera de sus miembros o de los presidentes de los Consejos Provinciales o Municipales en las cuales se origine la decisión.

Artículo 32.- Los Consejos Provinciales y Municipales de Desarrollo Cultural tendrán como organismo coordinador y ejecutivo una gerencia provincial y una gerencia municipal, respectivamente, que dependerán directamente de los órganos de conducción superior de la Secretaría, y que atenderán los asuntos relativos a las funciones fundamentales de gestión cultural, establecidas en la presente ley, y coordinarán su acción con los Consejos de Desarrollo Provincial (creados por el Decreto No.613-96) y las autoridades municipales electas.

Párrafo .- La Secretaría de Estado de Cultura en coordinación con las autoridades municipales y provinciales dará seguimiento específico a cada una de las funciones fundamentales establecidas en la presente ley, y en consulta con dichas instancias, seleccionará el personal técnico más adecuado para su aplicación, a cuenta de las finanzas locales, tomando como criterio central los principios de la racionalización administrativa de un Estado moderno y apoyará financieramente la ejecución de actividades culturales.

Artículo 33.- Son funciones del Consejo Provincial de Desarrollo Cultural, las siguientes:

- a. Establecer los criterios concretos de aplicación de las políticas emanadas del Consejo Nacional de Cultura y de la Secretaría de Estado de Cultura;

- b. Administrar los recursos para el desarrollo cultural e impulsar los aspectos científicos culturales;
- c. coordinar la ejecución de los programas y proyectos culturales, asesorar el desarrollo de los aspectos técnicos y administrativos, coordinar, supervisar el funcionamiento de las regiones culturales y responsabilizarse por la buena marcha de las actividades culturales.

Artículo 34.- Son funciones de los Consejos Municipales de Desarrollo Cultural:

- a. La definición de los planes de desarrollo cultural en su territorio;
- b. Fomentar y supervisar el desarrollo de la cultura en su jurisdicción;
- c. Velar por la infraestructura cultural y coordinar su mantenimiento;
- d. Preparar los presupuestos y trazar la política para administrar los recursos asignados a proyectos específicos de su municipio;
- e. Apoyar al Consejo Provincial de Desarrollo Cultural en su gestión.

TITLE IV

ESTRATEGIAS PARA EL DESARROLLO CULTURAL

Chapter I

Del Fomento y los Estímulos a la Creación, a la Investigación ya las Actividades Artísticas y Culturales y de la Protección del Patrimonio Cultural de la Nación

Artículo 35.- El Estado, a través de la Secretaría de Estado de Cultura, fomentará las artes en todas sus expresiones y las demás manifestaciones simbólicas expresivas, como elemento de diálogo, el intercambio, la participación y como expresión libre y primordial de las capacidades del ser humano.

Artículo 36.- El Estado, a través de la Secretaria de Estado de Cultura, establecerá estímulos especiales y proporcionará la creación, la actividad artística y cultural, la investigación y el fortalecimiento de las expresiones culturales. Para tal efecto establecerá, entre otros programas, becas de estudio, trabajo y de investigación, premios anuales, concursos, festivales, talleres de formación artística, apoyo a personas y grupos dedicados a actividades culturales, ferias, exposiciones, unidades móviles de divulgación cultural y otorgará incentivos y créditos especiales para artistas sobresalientes, así como para los integrantes de las comunidades locales

en el campo de la creación, la ejecución, la experimentación, la formación y la investigación a nivel individual y colectivo en cada una de las expresiones culturales.

Artículo 37.- Con el fin de fortalecer el intercambio cultural, señalánse como criterios generales a los que debe sujetarse el Gobierno para la fijación del régimen aduanero, la supresión de aranceles del ingreso temporal de bienes culturales o la adopción de medidas que faciliten su entrada al país y la exención de impuestos de áduana a bienes de interés cultural que sean adquiridos a cualquier título o recuperados por una entidad pública.

Artículo 38.- La Secretaría de Estado de Cultura organizará y promoverá, sin discriminación de ningún tipo, la difusión y promoción de las expresiones culturales de los ciudadanos dominicanos y dominicanas, la participación en festivales internacionales y otros eventos de carácter cultural. Para ello dará los pasos necesarios para la creación de incentivos fiscales y facilidades administrativas a través del servicio exterior.

Párrafo .- Asimismo, la Secretaria de Estado de Cultura, en coordinación con el organismo regulador del comercio exterior, la Secretaría de Estado de Relaciones Exteriores y la Secretaría de Estado de Turismo promoverá la difusión, promoción y comercialización de las expresiones culturales de los ciudadanos dominicanos y dominicanas residentes en el exterior.

Artículo 39.- El Estado, a través de la Secretaría de Estado de Cultura, estimulará la creación, funcionamiento y mejoramiento de espacios públicos, aptos para la realización de actividades culturales y en general propiciará las infraestructuras que las expresiones culturales requieran.

Párrafo .- Se tendrá en cuenta en los proyectos de infraestructura cultural la eliminación de barreras arquitectónicas que impidan la libre circulación de los discapacitados físicos y el fácil acceso de la infancia y de la tercera edad.

Artículo 40.- El Estado, a través de la Secretaría de Estado de Cultura, y en cooperación con los órganos descentralizados, apoyará el desarrollo de instancias de desarrollo cultural como

entes primordiales de educación artística no formal, así como de difusión, proyección y fomento de las políticas y programas culturales a nivel local, municipal, provincial, regional y nacional. Asimismo dichos centros tendrán que apoyar procesos permanentes de desarrollo cultural, que interactúen entre la comunidad y las entidades estatales para el óptimo desarrollo de la cultura en su conjunto.

Artículo 41.- El Estado consolidará y desarrollará la Red Nacional de Bibliotecas Públicas, así como el Sistema Nacional de Bibliotecas Móviles con el fin de promover la creación, el fomento y el fortalecimiento de las bibliotecas públicas y mixtas y de los servicios complementarios que a través de éstas se prestan.

Párrafo I .- La Red Nacional de Bibliotecas Públicas no incluirá el Sistema Nacional de Bibliotecas Escolares a cargo de la Secretaría de Estado de Educación.

Párrafo II .- La Secretaría de Estado de Cultura, a través de la Dirección General de Bibliotecas, es el organismo encargado de ejecutar la política de las bibliotecas públicas, la lectura y la difusión del libro a nivel nacional y de dirigir la Red Nacional de Bibliotecas Públicas.

Párrafo III .- La Secretaría de Estado de Cultura creará, a los fines de facilitar el acceso al libro de todos los dominicanos y dominicanas, el Fondo Editorial de la Cultura.

Artículo 42.- La Secretaria de Estado de Cultura orientará y apoyará la realización de convenios con instituciones culturales sin fines de lucro que fomenten el arte y la cultura, con el objeto de rescatar, defender y promover el talento nacional, democratizar el acceso de las personas a los bienes, servicios y manifestaciones de la cultura y el arte, con énfasis en el público infantil y juvenil, tercera edad y discapacitados físicos, psíquicos y sensoriales. Así también consolidará las instituciones culturales y contribuirá a profundizar su relación interactuante con la comunidad.

Artículo 43.- El Estado, a través de la Secretaría de Estado de Cultura, fomentará la formación y capacitación técnica y cultural de los gestores y administradores culturales, para garantizar la coordinación administrativa y cultural con carácter especializado. Asimismo, establecerá convenios con universidades y centros culturales para la misma finalidad.

Artículo 44.- El Estado, a través de la Secretaría de Estado de Cultura, fomentará la protección, la conservación, la rehabilitación y la divulgación del patrimonio cultural de la Nación, con el propósito de que éste sirva de testimonio de la identidad cultural nacional, tanto en el presente como para las generaciones futuras. Asimismo impulsará estrategias y mecanismos de apoyo para el desarrollo de las industrias culturales dominicanas.

Párrafo .- La organización y funcionamiento de este sector de industrias culturales se regirá por un reglamento elaborado por el Consejo Nacional de Cultura y promulgado mediante decreto del Poder Ejecutivo, previo a un estudio realizado en consulta con las instituciones, organizaciones y personas interesadas.

Artículo 45.- La Secretaría de Estado de Cultura, a través de la Dirección General de Museos, y en cooperación con los órganos descentralizados, creará la Red Nacional de Museos, y tendrá bajo su responsabilidad la protección, conservación y desarrollo de los museos existentes y la adopción de incentivos para la creación de nuevos museos en todas las áreas del patrimonio cultural de la Nación. Asimismo, estimulará el carácter activo de los museos al servicio de los diversos niveles de educación como entes enriquecedores de la vida y de la identidad cultural nacional, regional y local.

Párrafo .- La Secretaría de Estado de Cultura, mediante el organismo coordinador anteriormente citado, determinará todos los aspectos técnicos, de seguridad y protección de los museos, la restauración y conservación de las colecciones e inventarios, así como de la gestión de los museos públicos.

Artículo 46.- La Secretaria de Estado de Cultura creará programas de estímulo a la investigación y catalogación científica de los bienes muebles de patrimonio cultural existentes en todos los museos del país, a través de convenios con las universidades e institutos dedicados a la investigación histórica, científica y artística nacional e internacional y fomentará el incremento de las colecciones mediante la creación y reglamentación de incentivos a las donaciones, legados y adquisiciones.

Artículo 47.- El Estado, a través de la Secretaria de Estado de Cultura, protegerá el patrimonio cultural de la Nación y tomará todas las disposiciones necesarias para efectuar una evaluación de la situación actual del patrimonio, creará los mecanismos adecuados para evitar su dispersión y establecerá una política de préstamo y de recuperación de los bienes ya prestados.

Párrafo I .- La salida del país de cualquier bien mueble que se considere como integrante de patrimonio cultural de la Nación, requerirá del permiso previo de la Secretaría de Estado de Cultura. En caso de exportación o sustracción ilegal, el bien será decomisado y entregado a la Secretaria de Estado de Cultura.

Párrafo II .- La Secretaría de Estado de Cultura realizará todos los esfuerzos tendientes a repatriar los bienes de interés cultural que hayan sido extraídos ilegalmente del territorio dominicano.

Párrafo III .- La Secretaría de Estado de Cultura evaluará la reglamentación existente en materia de protección de patrimonio y tomará las disposiciones de lugar. Para ello identificará técnicamente y científicamente los sitios en que puede haber bienes arqueológicos o que sean contiguos a áreas arqueológicas, hará las declaratorias respectivas y elaborará un plan especial de protección, en colaboración con las demás autoridades y organismos del nivel nacional.

Artículo 48.- La Secretaría de Estado de Cultura estimulará y apoyará los esfuerzos que desarrollen los medios de comunicación en el ámbito de la cultura, a fin de enriquecer el nivel cultural de los dominicanos.

Artículo 49.- La Secretaria de Estado de Cultura colaborará con la Secretaría de Estado de Relaciones Exteriores, la Secretaría de Turismo y la Secretaria de Estado de Educación, en la promoción y preparación de acuerdos, convenios y tratados internacionales de carácter cultural o de ayuda técnica o financiera, en el contexto de la cooperación internacional vinculados al desarrollo de la cultura, y aportará su concurso para la ejecución de los mismos, así como en todo aquello que tienda a proyectar la cultura dominicana en el ámbito de las relaciones internacionales.

Artículo 50.- La Secretaría de Estado de Cultura formulará e implementará políticas de integración y desarrollo cultural con las comunidades dominicanas fronterizas y dominicanas residentes en el exterior, estimulando la permanencia de los valores nacionales.

Chapter II

De la Profesionalización, Dignificación y Valoración del Personal de la Cultura

Artículo 51.- El Estado Dominicano, a través de la Secretaría de Estado de Cultura y en coordinación con los organismos descentralizados desarrollará una política de formación en recursos humanos orientada a la profesionalización de los agentes y gestores culturales, fomentará y garantizará la formación de agentes y gestores culturales a nivel técnico y superior, para la integración del proceso de gestión cultural a todos los niveles y en las distintas modalidades existentes.

Artículo 52.- La Secretaría de Estado de Cultura, a través de la Dirección General de Formación y Capacitación, tendrá la función de coordinar la oferta de formación, capacitación, actualización y perfeccionamiento de los agentes gestores y animadores socioculturales en el

ámbito nacional, para el cumplimiento de sus finalidades y funciones la Dirección General de Formación y Capacitación coordinará sus actividades con la Secretaría de Estado de Educación, el Consejo Nacional de Educación Superior y con todas las instituciones de educación superior, sean nacionales o extranjeras, estatales o privadas.

Artículo 53.- Es deber del Estado abogar por el establecimiento de las condiciones necesarias para que los trabajos de la cultura alcancen un nivel de vida digno, un estatus y reconocimiento social acorde con su misión profesional y que dispongan de los recursos y medios indispensables para el perfeccionamiento y el ejercicio efectivo de su labor.

Chapter III

De la Participación

Artículo 54.- La participación se concibe como el derecho y el deber que tienen todos los miembros de la comunidad de tomar parte activa en la gestión cultural, de trabajar por su mejoramiento y de integrarse a ella, dentro del campo de atribuciones que les corresponda.

Párrafo .- Para cumplir con tales fines, el Consejo Nacional de Cultura creará los mecanismos de representación política y sectorial más adecuados, con objeto de garantizar la consulta y participación de la comunidad en las instancias de la cultura.

Artículo 55.- La participación en la gestión cultural es expresión de la vida y acción de la comunidad y se manifiesta en el ejercicio de la democracia con responsabilidad y respeto, en cada uno de los estamentos, niveles y modalidades de la cultura, dentro de la esfera de acción que señalan las disposiciones jurídicas vigentes.

Chapter IV

Del Financiamiento de la Cultura

Artículo 56.- El gasto público anual en cultura debe alcanzar, de una manera gradual y creciente, un mínimo de un 1 por ciento (1%) del gasto público total estimado para el año corriente.

Artículo 57.- El gasto público anual en cultura guardará una proporción de hasta un setenta por ciento (70%) para gastos corrientes y al menos un treinta por ciento (30%) para gastos de capital y de investigación. En caso de que los planes de desarrollo cultural del país demanden mayores inversiones de capital, el Estado podrá recurrir al financiamiento o ayuda externa para lo cual se harán las previsiones de lugar.

Artículo 58.- Con el objeto de apoyar las iniciativas de los particulares que tiendan a fomentar la cultura de la población dominicana se establece lo siguiente:

- Los premios que se otorguen en concursos públicos por entidades culturales oficiales o por fundaciones y entidades culturales privadas, estarán exentos del pago del impuesto sobre la renta;
- La Secretaría de Estado de Cultura, en consulta con los organismos pertinentes, hará los estudios necesarios para proponer una política integral de incentivos fiscales, de mecenazgo y de exoneración de impuestos en materia de cultura. Asimismo se investigarán nuevas fuentes de ingresos para el financiamiento de la cultura.

TITLE V

GENERAL PROVISIONS

Chapter I

De los Reglamentos

Artículo 59.- Sin perjuicio de otros que se hagan necesarios en razón de disposiciones legales o motivos de conveniencia, el Poder Ejecutivo validará, mediante decreto, los siguientes reglamentos complementarios de la presente ley en el curso de los seis meses siguientes a su aprobación:

1. Reglamento Orgánico y Funcional de la Secretaría de Estado de Cultura;
2. Reglamento de los Consejos Provinciales y Municipales de Desarrollo Cultural;
3. Reglamento Ordenador del Patrimonio Cultural de la Nación;

4. Reglamento de la Red Nacional de Bibliotecas Públicas;
5. Reglamento de la Editora Nacional;
6. Reglamento de la Red Nacional de Museos.

Párrafo .- Hasta tanto se apruebe el Reglamento Orgánico y Funcional de la Secretaría, ésta funcionará amparada en las atribuciones inherentes al Secretario de Estado de Cultura.

Chapter II

De la Jerarquía de las Normativas Legales

Artículo 60.- Como complemento de las leyes, decretos y reglamentos que emanen de los Poderes Legislativo y Ejecutivo, en materia de cultura, se establecen las siguientes normativas legales para la dirección del Sistema Cultural Dominicano:

1. Ordenanzas del Consejo Nacional de la Cultura;
2. Resoluciones del Secretario de Estado de Cultura en función de Presidente del Consejo Nacional de Cultura;
3. Órdenes departamentales y disposiciones del Secretario de Estado de Cultura;
4. Órdenes departamentales, administrativas, técnicas o institucionales y otras disposiciones de los respectivos Subsecretarios de Cultura;
5. Directrices de los Gerentes Generales de los Consejos Provinciales de Desarrollo Cultural;
6. Disposiciones de los Gerentes Municipales de los Consejos Municipales de Desarrollo Cultural.

Chapter III

Renominaciones y Disposiciones Específicas

Artículo 61.- La Secretaría de Estado de Educación y Cultura se denominará en lo adelante Secretaría de Estado de Educación.

Artículo 62.- El Poder Ejecutivo queda autorizado a hacer los traslados y apropiaciones de las partidas asignadas a los organismos que dependerán de la Secretaria de Estado de Cultura y todas las que se requieran para el funcionamiento de ésta, hasta tanto se apruebe el Presupuesto de Ingresos y Ley de Gastos Públicos del año siguiente a la entrada en vigencia de la presente ley, en el cual deberán figurar las partidas correspondientes a dicha Secretaría.

Párrafo .- El Poder Ejecutivo dará el mandato a la Secretaría Administrativa de la Presidencia ya la Oficina Nacional de Administración de Personal de hacer un balance de la situación actual de las instituciones que integran la Secretaría de Estado de Cultura y efectuar una propuesta integral de estructuración y distribución de recursos de la misma.

Artículo 63.- En el plazo de treinta (30) días, a partir de la entrada en vigencia de la presente ley, se procederá a la disolución y liquidación del Consejo Presidencial de Cultura. El Presidente de la República designará un liquidador, que rendirá cuenta de los bienes y recursos y del personal de dicho Consejo, a fin de que sean integrados plenamente a la Secretaria de Estado de Cultura.

Artículo 64.- Esta ley modifica la Ley No.66-97 del 9 de abril del 1997, para que donde quiera que se lea "Ley General de Educación y Cultura", diga de la siguiente forma: "A partir de la promulgación de la presente Ley General de Educación".

Artículo 65.- La presente ley deroga, expresamente, cualquier disposición que le sea contraria, en todo o en parte, así como los Artículos 100 y 101 de la Ley General de Educación No.66-97 del 9 de abril del 1997, para que digan del siguiente modo:

Artículo 100 .- La Secretaría de Estado de Educación deberá promover el desarrollo de la cultura dominicana, contribuir a divulgarla, ayudar a conservar sus mejores manifestaciones y ponerla al servicio del pueblo, para que la disfrute y, en contacto con ella, se incremente su capacidad creadora.

"Asimismo, deberá, en la medida de su alcance, contribuir al enriquecimiento y conservación de la cultura universal y, particularmente, de la Latinoamericana y la del Caribe".

" Artículo 101.- Son funciones de la Secretaría de Estado de Educación, en este campo:

- Rescatar y mantener vivas las tradiciones nacionales y las diversas manifestaciones de la cultura popular e investigar sus raíces;

- Fomentar el desarrollo de las bellas artes;
- Promover la reflexión sobre el ser dominicano, sobre el sentido que le confiere a la vida, sobre su historia y su realidad social;
- Auspiciar experiencias educativas no convencionales que fomenten en la juventud el desarrollo desde edad temprana de las facultades musicales y artísticas.

Párrafo .- La Sub-Secretaría de Estado que se encarga de los asuntos pedagógicos será la responsable de coordinar las cuestiones culturales contenidas en este artículo.

Artículo 66.- La presente ley modifica y sustituye, en cuanto sea necesario, las siguientes leyes:

- No. 912 del 23 de mayo de 1935, de Organización del Archivo General de la Nación, y la No.1085, del 16 de abril de 1936, que modifica la anterior;
- No. 318 del 14 de junio de 1968, sobre Patrimonio Cultural;
- No. 492 del 27 de octubre de 1969, que declara la Ciudad Colonial de Santo Domingo y Monumentos Nacionales a varios monumentos arquitectónicos y yacimientos arqueológicos;
- No. 318 del 26 de abril de 1972, que crea el Museo del Hombre Dominicano;
- No. 326 del 2 de mayo de 1972, sobre atribuciones de la Comisión para la Consolidación y Ambientación de los Monumentos Históricos de la ciudad de Santo Domingo de Guzmán;
- No. 564 del 27 de septiembre de 1973, sobre Protección y Conservación de los Objetos Etnológicos y Arqueológicos Nacionales;
- No. 263 del 25 de noviembre de 1975, que dota a la Biblioteca Nacional de una estructura orgánica.

Asimismo, la presente ley modifica y sustituye cualquier otra disposición legal que le sea contraria.

DADA en la Sala de Sesiones del Senado, Palacio del Congreso Nacional, en Santo Domingo de Guzmán, Distrito Nacional, capital de la República Dominicana a los seis (6) días del mes de junio del año dos mil; años 157 de la Independencia y 137 de la Restauración. (Fdos.):

Ramón Alburquerque

President

Ginette Bournigal de

Jiménez

Secretary

Angel Dinócrata Pérez Pérez

Secretary

DADA en la Sala de Sesiones de la Cámara de Diputados, Palacio del Congreso Nacional, en Santo Domingo de Guzmán, Distrito Nacional, capital de la República Dominicana, a los trece (13) días del mes de junio del año dos mil; años 157 de la Independencia y 137 de la Restauración.

Rafaela Alburquerque

Chairwoman

Ambrosina Saviñón Cáceres

Secretary

Rafael Angel Franjul

Troncoso

Secretary

LEONEL FERNÁNDEZ

President of the Dominican Republic

En ejercicio de las atribuciones que me confiere el artículo 55 de la Constitución de la República;

PROMULGO la presente ley y mando que sea publicada en la Gaceta Oficial, para su conocimiento y cumplimiento.

Dada en Santo Domingo de Guzmán, Distrito Nacional, Capital de la República Dominicana, a los veintiocho (28) días del mes de junio del año dos mil, años 157 de la Independencia y 137 de la Restauración.

Leonel Fernández

Appendix 13. Monument on Captain Kidd shipwreck site



Appendix 14. Biological Assessment of the Shipwreck Site

