The Monte Cristi "Pipe Wreck"

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Background

The Monte Cristi "Pipe Wreck" faces significant threats from both natural and human origins. The following is an outline of steps taken by the Monte Cristi Shipwreck Project (MCSP) in managing these impacts on this important site.

The "Pipe Wreck," so-called for the large quantity of clay, tobacco smoking pipes carried as cargo, was, until recently, one of the best known, yet least understood submerged cultural resources in the Dominican Republic.

However, this is changing thanks to the generous support of several United States-based non-profit organizations, the University of San Diego (USD), and the dedication of the *Oficina Nacional de Patrimonio Cultural Subacuático in Santo Domingo*. The remains of this 17th-century merchantman are reshaping how we view colonial life in the Americas.

Figure 1: Yvonne Broeder, Monte Cristi Pipe Wreck team conservator, working at the dredge screen

The presence of intrusive artifacts on the site along with anecdotal evidence collected by the MCSP team combine to suggest that the "Pipe Wreck" has been salvaged many times over the past three and a half centuries. This is due, in large part, to its location in shallow, clear water less than a kilometer from the mainland. The geographical fact that the northern coast of Hispaniola is located in the seasonal hurricane corridor poses a threat to all submerged cultural resources in its shallow coastal waters, including the "Pipe Wreck." Today, the expansion of the Monte Cristi suburbs and the development of a regional yacht club have resulted in an increasing number of tourist "day cruises" that pass within meters of — if not directly over — the site.

Archaeological Investigation

When archaeological excavation commenced in 1991, the visible portion of the site comprised scattered ballast stones, pipe stems, ceramics sherds, and concreted iron caldron fragments. Careful study of these artifacts by archaeologists and volunteers of the MCSP led to the formulation of research questions which, to date, have guided seven excavation seasons and several archival studies:

- Could the site be accurately, if not precisely, dated?
- Did the extant hull and cargo suggest a nation of origin?
- Could a specific vessel and journey be implicated?
- Why did the vessel sink in the shallow water of a protected bay?

The investigation of these and other questions eventually led the team to hypothesize that the remains were of an inbound Dutch merchant vessel that wrecked between 1630 and 1665. Testing this idea entailed years of controlled excavation, historical research, and the subsequent conservation, analyses, and interpretation of numerous artifacts. As a result, researchers have revised the original date range, replacing it with a *terminus post quem* (date after which) of 1651 for the vessel's demise and narrowing the temporal window from 35 to 14 years.

The Artifacts

The remnant cargo of the "Pipe Wreck" – not yet fully excavated – is certainly one of the largest and most diverse of any inbound merchantman destined for the Americas, rivaled only by Belle (1686), the "Quicksilver galleons" *Conde de Tolosa and Nuestra Señora de Guadalupe* (1724), and Machault (1760). Furthermore, a study of comparative contemporary sites suggests the vessel was headed for the eastern seaboard of what is presently the United States, specifically the Hudson River Valley, for its typically Dutch cargo compares well with archaeological collections from upstate New York, and specifically the Dutch-American settlement at Fort Orange (modern day Albany). The most conspicuous artifacts on the site are the pipes and pipe

fragments, the combined collection of which represents the largest aggregation of smoking-related artifacts ever recovered from a shipwreck, and possibly from any known archaeological site. The pipes alone number close to ten thousand, yet only two distinct types are represented in this assemblage: those with barrel-shaped bowls – accounting for approximately 93% of the assemblage — and the remainder (7%) with bowls shaped like inverted cones, known as funnel pipes. All are of Dutch manufacture and date to the middle 17th-century, and although the former were preferred by Europeans and European-American colonists, funnel pipes are clear imitations of Native American designs and were intended for both the colonial and tribal trades.

The wreck's ceramic cargo is composed of Rhenish stoneware from Germany and two varieties of glazed earthenware that are likely Dutch in origin, all of which fit well into the aforementioned temporal framework. Fragments of Westerwald pottery, as well as green-glazed and orange-glazed wares were also recovered, but in such small quantities that they were likely ship's wares rather than merchandise.

Metal artifacts include numerous cooking cauldrons, an assortment of tools, lead shot, and 27 silver coins from two South American mints.

Glass shards of many different colors have been found, but most interesting is a cluster of approximately 800 black glass beads. These, in fact, possibly hold a tantalizing clue to the demise of the ship: originally strung in hanks, these once spherical beads are now slumped and fused into each other, a phenomenon that occurs with intense heat lasting for a short period of time. Along with charred wood and melted metal globules, it appears that there may have been an explosion on board, a scenario that archaeologists are studying with considerable interest.

Faunal remains indicate that sailors aboard the ship subsisted on a diet of beef, pork, salted fish, and conch. Occasionally, they competed with vermin for these foodstuffs, as evidenced by animal bones that bear rat incisor marks. Olive pits and other fruit stones appeared regularly in our dredge screens, indicating that the shipboard diet was indeed varied.

The Ship

Timber analysis indicates the vessel was constructed sometime after 1642. The manner in which it was built and the predominant wood types used in its construction suggest England as the locus of production. The extant keel, frames (N=17), outer planks (N=9), inner ceiling planks (N=6), and treenails were all shaped from English oak. Additionally, the hull was coated with tar and cow hair and covered with softwood deals (thin, protective outer boards) of spruce or larch, a measure common throughout the 17th-century to protect a ship's hulls from biological degradation caused by teredo worms and bacteria.

Figure 2: Divers excavate and photograph the extant hull of the "Pipe Wreck"



Figures 3, 4 and 5 (Left to Right): Example of a smoking pipe from the wreck site(left); Rhenish stoneware from the "Pipe Wreck," with the highly stylized Bartmänner, or bearded man face adorning the vessel's neck (middle); and shoulder (right)

History Threatened, Yet Protected

This research has confirmed the value of archaeological investigation in understanding the history and importance of the "Pipe Wreck". Although not all of our research questions have been answered, these critical bits of information reveal a 17th-century merchant vessel that carried a cargo of European-manufactured trading goods, a part of which may have been for Native American tribes of the eastern seaboard of North America. Sailing during a period of volatile competition between the English and Dutch for maritime, mercantile, and military supremacy in both Europe and the Americas, our ship passed along the northern coast of Hispaniola, where historical sources suggest its crew may have engaged in illicit trade with smugglers. Likewise, there is strong evidence to suggest that this vessel entered the bay in search of salt, as today the outskirts of Monte Cristi are home to large, shallow evaporating pans. How far back this practice reaches is lost in the historical and ethnographic records, although Christopher Columbus noted at the close of the 15th-century that the region held great potential for salt production.

To ensure that the archaeological value of the "Pipe Wreck" is protected against inclement weather and less-than-scrupulous tourists, its timbers have been buried beneath a protective covering of tarpaulins, sandbags, and a meter-thick layer of sand and coral rubble. The MCSP team continues to work diligently with local officials, fishing boat operators, and tourist guides to inform them of the importance of the "Pipe Wreck" to the regional history of the island's northern coast, enlisting their cooperation in protecting one of the Dominican Republic's most valuable cultural resources.