

An underwater photograph showing two divers. One diver is in the upper center, holding a rope that leads to a rectangular object. The other diver is in the lower center, facing away from the camera. In the background, the dark, rusted hull of a shipwreck is visible. The water is a deep blue-green color with some bubbles and light filtering through.

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The Bahamas Lost
Ships Project

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The Bahamas Lost Ships Project: Maritime History & Archaeology off the Little Bahama Bank

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The Bahamas has a reputation for being a ship trap. Part of the legend is fueled by the archipelago's location in the 'Bermuda Triangle'. In reality, precious few wrecks have been discovered in its seas and no consensus exists for the volume of maritime losses beneath the waves. In 2023 The Bahamas Lost Ships Project was initiated by Allen Exploration and James Jenney to evaluate the character of shipping lost in the section of the northern Bahamas under archaeological survey by Allen Exploration. Some 176 maritime losses were identified within the historical record, dating between *c.* 1526 and 1976. This report summarizes the data by analyzing the statistics, causes and places of disaster and the effects of storms, hurricanes and wreckers in preserving and impacting sites. The nature of the cargoes is explored, with special emphasis on lumber, cotton and Spanish Cuba's sugar and slave trade.

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1. Introduction

The Bahamas is renowned in the Caribbean and West Indies for a small number of intriguing ships wrecked within its waters. Following the arrival of competing European powers in the Americas, The Bahamas Archipelago took a central role in navigation. Though there were alternative routes for traveling between the eastern and western Atlantic world, the preferred route was to sail through the 150-kilometer-wide Straits of Florida, or New Bahama Channel (Fig. 1), despite the extreme dangers lurking on its flanks. As *Hunt's Merchants' Magazine and Commercial Review* for January 1861 explained:

Look at the charts, and you will perceive that for thousands of miles of area, the soundings laid down are but from two to four fathoms, with here and there sharp coral reefs cropping out. A very eligible ground, you see it is, for either accidental or designed wrecks.

Remember, the Bahamas stretch for hundreds

of miles, directly across one of the world's greatest highways, affording few channels between them, and intercepting almost the whole of the gigantic commerce of the Gulf of Mexico with the rest of the globe.

These waters linked Spanish interests in mines, mints and settlements in Colombia, Mexico, Peru and Florida from the very start of Madrid's overseas influence. An unidentified trader wrecked off the western Little Bahama Bank between 1526 and 1536 transported at least 25 gold alloy and over 180 silver 'tumbaga' ingots melted down in Mexico under the supervision of Bernardino Vasquez, the Crown assayer for the Spanish Conquistador Hernando Cortes.¹ The 'tumbaga' site is one of the earliest lost ships discovered in all the Americas. As European wars and competition over trading interests expanded to the New World, English, French, Dutch and later American shipping thronged the sea lanes. The establishment of permanent colonies, and battles to protect them, saw these waters teem with warships,

traders and slavers built in Europe and the New World.

The Bahamas' geostrategic importance to the Western world is evident in England's determination to control interests in the archipelago and by the appointment in 1697 of a vice-admiralty court at Nassau in New Providence for adjudicating enemy prizes seized by privateers.² Whoever controlled The Bahamas could exert power over navigation and maritime trade. Little wonder New Providence was an arena for constant raids and attempted conquest by various foreign forces, notably French, Spanish and American.



Fig. 1. Moll's chart of 1732 described the "Gulf of Florida or Bahama" as "The best Passage of all the Islands."

Despite The Bahamas' depth of maritime history, no study has proactively sought to quantify how many ships foundered in its waters. The treacherous nature of these waters, studded with low-lying reefs and sandbars, and situated on a Caribbean hurricane path, is assumed to have resulted in large numbers of ship losses, perhaps as many

as 5,000.³ "Owing to the immense number of sandbanks, rocks, and breakers everywhere dispersed over these seas, the navigation is extremely unsafe, and thousands of vessels have been wrecked here," *The Geography, History, and Statistics*,

Fig. 2. Map of 176 wrecks identified by The Bahamas Lost Ships Project lost between c. 1526 and 1976.



of America, and the West Indies to the Year 1822 explained.⁴ Precisely how many lost ships, however, is little more than an educated guessing game.

To assess the scale and nature of shipping lost in The Bahamas, Allen Exploration collaborated with maritime historian James Jenney in 2023 to quantify historical evidence for shipwreck losses

within the expedition's license area. This marine zone is focused on the western side of the Little Bahama Bank between Matanilla Reef to the north and Freeport on Grand Bahama Island to the south. An extension includes Gorda Key off southwest Abaco Island. Jenney's analysis scoured more than 68 early national and provincial broadsheets and newspapers, as well as synthesized information, including *Lloyd's List* (starting in 1734) and the *Royal Commission on Unseaworthy Ships* (1874). Data sheets produced by Jenney contain 21 entries specifying all critical information, from a ship's name, date of loss and disaster type to location, tonnage, flag and cargo, followed by an abstract of the loss event.

The Bahamas Lost Ships Project initiated with Allen Exploration recorded 176 wrecks within the survey zone (Fig. 2), as well as 35 further possible events. This report summarizes these maritime historical losses. To date, 19 shipwrecks have been identified underwater. Thus, a maximum 15% of the potential shipwrecked heritage has been detected archaeologically so far.

In addition to informing Allen Exploration about the character of the maritime activity within the region under archaeological investigation, how it changed over time, and potentially guiding survey strategies, the project has wider significance. Underwater cultural heritage can only be managed once regional maps exist and distribution



Fig. 3. Reconstruction of the Spanish galleon the *Maravillas*, lost off the western Little Bahama Bank in January 1656. Photo: © Allen Exploration.

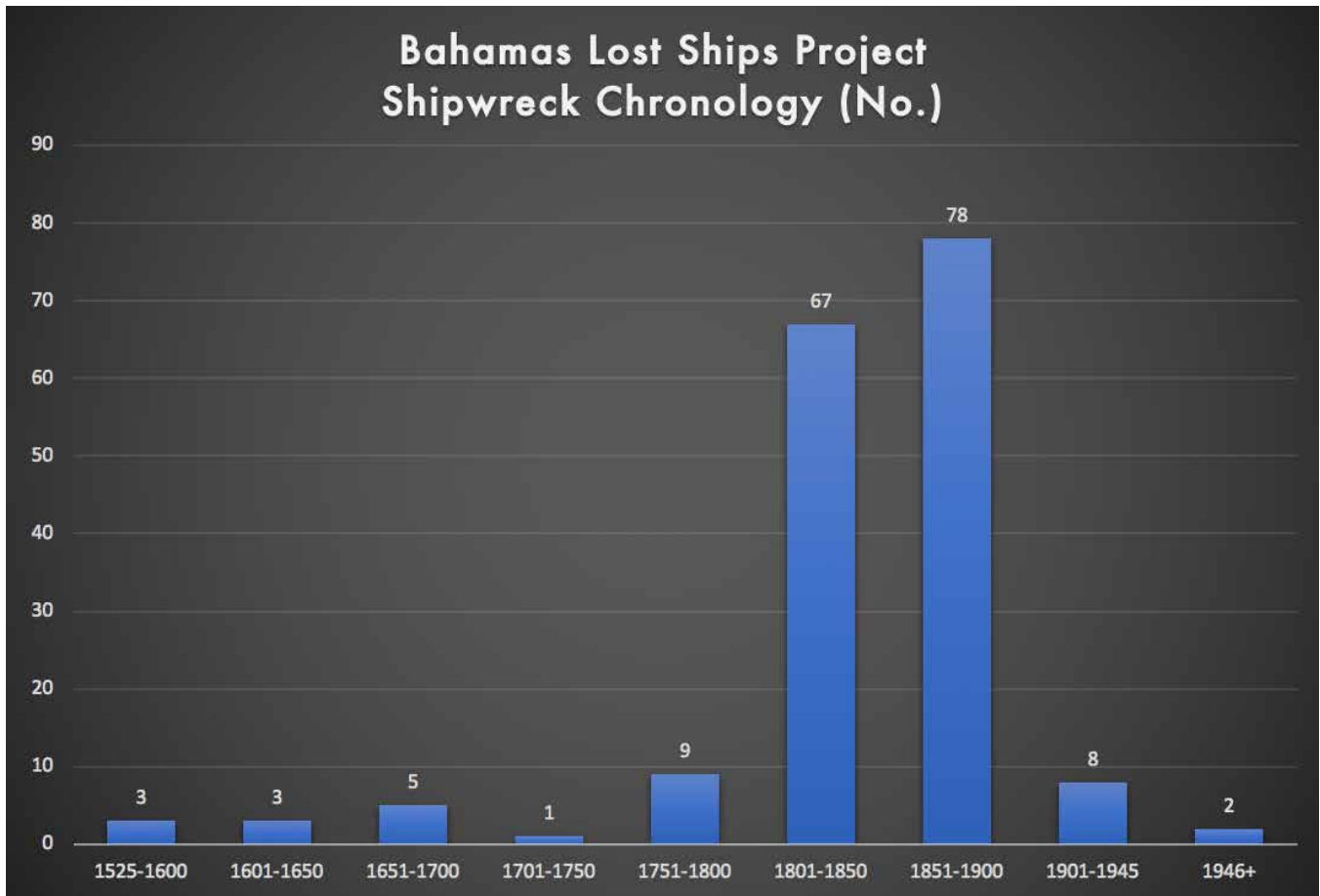
patterns and site characterizations are assessed. Developing indexes from historical accounts is a recognized major step in this process.⁵ Compiled data differ between nations, from the comprehensive to the patchy. Some 37,000 wrecks have been compiled for England,⁶ and 8,000 for Australia,⁷ for instance. Just 5,800 of an estimated 20,000

have been profiled for France⁸ and 10,000 for the USA.⁹ The current project is the first initiated for The Bahamas and any Caribbean country.

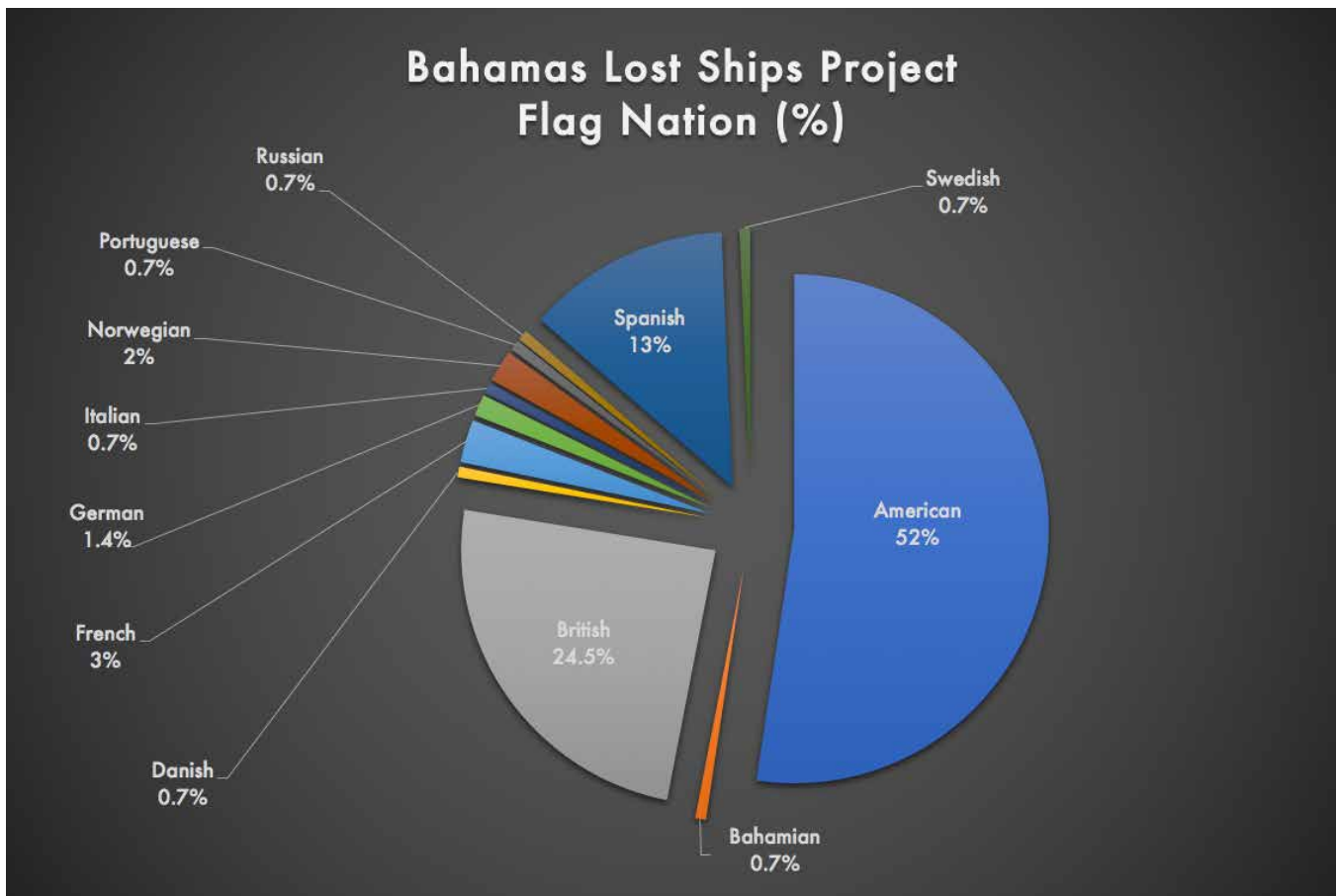
2. Statistical Analysis

The 176 ships lost in the survey zone date between *c.* 1526 and 1976 (Fig. 4). Three date to the 16th century, eight to the 17th century, ten to the 18th century and the majority, 145 or 82%, to the 19th century. At least 114 (85%) are merchant vessels.¹⁰ Eighteen of the losses occurred off the Abaco Islands (10%), 30 off Grand Bahama Island (17%) and 128 off the Little Bahama Bank (73%). The highest densities of wrecks are clustered off: Gorda Key in the Abacos at 14 losses; there are 12 off the West End of Grand Bahama Island; 24 off Memory Rock; another 24 off Sandy Cay on the western edge of the Little Bahama Bank; and a high of 28 losses on the Matanilla Reef in the northwestern corner of the study zone. In the absence of modern navigational mapping tools, and the often second or third-hand nature of reports of a lost ship, the locations (such as number of miles from a landmark and orientation) are often generalized.

The three nationalities that witnessed the greatest losses were, unsurprisingly, America, Britain and Spain at 77, 36 and 19 wrecks respectively (Fig. 5). Discounting 29 ships of unknown flag, America accounts for 52% of the wrecked



Figs. 4-5. The date range (above) and nationality (below) of the vessels documented by The Bahamas Lost Ships Project.



vessels, Britain 24% and Spain 13%. A summary of losses for the winter of 1860 and 1861 in The Bahamas independently assessed the US - flagged casualties at seven-eighths of the total and amounting to \$2 million of losses a year.¹¹

Overall, the lost ships originated in, and were heading to, far-flung ports. The majority of departures began the last leg of their voyages in the USA (74 ships) and Cuba (41 ships). The vessels set sail from one of 13 countries. Their destinations lay in 25 nations or regions that were far more distant, ranging from Antigua to Belgium, Brazil, Denmark, England, France, Germany, Holland, Italy, Spain and West Africa. The top five most common destinations were the United States (52 ships and 38% of the sample),¹² Cuba (17 or 12.5%), England (16 or 12%), Spain (10 or 7%) and The Bahamas (9 or 6.5%).

Ship types and cargo characteristics are discussed in sections 6-7 below.

3. Causes & Locations of Disasters

Ships sink for a multitude of reasons. In the present case specific to the northern Bahamas, causes of disasters ranged from hostile attacks to being becalmed, cargo fires, fog, leaks, pirates and, in one instance, striking a partially submerged old wreck. The most common reasons for ship disasters are documented as navigational error (29 cases or 26%), storms (29 or 26%), hurricanes (20 or 18%) and currents (9 or 8%).¹³



Fig. 6. Samuel Thornton's *New Chart of the Bahama Islands and the Windward Passage* (1702-1707) showing the position of the Old Bahama Channel to the south & Florida Strait (Gulf) to the west. Photo: Lionel Pincus & Princess Firyal Map Division, The New York Public Library (Map Div. 02-295).

The earliest detailed historical account of a ship lost to a combination of navigational error, storms and currents is the fate of the *Nuestra Señora de las Maravillas* (Fig. 3). According to the Catholic priest Diego Portichuelo de Rivadeneira, keeper of the metropolitan church in Lima, who was traveling on the homeward-bound Spanish vessel in

1656, the ship was expecting to enter the Old Bahama Channel at 10pm on January 4. When the sea depth proved to be alarmingly shallow, the pilot realized that the Old Bahama Channel, running east-west between northern Cuba and the southern Grand Bahama Bank (Fig. 6), had been overshoot. The ship was already traveling northwards up the eastern side of the Straits of Florida. A cannon was fired to warn the rest of the fleet of pending danger.

Once it was aware of its navigational error, the *Maravillas* tried to tack around “but the currents and the wind stopped her.” The fleet flagship, by contrast, succeeded in turning around. In the dark of the night, though, “the retreating Capitana smashed into the side of the larger ship [the *Maravillas*] and the bow... broke through our planks from the top of the waterline to the holds, making splinters out of all of them...”

In less than 30 minutes, the *Maravillas* violently struck a low-lying coral reef and slid off into around 50 feet of water (Fig. 7). No sooner had the ship settled to the bottom than “a strong wind began to blow, creating enormous waves and

the ship began to break into pieces.” Most of the 650 people on board grabbed hold of floating wreckage and drifted away, “never to be seen again.” Of 150 others who clung to floating parts of the ship, many died from exposure during the night or were eaten by sharks. By sunrise, only 45 men had survived.¹⁴

At the time of its demise, the *Maravillas* was trying to navigate the established route for Spanish fleets sailing between Andalusia and the Americas, as annotated on a map drafted by Herman Moll in 1732 that called the Strait of Florida route “the best Passage of all the Islands,” where “The Gallions and Flota usually Ioyning at the Havana, the whole Armada Sails for Spain thro this Gulf”¹⁵ (Fig. 1).

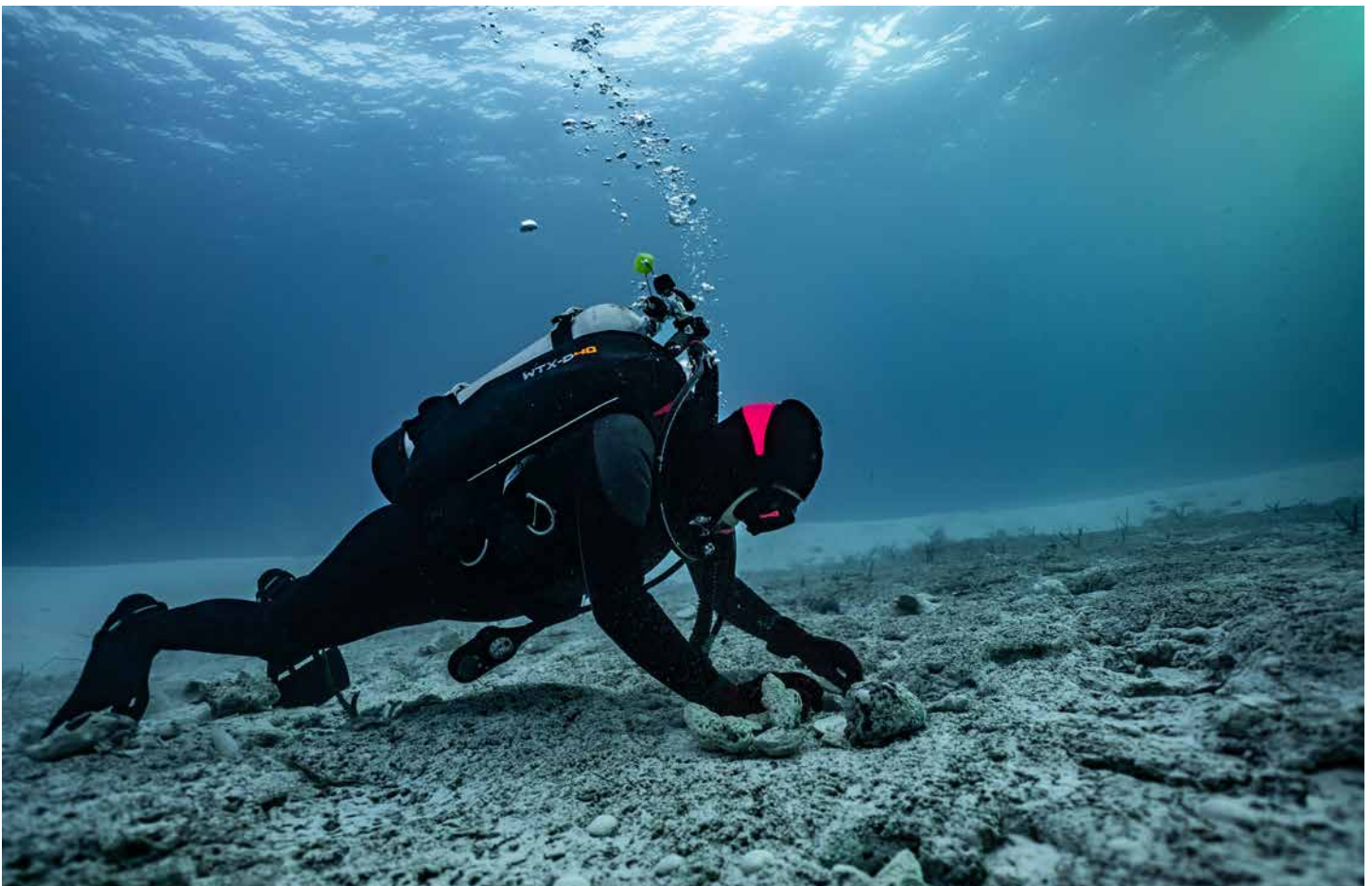
Equally, for Americas’ traffic bound from New Providence to east Florida, Georgia and South Carolina, the English Royal Navy advised in 1817 that:

If you are bound to St. Augustin, Savannah, or Charleston, your best and shortest way is through the Gulph; your course from Nassau

bar, to clear the Berry islands, is N.N.W. $\frac{1}{2}$ W. distance 18 leagues. From thence your course is W.N.W. 32 leagues, which will bring you off the west end of Grand Bahama, where on shore there is excellent water, and lies in lat. $26^{\circ} 45' N.$ and long. $79^{\circ} 25' W.$ From hence you should haul up N.W. b. W. and continue that course until you pass Wood, Water, and Sandy, Keys, having on the bank, about 4 leagues from the Bahamas. If you wish to see the Memory Rock, you must hail up N.N.W. but the safest way, especially in the night, is to continue a N.W. b. W. course, about the distance of 6 leagues farther, which carries you well in the Gulph, and clear of all danger.

Navigational error leading to the loss of a vessel can be caused by a number of factors. Among the most common causes include: sailing at night, mishandling equipment when maneuvering, following an errant or incomplete chart, an unlit aid to navigation (lighthouse) or a lack of experience

Fig. 7. Gigi Allen examines a barren shallow reef off the western Little Bahama Bank. Photo: © Allen Exploration.



or skill in vessel management.

Sailing at night in waters where the maneuvering room is limited, such as in the Florida Strait, often proved to be a poor decision. Even if a mariner was familiar with the area, the lack of visible landmarks could be disastrous. And with the addition of unpredictable currents, the loss of vessels was

often the end result. The *Santa Clara*, sunk in the vicinity of Memory Rock at 4am on the morning of October 6, 1564, while homeward bound from Cartagena to Spain, is representative of this lack of judgment.¹⁶

Poor use of equipment, particularly involving the handling of sails in the performance of routine maneuvers, was another mistake that could be fatal. The 1,300-ton barque *Timour* suffered a total loss due to this type of error when, on November 21, 1882, it missed stays (failed to go about) in the process of tacking when too close to the western edge of the Little Bahama Bank. The failed maneuver so close to shore resulted in the ship running on coral heads about 18 miles north of Memory Rock.

An errant or incomplete chart could also lead to a voyage's premature end. On September 17, 1809, the ship *Argo* came to a sudden halt when it struck an unmapped rock or reef about 3 leagues east of Little Isaac Rocks, south of Grand Bahama Island, and was lost.¹⁷ Ten years



Fig. 8. A silver bar from the wreck of the *Maravillas* found off the western Little Bahama Bank. Photo: © Allen Exploration.

later, the brig *Alert* foundered on the same rock on February 5, 1817.¹⁸ The hazard was apparently still not on the chart. Shortly after the loss of the *Alert*, the ship *Rosa* unexpectedly ran on either the same reef or a similar one in October of 1817, said to lie 13 nautical miles east of Little Isaac.¹⁹

The sinking of the *Maravillas* was a monumental navigational error because the pilot failed to realize he had overshot the entire Old Bahama Channel and had sped into the Straits of Florida. All shipping working the waters of The Bahamas similarly had serious reason to be extra cautious. The area was a web of uncharted shifting sandbanks and sharp, shallow reefs. Even into the 1950s, parts of the northern Bahamas remained poorly mapped, such as the southern side of Grand Bahama Island, “where little is known about this section of coast,” and the 30-foot-high Gorda Cay, whose bank was yet to be well surveyed.²⁰

Memory Rock, a dark, barren landmark rising 14 feet high, was recognized early on as a particularly dangerous

Fig. 9. The Mimbres (Memory Rock) seen on Cornelius Danckerts' map of 1696, *Insulae Americanae, Nemp: Cuba, Hispaniola, Jamaica...* (1696).



particularly dangerous navigational hazard on the western edge of the Little Bahama Bank. Twenty-four maritime casualties are listed in The Bahamas Lost Ships Project inventory as having foundered in its immediate vicinity (Fig. 2). Because of its notoriety, already in May 1595 the Governor

of Cuba, Juan Maldonado Barnuevo, sent a team of surveyors from Havana to compile detailed information about the coasts, islands and shoals that bordered the Bahama Channel. The Spanish generally called the sandbanks along the west-northwestern edge of the Little Bahama Bank

Mimeres and Los Mimbres (Memory Rock),²¹ perhaps a nod to the danger confronted by any pilot who failed to memorize and respect the landmark's location. The surveyors recorded how:²²

From these rocks [Cay Sal] we steered to the east some twenty-four leagues across the north/south channel, until entering in the sandbank of the Mimeres; from there we steered to the north running the long banks until arriving at the Keys of the Mimeres. They run, these keys, from north to south; they have the length of one league. Between them, a large mouth is there that has three brazas of water (15 feet). Of the eastern part, right next to there, is six or seven brazas of water (33- 38.5 feet)—in the bank of the eastern part there is two or three brazas (11-16.5 feet); all clear sand. [We] took the height in these keys ashore the tenth of June, eighty-eight degrees of the astrolabe for the greatest height (25° 10' N)⁸. Coming out of this Mimere, I steered to the north-northeast [and] ran the

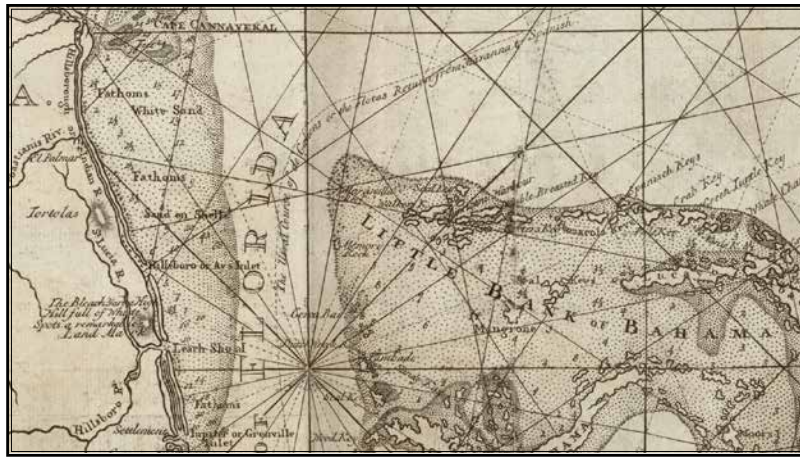


Fig. 10. Gerard van Keulen's map of 1784, *A New and Correct Chart of the Coast of East Florida, and Part of West Florida Cannel of Bahama*.

long banks. We were to come upon with three fariñones [blood sausages?] of the Mimeres, which are one like the other; they run for three Leagues north-northwest/ South-southeast.

The rock was already a fixture on navigational maps in Jan

Jansson's work of 1638²³ and around 1650 the Mimbres was the only offshore landmark illustrated on a map of The Bahamas drafted by the cartographer Johannes Vingboons to help the Dutch West India Company navigate these waters as safely as possible. Henceforth, Memory Rock was almost always depicted: on Dutchman J. van Loon's map of 1661,²⁴ Cornelius Danckerts' work of 1696 (Fig. 9),²⁵ a chart drafted by leading English map seller Emanuel Bowen in 1772,²⁶ Dutchman Gerard van Keulen in 1784 (Fig. 10)²⁷ and Louis Delarochette in 1795.²⁸ The hydrographer Edmund Blunt labelled the area of the western Little Bahamas Bank between Western Reef and Memory Rock "Very dangerous to approach" in 1834 (Fig. 11).²⁹

Three-quarters of the Mimbres rock lies within the western edge of the Little Bahama Bank some 16 and 3/4 miles north-northwest of Settlement Point. Dangers flanking the rock into the 1950s included a coral



Fig. 11 (left). Edmund Blunt's *The Bahama Banks and Gulf of Florida* describes the area of the western Little Bahamas Bank between Western Reef and Memory Rock in 1833 as "Very dangerous to approach."

patch 3 miles north-north-west of the edge of Memory Rock, two dangerous sunken wrecks 6 miles to the north-north-west, and a third dangerous sunken wreck 3 miles south of the rock.³⁰

Another spike in ship losses identified by The Bahamas Lost Ships Project is the Matanilla Reef, where 28 maritime casualties are historically attested (Fig. 2). A mid-18th century map warned of a “Dangerous Reef Called Maranillas by the Spanjards” and that in the area between Maranillas and Memory Rock



Fig. 12. Maranilla Reef (modern Matanilla) is seen as “very Dangerous” on a map drafted by Thomas Jefferys in 1794.

(Fig. 12).³² In another chart of 1794, Charles Roberts of the Royal Navy advised in relation to the northeast Matanilla Reef that “This side which has not been explored as the others is said by the Wreckers to be the most dangerous of all

Fig. 13. Charles Roberts described the northeast Matanilla Reef in 1794 as “the most dangerous of all on account of the Currents &c” in his *Chart of the Gulf of Florida or New Bahama Channel*.



on account of the Currents &c” (Fig. 13).³³

Edmund Blunt marked “High Breakers” across the Matanilla Reef (Fig. 11).³⁴ James Imray’s chart of 1868 warned that waves “Breaks in moderate weather” even.³⁵

Into the 1950s, Matanilla Reef was similarly “very dangerous and steep-to with the 100-fathom curve less than about 1 mile off.” Between Angel Fish Point and this position on the northeastern side of the Little Bahama Bank, a line of “Dangerous reefs and rocks, on the steep-to edge of the bank, lie up to about 4 miles seaward of these cays.”³⁶

The Matanilla Shoal, 22 miles west of the Matanilla Reef (Fig. 2), was equally very dangerous. Because the rocky seabed was covered with dark weed, to passing shipping “the water does not appear discolored over the dangers.” In other words, sea grass concealed low-lying hazards. The flat bottom offered no hold for anchoring.³⁷

Based on etymology, misread words and mixed meanings when landmarks were labeled in different languages, Matanilla may very well be a corruption of *Maravillas*, the Spanish vessel lost off the western Little Bahama Bank in 1656. This hypothesis is based on early maps referring to the landmark as Maranilla Reef, such as Gerard van Keulen in 1784,³⁸ as well as early 19th-century official Royal Navy chronicles (listed as at Latitude 27 50 and Longitude 79 5).³⁹ The mislabeling of the maps of different nations and languages could easily explain the single letter discrepancy.

Fourteen losses are listed in the current historical inventory off Gorda Cay, northwest of Sandy Point in the southern Abaco Islands (Figs. 2, 14). The 30-foot-high bank had not even been well surveyed by the 1950s.⁴⁰ A map by Thomas Jeffreys called the landmark Key Gordo in 1771,⁴¹ while Keulen named it Gurchois in 1784.⁴² Key Gorda offered welcome fresh water, but the area of



Fig. 14. Gorda Cay (today's Castaway Cay), a shipwreck trap in the northern Bahamas. Photo: Warfieldian.

reefs running northwest from the cay to Moose Island (now Moore's Island) was marked on Edmund Blunt's map of 1834 as a “Dangerous Rocky Shore.”⁴³

Twelve losses have been tabulated off the west end of Grand Bahama Island (Fig. 2). Off the eastern side of the island, Turtle Reef

was described in 1868 as a “Dangerous Bight with S.W. Winds.”⁴⁴ Into modern times, caution was advised for shipping approaching the southwestern and southern side of Grand Bahama, “where little is known about this section of coast” inshore of the 100 fathoms’ point reached 1-3 miles from land. Strong currents were cautioned around Pinder Point and Rocky Point. West End settlement had to be navigated with great care because “The only approach channel for craft of more than 4-foot draft is northward of Indian Cay. This channel must be navigated by eye and with caution as the rocky bottom and many bars make it dangerous.”⁴⁵

The *Maravillas* was not the only ship known by early wreckers and cartographers around the Little Bahama Bank. On its western flank, Charles Roberts included a “Dutch Wreck” south of the Genoa Bar on his map of 1794 (Fig. 13).⁴⁶ James Imray’s chart of 1868 mapped a “wreck” between Memory Rock and White Sand Ridge.⁴⁷ William Hack’s ‘Description of the Bahama Banck’ in *Containeing Sundry Draughts Describeing the Sea Coast from Acapulco Towards California Taken from the Originall Spanish Manuscript* (1687) lists three wrecks on the east side of the Little Bahama Bank, from north to south ‘The Plate wreck’, ‘The Geneves wreck,’ and ‘The Copper wreck’ (Fig. 15).⁴⁸ The map was partly copied from Captain Salmon’s observations made during William Phips’ salvage expedition to The Bahamas in 1685, and possibly originally from a Spanish “book full of Sea-Charts... a Manuscript of Prodigious Value”

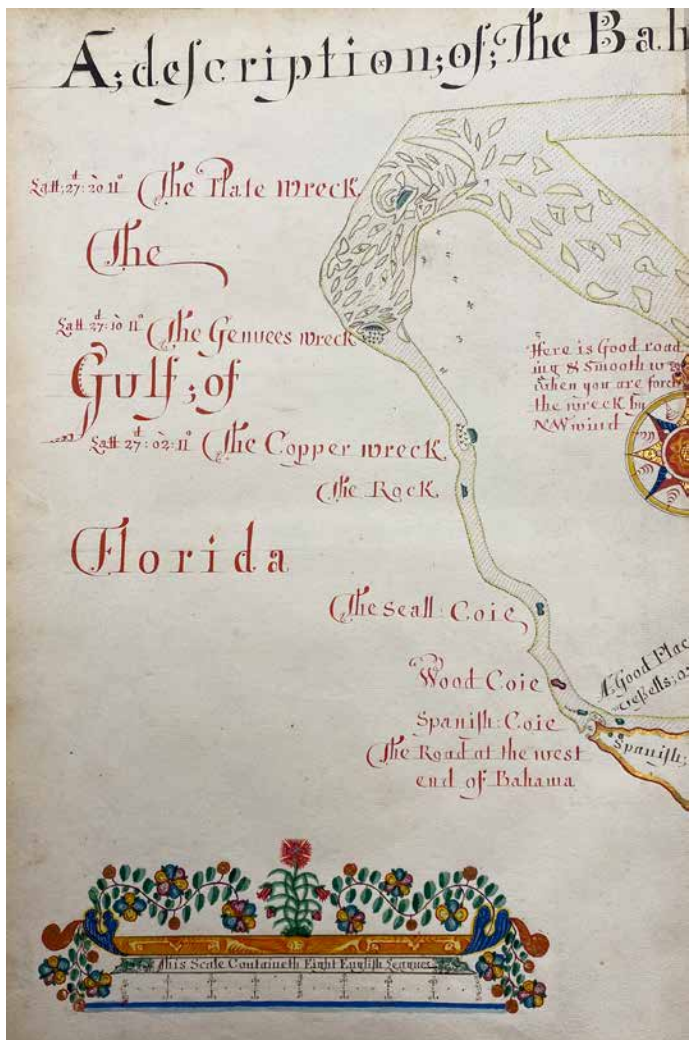


Fig. 15. Detail of William Hack's 1687 'Description of the Bahama Banck', showing three wrecks off the eastern Little Bahama Bank, 'The Plate', Genvees,' and 'Copper' wrecks.

seized by the British buccaneer Captain Bartholomew Sharp from the Spanish ship *El Santo Rosario* off Ecuador in July 1681.⁴⁹

4. Storms & Hurricanes

Hurricanes would be a logical explanation for the loss of mass shipping in The Bahamas due to its location along a major trackway of storms originating in the Caribbean and Atlantic basins, often traveling north-westwards (Fig. 16). Storms and hurricanes played a significant role in causes of ship losses, accounting for 26% and 18% of losses respectively within The Bahamas Lost Ships Project inventory.

Storms and hurricanes must have played a decisive role in dictating how quickly ships broke up and settled as wrecks on the seabed. In violent environments, an entire ship can be broken down to the

keel in a matter of days and weeks. In more benign circumstances, ships can break up more slowly and fortuitously for archaeology. If remains are engulfed by the notorious deep sands off the western Little Bahamas Bank, extensive remains – organic, ceramic and metallic – can be extraordinarily well preserved in anaerobic conditions.

The driver in the lottery of wreck preservation or destruction is the power, direction and duration of storms and how they interact with the marine environment. The Bahamas has witnessed extreme storms for centuries. The earliest recorded instance over the Little Bahamas Bank, based on sedimentological analysis, dates to AD 1100 ± 110.⁵⁰ Since 1850, ten tropical storms, 12 hurricanes and nine intense hurricanes have passed within a 50-kilometer radius of Thatchpoint Bluehole off the western Great Abaco island.⁵¹ And since 1851, 45 total storms have passed within 100 kilometers of the western Great Bahama Bank.⁵² The Atlantic hurricane seasons of 2017 to 2019, in the modern era, collectively caused \$330 billion in damages, accompanied by a death toll of over 3,000 people.⁵³ The current study has registered 142 hurricanes and storms in The Bahamas since 1500.

The western Little Bahama Bank lies within the Trade-wind Belt, and in the winter is exposed to easterly winds blowing at an average velocity of 10-15 miles per hour. Northers, with wind velocities of 30-40 miles per hour, occasionally blow in from the northwest and northeast from November through to April. Between May and October, breezes from the south predominate, but occasional squalls appear from the northeast and east. Unlithified sediments started to form when the sea rose almost to its present level after the Wisconsin glaciation, around 5,000 years ago. The region's sediments are composed of mixed skeletal sand, primarily debris and, in some areas, high proportions of peloids, grapestone and oolite.⁵⁴ Varied zones of shallow to deep sediments define the western Little Bahamas Bank from small dunes with straight to sinuous crests with amplitudes of 0.2-1.0 meters and set 1-3 meters apart to small 3-D dunes with heights of decimeters with crest bifurcations every meter (Fig. 17).⁵⁵

Daily currents and trade winds in the study

zone generally do not cause significant sediment movement, but storms and hurricanes do. Along the northern, open margin of St. Croix, for example, in 1989 Hurricane Hugo stripped two million kilograms of sand from the Salt River Submarine Canyon, the equivalent of a century of fair-weather conditions.⁵⁶ Fine-grained, shallow-water carbonate sediments can be transported at least 120 kilometers from open-ocean bank margins.⁵⁷ In the vicinity of Allen Exploration's search area, vigorous off-bank transport of carbonate sands occurs along the west-facing, leeward, open margins of the Little Bahama Bank, causing shallow-to-deep sediment transport pathways.⁵⁸ Hurricanes strike the northern Bahamas on average every seven years.⁵⁹ Such extreme activity has obvious impacts on both ship and wreck devastation.

For instance, when the Spanish frigate the *San Juan Evangelista* was caught in a violent southern storm 24 miles southwest of Walker's Cay on November 4, 1714, it lost its keel, all the masts and bowsprit and was driven onto a reef on the Little Bahama Bank in a deplorable condition.⁶⁰ The keel's dislocation effectively would have dislodged the hull and forced the entire 400-ton vessel to rapidly break apart, leaving few coherent remains for future archaeologists to discover.

The same low-lying sharp reefs were perfect hazards to snap rudders, as happened in January 1656 with the trader the *Jesus Maria* in the same homeward-bound Tierra Firme fleet as the *Maravillas*.⁶¹ Far later, in December 1791, the Spanish frigate the *Diana*, bound from Havana home to Coruna in Spain, struck a reef "and in a few minutes was forced over the reef into three fathoms of water with the similar loss of her rudder."⁶²

Some ships attempted to save life and limb



Fig. 16. The 74-gun HMS *Theseus* badly damaged in a hurricane in the West Indies in September 1804. Engraving by Edward Burt, 1809.

during storms by jettisoning their cargo, as with a British trader in March 1818, 5 miles west of Memory Rock.⁶³ The dislocation of major sections of a hull during a storm is recognizable within the historical record. The sterncastle of the *Maravillas* broke away on January 4, 1656 after three cabins in the stern collapsed into a tower of wood.⁶⁴

The quarter-deck of the *Erie* broke free of the hull after the brig hit the western edge of Matanilla Reef on January 2, 1851.⁶⁵

Fig. 17. Deep sands off the western Little Bahama Bank. Photo: © Allen Exploration.



It was not uncommon in the hostile environment of the northern Bahamas for craft like the *Baltimore* of Philadelphia to start leaking as soon as it struck a low-lying obstacle, in this case the Matanilla Reef on January 1, 1827, and to sink inside a few minutes.⁶⁶ The American trader the *Toronto*, with 13 feet of water in the hold after a night of being pounded on a reef at the Dutch Bars in January 1851, a few miles north of Memory Rock, broke up in under a day.⁶⁷ Even with the benefit of later shipbuilding techniques, the three-masted British schooner the *Sirocco* almost immediately began to go to pieces after hitting the Matanilla Reef during a hurricane on October 1, 1908.⁶⁸

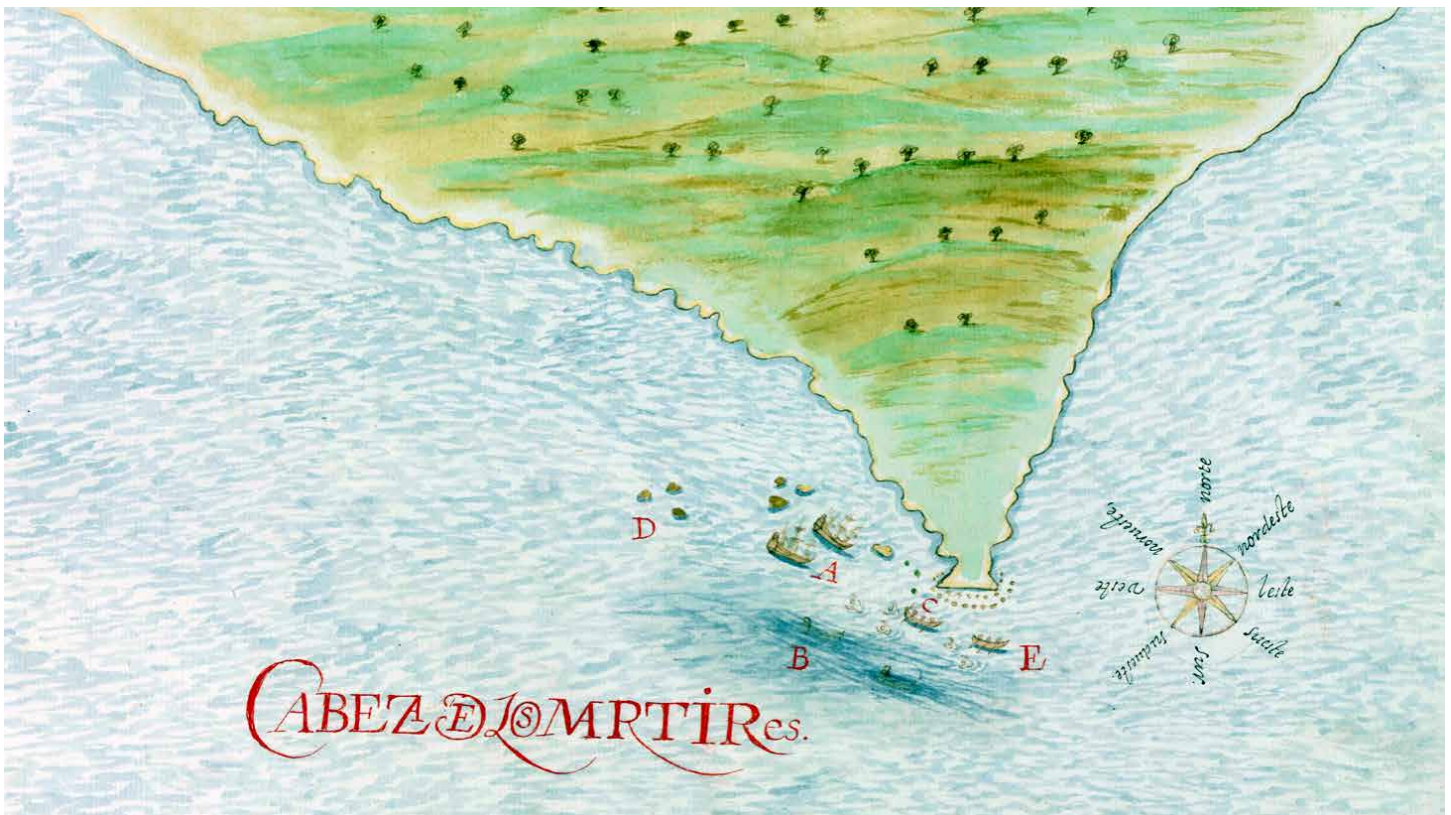
The extreme damage hurricanes and storms inflicted on wooden ships, while sailing and becoming stranded, often followed by being holed by reefs and wrecked, and how these extreme environmental factors affect wrecks, has not been empirically modeled to date. For optimum archaeological preservation, wreckage needs to be infiltrated, covered and sealed by shifting sands before structural and cultural remains are extensively scattered and leave behind chaotic debris fields.

5. Wreckers & Wrecking

So far, all shipwrecks detected in the northern Bahamas are shallow-water sites. A significant proportion of maritime losses undoubtedly occurred in depths where throwing out an anchor was not feasible. Since The Bahamas' seas are defined by 700 islands, 30 inhabited, and 2,400 cays, as well as innumerable low-lying reefs and sandbanks, striking shallows unsurprisingly accounts for the majority of known losses. No less than 145 of the 176 casualties (82%) listed by The Bahamas Lost Ships Project are described as starting out as stranded vessels. As discussed above, this form of loss has clear implications for how ships deconstruct into wrecks, stabilize or destabilize underwater and what preservation may be expected.

First and foremost, shallow locations made salvaging cargos and shipboard fittings relatively uncomplicated (Fig. 18). So much so that wrecking was often the leading profession in The Bahamas' economy. The *Maravillas* was first salvaged in June 1656 by Captain Juan de Somovilla, using Native American and Black divers working off the *Chinchorro*.⁶⁹ In 1657, three Spanish ships, *El Dragon*, *San Antonio*

Fig. 18. Salvors working the wrecked 1622 Spanish fleet off the Cabez de los Martires, the Florida Keys. From Nicolás de Cardona's *Descripciones Geográficas e Hydrográficas de Muchas Tierras y Mares del Norte y Sur en las Indias*, 1632.



and the *Madama de Brasil*, converged on the wreck and were all lost in a storm. In total, ten Spanish expeditions tried to recover the *Maravillas*' treasure up to 1679. The July 1678 salvage team was offered 25% of any recoveries for their effort.⁷⁰ In July 1687, the crew of the 80-ton English naval ship the *Elizabeth*, commanded by Thomas Baker, tried their luck too and was to be paid one-fifth of any recoveries from the wrecked *Maravillas*.⁷¹

The most detailed historical evidence for ships and teams based in The Bahamas, and employed in general wrecking, dates between the 1840s and 1890s. William Phips's search for Spanish treasure ships lost in the West Indies is a rare exception, and led him to hunt on the *Rose of Argier*, with royal backing from King Charles II, for a ship lost around New Providence in The Bahamas and one lost on the Bahama Banks (Fig. 15).⁷² English colonists viewed enemy ships, especially Spanish, as fair prey, the abandoned "Possession of the Devil", for which reason they were legitimate arenas of "frequent and abundant harvest."⁷³

A detailed account of Bahamian wreckers active before the American War of 1775 explained how:⁷⁴

These persons, with their slaves, are constantly employed in the business of wrecking, that is of rescuing shipwrecked vessels, with their crews and cargoes from the waves. They sail in small flat-bottomed sloops, just fitted for the seas they navigate. They are excellent sailors, and swimmers; are familiar with all the keys, shoals; and breakers; and with alacrity and courage, encounter any danger and hardship. They are licensed by the governor, and receive salvage on all property rescued from the waves. By day, they are always cruising; at night they usually put into the nearest harbor. The number of these vessels is very great. McKinnen mentions 40 sail, as lying off one inlet, on the Florida coast. This is a convincing proof of the numerous victims continually thrown on the shoals. The wreckers are accused of being rapacious, and of endeavouring, in a variety of ways, to increase the number of shipwrecks, that their salvage may be augmented. Their great places of rendezvous are the Florida gulf, the Hole in the Wall, and the Hogsties.

The years 1850-1870 witnessed a peak in salvaging wrecks. In 1860, £103,890 worth of goods was landed in Nassau (Figs. 19-20), accounting for 43% of all imported produce by value that year. Some 2,679 men worked in wrecking from a high of 302 ships in 1856,⁷⁵ compared to some 240 men working from 40 vessels licensed at Key West in southeast Florida.⁷⁶ In the first three months of 1861 alone, 16 vessels were "wrecked, injured, or picked up" in The Bahamas, ranging from a ship of 1,000 tons to a small schooner of 145 tons. Their aggregate tonnage was 5,150 tons, while the combined value of property lost was \$475,000. The amount of goods saved was \$225,000.⁷⁷

Various newspapers add color to the profession's structure in the 19th century. Nassau was described in an 1854 issue of the *New York Times* as supported almost entirely by the wrecking business, in which 500-600 local people were licensed. The ringing of a bell announced the news that a wreck had gone ashore, when "Suddenly all loafing comes to an end. The dominoes are dropped in the middle of the game, and the dice... Everything is bustle, stir and haste... Woe to the insurance company that loses a vessel hereabouts." The wreckers took between 40% and 80% of the value of salvaged cargoes and material for their trouble, the Agent for the Underwriters another 5% for sales, and the Chamber of Commerce 10% or 20% more.⁷⁸ The *New York Times* described in June 1884 the schooner *Equator's* salvage of a US bark on the Grand Bahama Bank, alongside 40 small wrecking boats, as "like

Fig. 19. The sponge fleet moored in Nassau harbor, New Providence.



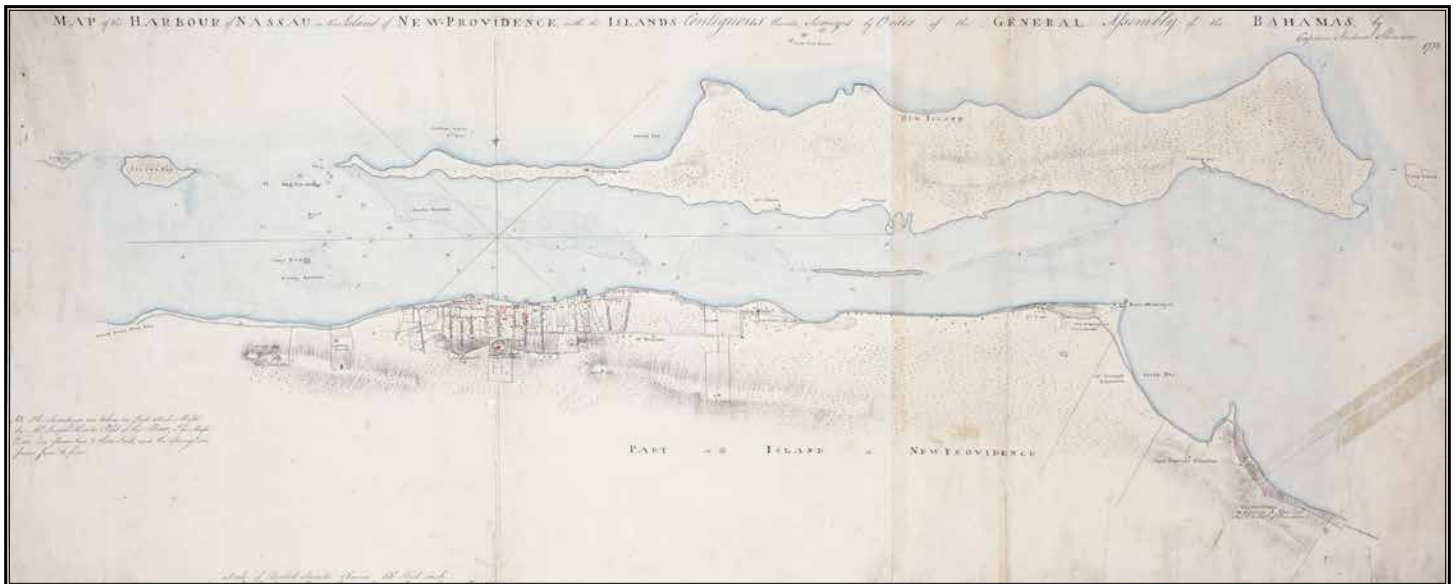


Fig. 20. Plan of the harbor and town of Nassau in New Providence by Captain Andrew Skinner, 1788.

buzzards around a dead horse.” In The Bahamas, it was sarcastically stated, “Every Sunday morning service, every man thinks, ‘Give us, oh Lord, some good lively storms, that we may have plenty of rich wracks, and all to Thy glory!’”⁷⁹

Examples of high-profile fished wrecks, included half of the 350 tons of copper ore saved from an English brig lost off Inagua in September 1857,⁸⁰ and the 100-gun *Conqueror* (Fig. 21), “one of the finest vessels of the British navy,” lost off Rum Key on December 29, 1861. The seven-year-old, 2,845-ton warship had transported a battalion of troops to Jamaica and was on its way back to Bermuda through Crooked Island Channel when disaster struck. Captain Bulldog salvaged 40 of its guns.⁸¹ Three months of salvage carried out by the schooner *Hopewell*, fitted out for diving operations in The Bahamas Channel and neighborhood, in 1875 later took 20 tons of brass, copper, lead and iron to San Salvador. Its captain described how:⁸²

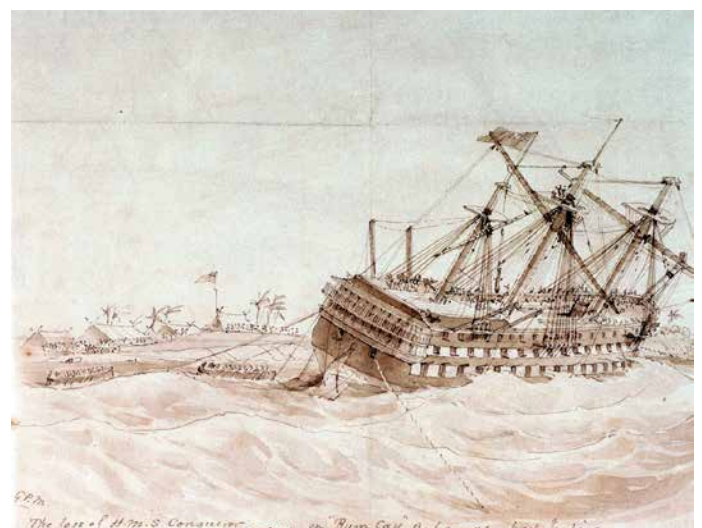
We found her bottoms sound, her engines and heavy machinery were all there, the guns were lying in the bottom and by her sides in good condition. There were thousands of loaded shells and cannon balls lying around which we were afraid to touch. The guns being of large calibre and very heavy cannot be recovered.

When the sea was witnessing a lean spell, the

wreckers of The Bahamas earned a piratic reputation for “collusive wrecking,”⁸³ supposedly boosting their chances of finding and working a wreck. Wreckers were understood to have offered captains money as inducements to sink their vessels, such as the skipper of the schooner *Rover* that was returning from St. Jago de Cuba with a cargo of sugar and rum for the Samuel Saltus Ingham & Co. The *Rover* had sailed through the Crooked Island Passage when two wrecking vessels anchored off the lighthouse boarded the schooner and offered the captain \$6,000 to wreck the ship.⁸⁴

By way of summary, The Bahamas’ wreckers

Fig. 21. The 101-gun first-rate warship HMS *Conqueror* sinking off Rum Cay in The Bahamas on December 29, 1861. Engraving by Captain George Pechell Mends.



earned the most notorious reputation in the world.⁸⁵

If the ocean were not as full of treasures as Mr. Vanderbilt's big safe, I wonder what would become of Nassau... All the good things they have come directly or indirectly from the sea... The Atlantic is a bank that all the islanders draw upon without limit, and their drafts are never dishonored. Whether riches that come from it grow in the water or on the bottom, or whether they find their way into it through the misfortunes of mariners, no matter; they are there, and it is a cold day or a poor tide that does not bring to an island in the ocean some new bit of wealth.

In reality, wrecking was not a robust business model or as lucrative as romantic accounts described. As well as the dangers involved, the slices of the pie taken by authorities left salvage teams with little to show for their work. Estimated annual earnings per individual in Nassau reached a low of £10 in 1865 and a high of £42 in 1867 – wages which were less than a common laborer. All in all, owners and underwriters were left with one-seventh of the value of salvaged materials.⁸⁶

After 1870, wrecking's popularity gradually declined to the negligible two decades later. In 1903, just £94 worth of cargo was saved. Diving for sponges (Figs. 19, 22) replaced hunting for sunken shipwrecks and by 1896 wrecking brought in just £2,164 compared to £81,091 for the sponge industry.⁸⁷

The Bahamas Lost Shipwreck Project has helped nuance the above picture specific to the northern waters (Table 1). Sixty ships in the inventory list were salvaged by local wreckers between 1656 and 1908. Of 37 categories of cargo saved, the most common

was cotton (13) and sugar (13) followed by lumber (9), molasses (8), staves (4), gold, silver and specie (4). Salvors, however, were evidently not picky. Almost anything recovered could seemingly make money from bacon, fish, gunpowder, potatoes and salt to brandy, cigars, coffee, rum, tobacco, whale oil, wine and whiskey.

Most cargoes were taken to Nassau (Figs. 20, 22) to be auctioned off by the likes of H.F. Armbrister or Henry Adderley & Company (Figs. 28, 29), but at times to Green Turtle Key on Abaco Islands and on one occasion to New Orleans. The financial breakdown of salvage deals is discussed in a few cases. The captain of the American flagged ship the *Italy*, sailing from New Orleans to Genoa in Italy, paid wreckers \$16,000 to get the ship off a reef and tow it and its 2,700 bales of cotton into Nassau. After being successfully pulled off, the vessel sank in a storm two miles north of Memory Rock on January 27, 1853.⁸⁸

The American vessel the *Leavitt Storer*, lost near Sand Key on June 23, 1855 while heading from New Orleans to Lisbon in Portugal, agreed that the salvors should be awarded 60% of the value of the cargo; 300 of the 980 hogsheads of tobacco were saved by around 24 wrecker vessels, but the rest of the ship was lost with 3,800 staves.⁸⁹

The American flagged *Taniscot* was sailing from New Orleans to Liverpool in England when it

sank off Sandy Cay on January 8, 1857 with 2,444 bales of cotton, 8,000 staves, 7,441 sacks of wheat and 1,400 sacks of corn valued at \$180,000. The salvage wreckers the *Experiment*, *Mary Ann* and *Carleton* recovered the goods for an agreed reward of 55% of the profits from the cargo's sale.⁹⁰

The *Ellen Bernard* was an American ship en route from

Fig. 22. The sponge fleet moored along the quays of Nassau harbor in New Providence.



Table 1. Details of wreckers that salvaged ships in the northern Bahamas, 1656-1908.

SHIP NAME & FLAG	LOSS LOCATION	DATE OF LOSS	CARGO	PORT OF DEPARTURE & DESTINATION	OUTCOME
Nuestra Señora de las Maravillas (Spanish)	20 miles north Memory Rock	January 4, 1656	Gold & silver (value perhaps 5 million pieces of eight)	Havana (Cuba) to Cadiz (Spain)	Recoveries by Spanish salvors El Dragon, San Antonio & Madama de Brasil (August 1657) & many later expeditions
San Jacobo de Galicia (Spanish)	Deep water near reef off Memory Rock	April 2, 1830	White & brown sugar in boxes & barrels, cigars in boxes	Havana to Spain	Auction for part cargo in Nassau, April 15
Missouri (American)	5 miles from Memory Rock	August 7, 1835	194 tons logwood, 143 boxes brown sugar, 20 tierces of coffee	New Orleans to Marsaille (France)	Salvaged by Messenger, Emma & others
Virginia (American)	Near Matanilla Reef	March 4, 1849	Bacon, whiskey, molasses, cotton	New Orleans to Richmond, VA	Salvaged by 7 wreckers; some cargo taken to New Orleans
Eric (American)	Western Matanilla Reef	January 2, 1851	Molasses, lard, sugar, pork, bacon, salt provisions	New Orleans to Baltimore	Quarter deck broke free; 2 days on raft, floating goods rescued by Exceed of Abaco
Duke (British)	Wood Cay Reef, near Memory Rock	April 14, 1852	3,912 bales cotton	Mobile, AL to Liverpool (England)	2,000 bales salvaged from 1,357-ton ship; 6 salvors died
Hannah (Danish)	Memory Rock	June 30, 1852	1,700 boxes of sugar	Havana to Copenhagen (Denmark)	Triton brought in 200 boxes
Italy (American)	2 miles north Memory Rock	January 27, 1853	2,700 bales cotton	New Orleans to Genoa (Italy)	Wreckers paid \$16,000 to get off reef; freed & wrecked in storm
Leavitt Storer (American)	Near Sand Key	June 23, 1855	980 hogshreds tobacco, 3,800 staves	New Orleans to Lisbon (Portugal)	300 hogshreds tobacco saved by nearly 24 wreckers; salvage costs 60% of goods
Taniscot (American)	Sandy Cay	January 8, 1857	2,444 bales cotton, 8,000 staves, 7,441 sacks wheat, 1,400 sacks: value \$180,000	New Orleans to Liverpool (England)	Salvaged by Experiment, Mary Ann & Carleton for 55% of sale profits
Margaret (American)	Western Little Bahama Bank	December 18, 1859	1,340 bales cotton, 1,200 staves	New Orleans to Glasgow, Scotland	At least 20 wreckers; cargo auctioned 10am, 30 December, by Henry Addlerley & Company, Warehouse No. 3
John W. Andrews (American)	Indian Key, northwest of Grand Bahama Island	June 12, 1864	Lumber, oil, potatoes	Boston to Havana, Cuba	Sails, anchors, chains, boats, part of cargo taken to Nassau & Green Turtle Key, Abaco
Ellen Bernard (American)	Southwest end Grand Bahama	April 24, 1872	Sugar	Cienfuegos (Cuba) to New York	66% cargo taken to Bonded Warehouse No. 1, Nassau; then burnt down
Nara (Russian)	Memory Rock	May 26, 1908	Mahogany	Laguna (Cuba) to Falmouth (England)	Crew picked up by salvors after rowing 24 hours; goods sold by H.F. Ambruster, Nassau

Cienfuegos in Cuba to New York when it sank off the southwest end of Grand Bahama Island on April 24, 1872. The sugar was recovered in return for 66% of the sale of the goods. After being safely stored in Bonded Warehouse No. 1 in Nassau, the storage facility burnt down.⁹¹ Finally, a 45% salvage reward was agreed for the box sugar of the British brigantine the *Morden*, heading from Havana, Cuba, to Boston and stranded at Indian Key off Grand Bahama on May 19, 1860.⁹²

An extensive list of wrecked ships, and the Bahamian salvage vessels that saved at least part of their cargoes, and even some ship's materials, is preserved in the historical accounts examined. The wreckers identified include the British brig *John* (Havana to Baltimore) salvaged off Wood Key by the *Ceres* in March 1809;⁹³ the American brig the *Erie* (New Orleans to Baltimore) salvaged off the western edge of the Matanilla Reef by the *Exceed* of Abaco in January 1851;⁹⁴ and 200 of 1,700 boxes of sugar from the Danish brig the *Hannah* (Havana to Copenhagen) recovered off Memory Rock by the *Triton* in June 1852.⁹⁵

In February 1853, the *Emolous* and *Driver* saved 40 of 300 hogsheads of molasses from the American brig *Wilder P. Walker* (Matanzas, Cuba to Providence, Rhode Island), 6 miles northwest of Memory Rock, along with the sails and rigging, and took it into Nassau.⁹⁶ The British *Queen* recovered molasses from Sandy Cay to Nassau from the American brig the *Emily* (Havana to Bath, ME) in February 1853.⁹⁷ The total loss of an unknown cargo off Memory Rock in December 1853 carried on the French brig *L'Ocean* (Havana to Marseille) was again brought into Nassau by the wrecking sloop the *Avenger*.⁹⁸

Also in December 1853, the British bark the *Water Lily*'s cargo of sugar, rum, pimento and Madeira wine (Jamaica for London) was salvaged off Wood Cay by the *Sarah Elizabeth*, *Carleton*, *Spy*, *Flora Mansell*, *Lady of the Lake* and the *Contest* and taken into Nassau.⁹⁹ The 1,800-ton *Crescent City* steamer's assorted merchandise worth \$100,000, plus mail and passengers (New York to New Orleans), was saved in December 1855, 20 miles southeast of the western Matanilla Reef, by the wrecking schooner the *Defiance*.¹⁰⁰ Logwood, fustic and ship's materials from the German brig

the *Anna* (Laguna de Terminos, Mexico to Falmouth England) were lifted off Memory Rock by the wrecking schooners the *Ebeneazer* and *Alert* in March 1872.¹⁰¹

After the American schooner the *Monte Christi* was stranded on Sandy Cay in September 1878 (Cienfuegos, Cuba, to Boston), its cargo of molasses was partly salvaged to Nassau by the *Contest* and *Telegraph*.¹⁰² The wrecking schooners *Thetis*, *Mary Alice* and *Struggle*, assisted by the sloop *Adeline* (New York to Rio de Janeiro), salvaged an unknown cargo from the British bark the *Pobono* lost off Sandy Cay in October 1879.¹⁰³ And in February 1892, the American schooner *Alena Cover's* lumber and materials (Apalachicola, FL to Sierra Leone) were recovered off Sandy Cay by the *Income* and *Contest*.¹⁰⁴

Multiple ships congregating around a stricken ship was not uncommon in the northern Bahamas. And to the first on the scene went the title of wreck master, who was rewarded for his speedy arrival by earning the right to assign the work to additional salvors as he saw fit (often a bonus to his friends) and was paid a separate fee for his role. In this way, seven wreckers rushed to the *Virginia* (New Orleans to Virginia, VA) when it was wrecked in a storm near the Matanilla Reef on March 4, 1849, taking its mixed cargo of bacon, whiskey, molasses and cotton to Nassau and New Orleans.¹⁰⁵ At the height of a salvage job, when the *Margaret* foundered off the western Little Bahama Bank on December 18, 1859 with 1,340 bales of cotton and 1,200 staves, at least 20 wreckers worked the American ship.¹⁰⁶

The unglamorous, dangerous reality of wrecking is glimpsed in the fate of six members of various salvage teams who died while recovering more than 2,000 of the *Duke's* 3,912 bales of cotton after the 1,357-ton British ship (Mobile, AL to Liverpool, England) sank on Wood Cay Reef near Memory Rock on April 14, 1852.¹⁰⁷ The salvors of the wrecked *John C. Calhoun* (New Orleans to Havre, France), lost with 2,100 bales of cotton off the Matanilla Reef on February 25, 1855, had to contest with a shipboard fire after just 600 dry bales had been recovered.¹⁰⁸ Wreckers paid \$16,000 to get the American ship the *Italy* (New Orleans to Genoa, Italy), and its cargo of 2,700 bales of cotton, off a reef,

2 miles north of Memory Rock after disaster struck on January 27, 1853. While the freed ship was being towed to Nassau, it was lost after the wreckers cut it loose during tremendous seas in a gale.¹⁰⁹

The relative uncomplicated access to stranded ships, and capacity to dive on shallow-water wrecks, coupled with an often-stated preference for the sea over agriculture, created an astonishingly rich tradition of fishing wrecks in The Bahamas. For these reasons, in many cases undisturbed cargoes are the exception rather than the rule for the archipelago’s shipwrecks.

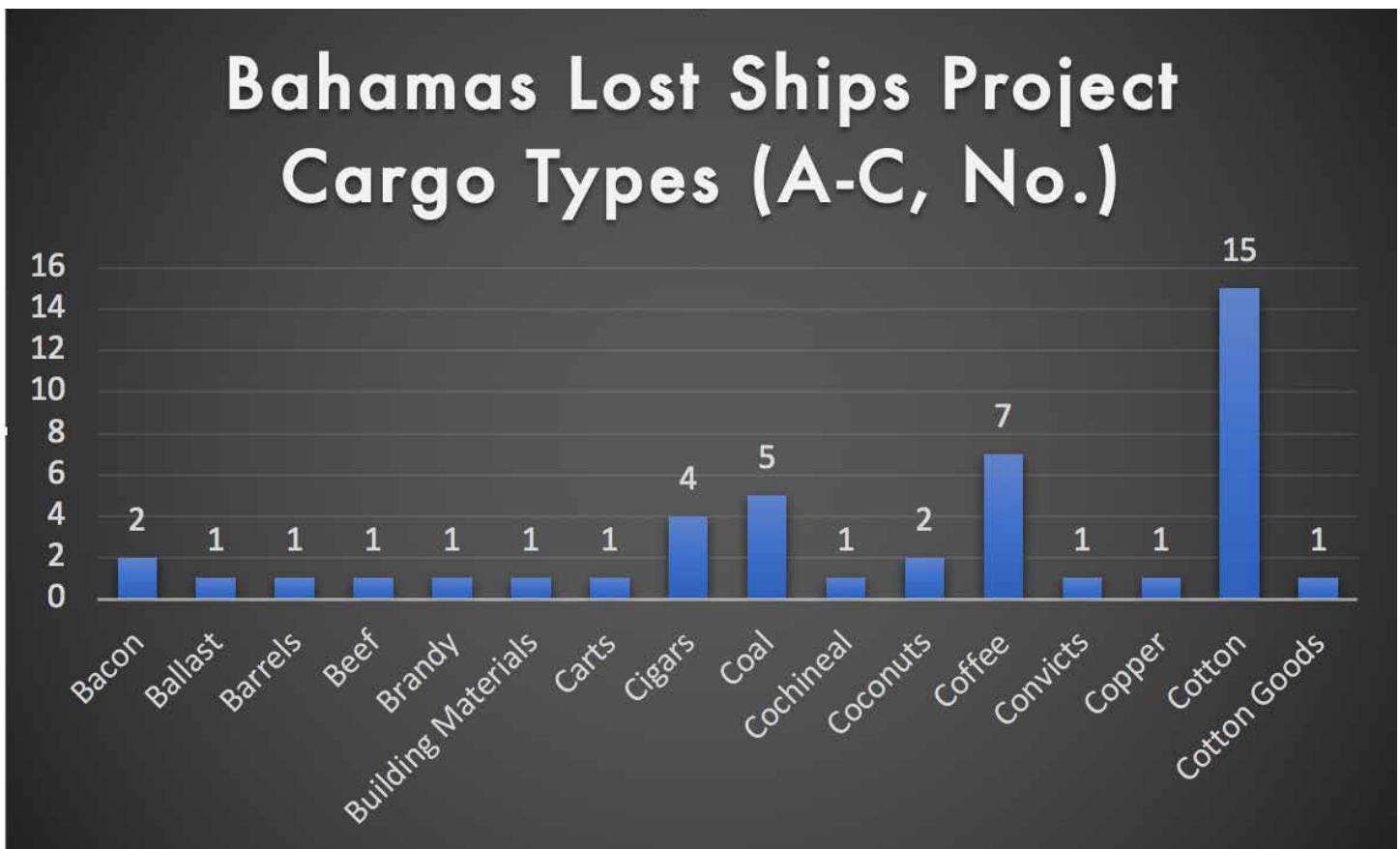
6. Ships and Cargo

A cross-section of global shipping and cargoes, both military and commercial, ended up lost off the western Little Bahama Banks. Two warships, two frigates, two privateers, a Spanish fleet ship and two *nao* met their fate there. Two slavers, a whaler and three salvage boats are further rarities. The majority of vessels are classified as merchant vessels, encompassing a wide sweep of time and construction, including 47 brigs, 35 schooners and 18 barks.

While one of the warship listings is dubious, a supposed ‘British 74’ stranded on the Matanilla Reef on April 4, 1805,¹¹⁰ HMS *Bermuda* did sink two miles northeast of Memory Rock on April 22, 1808. The *Bermuda*, working out of Halifax, Nova Scotia had been cruising in The Bahamas in search of the Portuguese ship *Nossa Senhora da Conceicao*.¹¹¹

The 400-ton Spanish frigate the *San Juan Evangelista*, heading from Havana to Puerto Rico, was caught in a violent storm 24 miles southwest of Walker’s Cay on November 4, 1714. Salvors stripped the vessel of anything of value and left it to the elements.¹¹² Another Spanish frigate, the *Diana*, sailing from Havana to Coruna with government dispatches, sugar, tobacco and some silver and gold, ran into a storm at the mouth of the Florida Strait on December 12, 1791. Twelve leagues northwards of Grand Bahama Island, the *Diana* “struck on a reef... and in a few minutes was forced over the reef into three fathoms of water with the loss of her rudder.”¹¹³

Fig. 23. Types of cargoes historically attested in the northern Bahamas AllenX survey zone.



Bahamas Lost Ships Project

Cargo Types (D-J, No.)

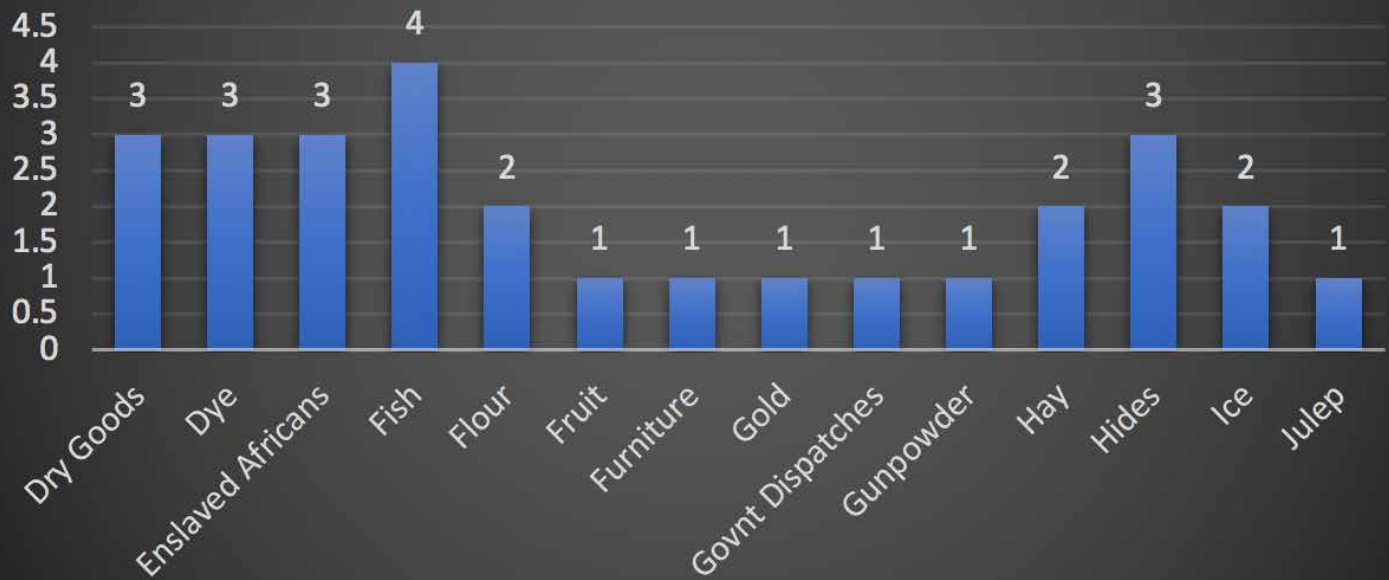


Fig. 24. Types of cargoes historically attested in the northern Bahamas AllenX survey zone.

Nassau in New Providence was a lively base for privateers, and The Bahamas sea lanes witnessed rich pickings at times of war. The *St. Francis* was a French privateer, sailing for Antigua from Philadelphia that came under attack and was stranded on Sandy Cay on the western edge of the Little Bahama Bank before January 20, 1758.¹¹⁴ The *Sans Pareil* was another French privateer, this time lost near the West End of Grand Bahama Island on April 20, 1804. The ship was involved in transporting soldiers out of Havana who had been fighting for French control of Saint-Domingue's wealthy sugar plantations and against what became Haitian independence.¹¹⁵

On the commercial front, a great diversity of goods was lost in the northern Bahamas (Figs. 28-29). Almost all cargoes were composite and comprised multiple goods. A total of 251 cargo forms are registered in The Bahamas Lost Ships Project inventory covering the Allen Exploration survey zone (Figs. 23-27). The 66 types of merchandise are dominated by lumber (43 cargoes), sugar (27) and molasses (13). Unspecified general cargo was registered in 42 cases. Valuables, money, specie, silver

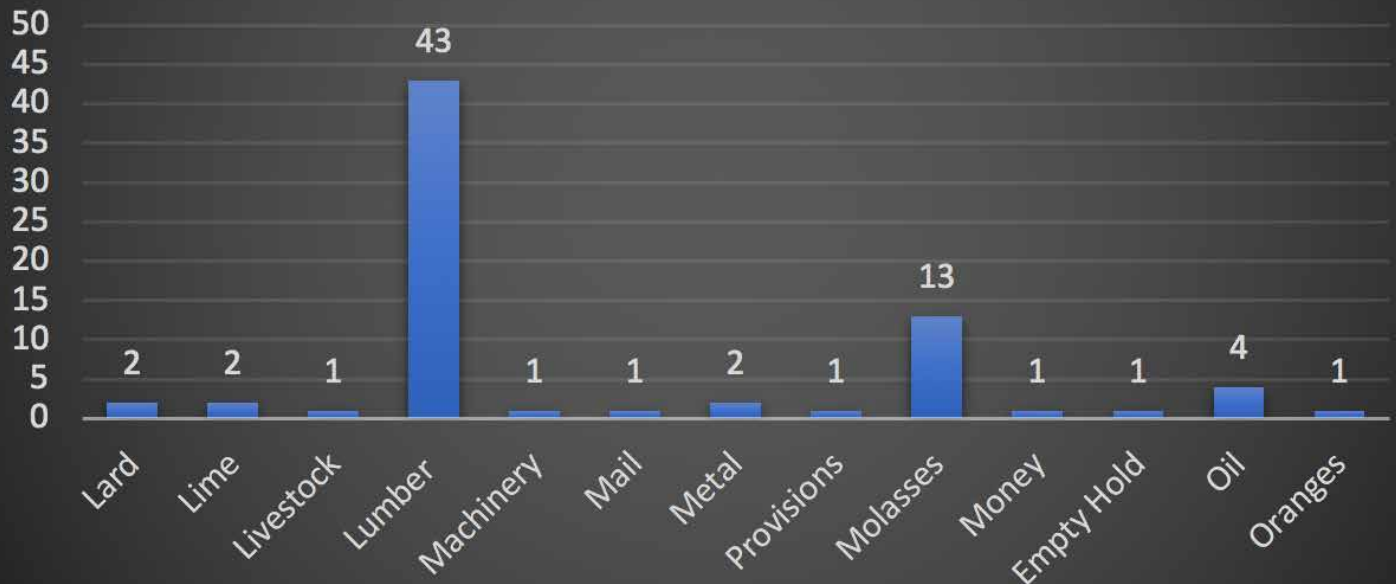
and gold were present on eight ships, all of which were seemingly extensively salvaged.

Materials that could be expected to be preserved within the maritime archaeological record, depending on how they were packaged and stowed, include in the most liberal interpretation brandy (if bottled) (1), building materials (1), coal (5), cochineal (1), coconuts (2), copper (1 site), lumber (43), machinery (1), madeira wine (1), military provisions (1), rum (3), scrap metal (2), potentially quicksilver (1) and whisky (1).

Around half of the cargo forms, 130 or 52%, are organic in nature and would be expected to have decomposed and not be preserved archaeologically. For this reason, the historical record assumes particular value for reconstructing the full audit of commercial shipping in the northern Bahamas. Consignments range from an intriguing array of bacon (2), beef (1) and carts (1) to cigars (4), coffee (7), cotton (16), fish (4), flour (2), fruit (1), gunpowder (1), ice (2), mail (1), oranges (1), potatoes (2), salt (3) and tobacco (3).

The loss of a whaling ship highlights a little recognized part of the Bahamian economy. The 108-ton

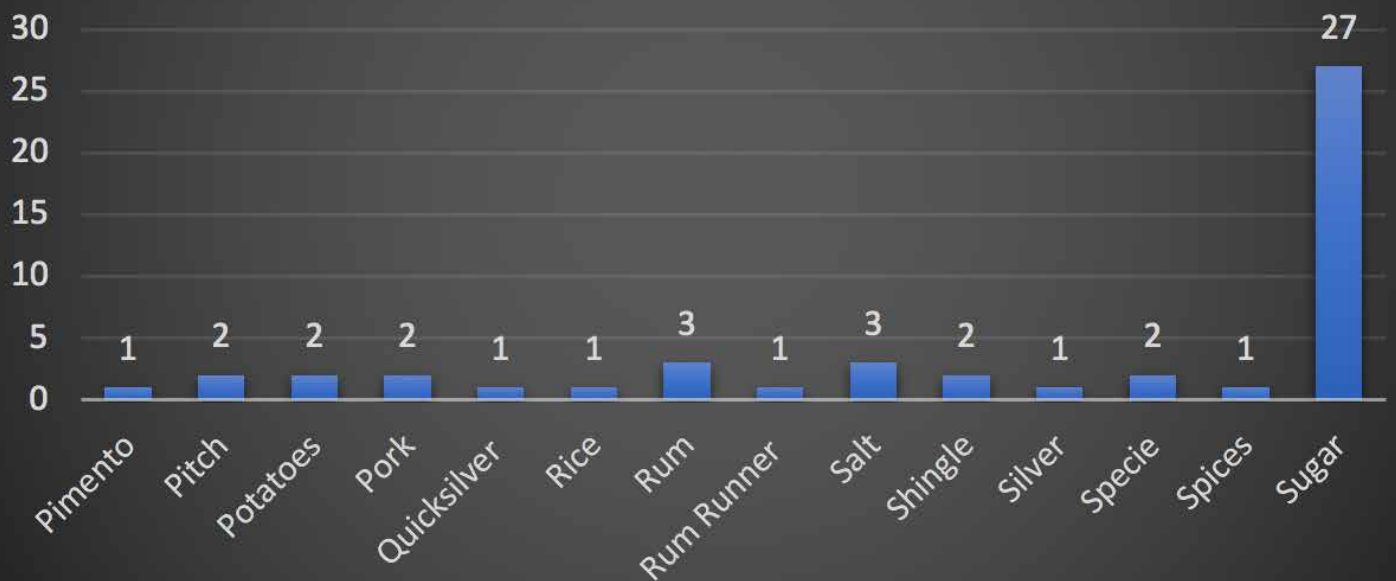
Bahamas Lost Ships Project Cargo Types (L-O, No.)



Figs. 25-26. Types of cargoes historically attested in the northern Bahamas AllenX survey zone.

A. Nickerson from Provincetown, MA was stranded and lost on the Matanilla Reef on June 14, 1852 with 110 barrels of whale oil.¹¹⁶ Whaling in The Bahamas was initially monopolized by Bermudians

Bahamas Lost Ships Project Cargo Types (P-S, No.)



Bahamas Lost Ships Project

Cargo Types (T-W, No.)

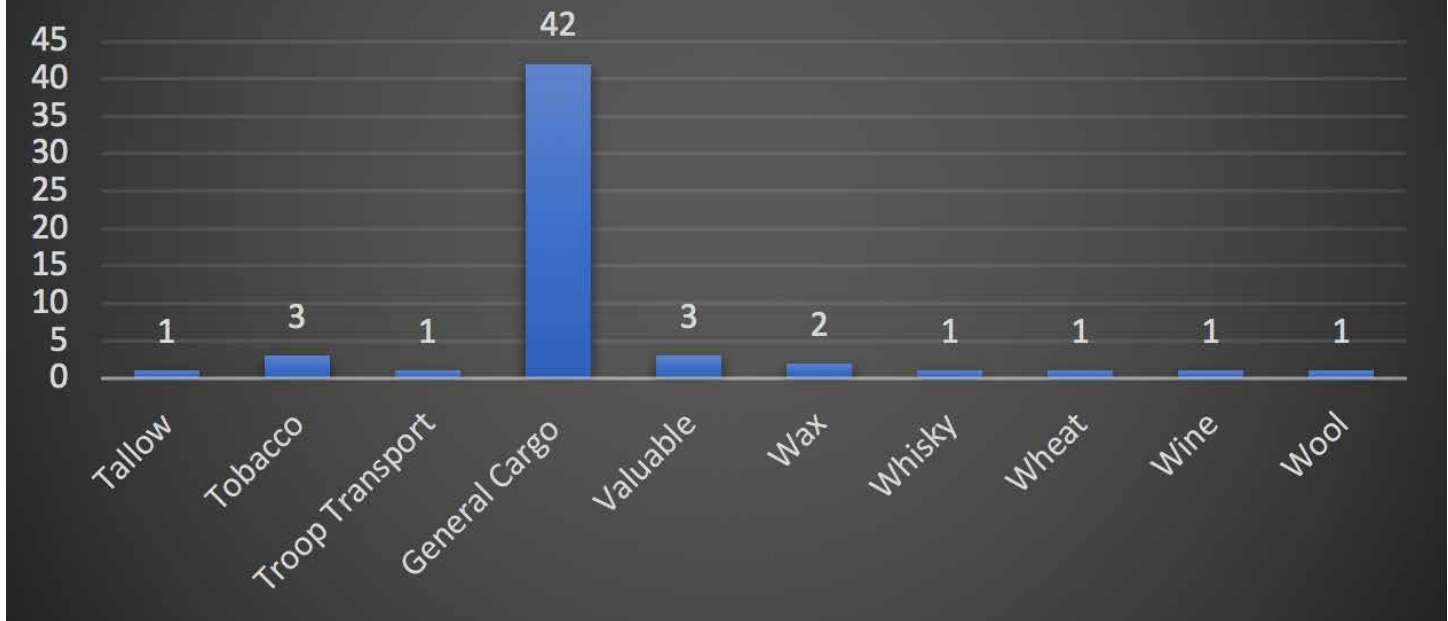


Fig. 27. Types of cargoes historically attested in the northern Bahamas AllenX survey zone.

who established a whale-fishing consortium in the 1660s. John Graves described the bounty of these seas as including “great Quantities of Salt made by the Sun out of the Sea. Tortoise-Shell, Oyl of Whale, Seal and Nurse, &c Spermaceti-Whale sometimes. Amber-Greece often washed up on the Bays.”¹¹⁷ Local salt was indeed just such a cargo of the *James Power*, an American schooner stranded and broken to pieces off Great Fortune Beach, Grand Bahama Island, on May 10, 1845.¹¹⁸

The trade in the most highly represented cargoes, lumber (43), cotton and cotton goods (16), molasses (13) and sugar (27) are explored further below.

Lumber

The lumber included a wide range of timber and semi-finished products, including barrel hoops, box boards/shooks, cedar, logwood, lignum vitae, mahogany, pine and barrel staves. The British ship the *Friends Adventure*, lost on March 15, 1786, some 2 miles from Sandy Key off the western Little Bahama Bank, is the earliest attested shipment of timber. The brigantine-rigged vessel was sailing from New

York to Jamaica with lumber. The crew was saved by salvors from Abaco Island.¹¹⁹ The latest cargo was hard pine transported on the *Impressive*, sunk between Memory Rock and Sandy Cay on December 17, 1920. The 129-foot-long, three-masted schooner of 384 tons was based in Le Have, Nova Scotia, and was heading for St. Thomas in the Virgin Islands.¹²⁰

Lumber was occasionally shipped from Cuba, also from Nassau in New Providence, but in most instances from America: Charleston, Savannah, Boston, Jacksonville, Bath, Eastport and Hallowell, ME, New York, Pensacola, Philadelphia and Portland. Wooden cargo destinations were far-flung, including Havana in Cuba, Jamaica, Haiti, Galveston in Texas, Nassau in New Providence and as far as Buenos Aires in Argentina, Rio de Janeiro, Sierra Leone in West Africa, Barcelona in Spain, and London, Liverpool and Scotland.

Timber cargo sizes could be impressive. The Norwegian-flagged 859-ton, 141-foot-long *Lord Elgin*, lost on October 2, 1866 on the Matanilla Reef during a hurricane while sailing for Greenock, Scotland, was transporting 494,290

BY HENRY ADDERLEY & CO.

On **TUESDAY** next, the 6th instant,
At the Warehouse of
Messrs. John Thomson & Co,
At 10 o'clock,
WILL BE SOLD:

10 CASES GOODS

Saved from Wreck Sp. Schr. "Mosca."

ALSO,
THE HULL OF SAID SCHOONER.

AND ALSO,
The Hull of the Spanish Ship "Espe-
ranza," at Inagua.

TERMS—CASH.

Nassau, 3rd August, 1850.

Wreck Goods! Wreck Goods !!

FOR SALE BY H. R. SAUNDERS.

HANDSOME printed Muslins.
Swiss and Tarlatan Muslins.
Ladies' and Misses' Hose.
Fancy colored Silk and Satin Cravats.
Black Silk and Satin Handkerchiefs.
Watered and Shot Silk for Dresses,
Fancy colored Silk and Gause ditto.
Black, White, and colored Satin.
Saddle Cloths, Shoe Brushes.
Reams Writing Paper, Combs.
Watch Guards, Pearl Buttons.
Black Lace Scarfs, Whalebone.
Pomatum, Perfumed Soap, Fans, &c. &c.
July 3rd, 1850.

Look Here!

THE Subscriber has purchased at the
wreck sale of Am. Barque *Japonica*,
the following articles, which he offers for
sale at the undermentioned prices:

Kegs of Superior Butter, in 25 lb. kegs,
at 1s. stg., by retail 1s. 3d., Do. do. Leaf
Lard, at 7d. stg. by the keg, and 9d. do.,
Am. Rice, at 3d. stg. and 5d. stg. per
quart, Boxes of Clarified Soap, at \$3 box,
25 bars, 56 lbs. at 1s. a bar, Best Phila-
delphia Corn'd Beef, at 7½ stg. by the lb.,
Jules Huel's Transparent and highly
scented Balls of Soap, in boxes 6d. each,
1s. 6d., 2s., and 3s. stg. a box, Savage's
Genuine Bears' Grease, at 1s. stg. per
Bottle, Imitation Morocco, for covering
Furniture and Carriages, 50 inches wide,
at 1s. 6d. stg. per yard.

THOS. K. MOORE.

August 14th, 1858.

JUST PURCHASED

From late Wreck Sales:

JAPAN Cloth for Carriage Tops, &c.,
Gent's Black and Brown Felt Hats,
Balls of Transparent Soap, Huel's
Kathairon.

C. PALACIOS & CO.

August 14th, 1858.

CHEAP WRECK GOODS, BY SAUNDERS, TURTLE & CO.

CASSIMERE Pants, \$2 to \$2½ per pair.
Best Overcoats, \$4 to \$6,
Black Satin Vests, only \$2, (good),
Fine col'd and white Shirts, 5s. to 7s.
Best French Calf-skin Long Boots
only \$4, (dry.)
Do. black sewing Silk, at \$2 per lb.,
Rich French Plumes & Wreaths (dry)
Do. do. col'd & white Kid Gloves
(dry,) black crape embroidered Col-
lars, Laces, and Falls, (dry.)
Very cheap French Jaconet Embroi-
dery and trimmings,
Best English Needles at 2d. per paper,
Penknives, Razors, Belts,
Rubber Combs, &c., &c., &c.
December 22nd, 1855.

WRECK CROCKERY

STONE China Plates, Cups and Sau-
cers, &c., &c., &c.

For sale by

M. MENENDEZ.

June 5th, 1858.

WRECK GOODS

FINE Irish Linen, in 12½ and 24 yard
pieces, Ladies' White Lawn Pocket
Handkfs., Linen Platillas, Col'd Muslins,
White Cottons, Fancy Prints, Linen
Checks, Coat's 6 Cord (200 yards) best
Thread, &c., &c.

For sale by the Subscriber

M. MENENDEZ.

June 12th, 1858.

T. DARLING & CO. WILL CONTINUE THE SALE OF DAMAGED GOODS

FROM THE WRECK OF THE SHIP
"KNICKERBOCKER,"

At the Warehouse of
MESSRS. JOHN THOMSON & Co.,
On Monday next, the 14th instant,
AT 11 O'CLOCK.

Terms—CASH before removal of
property.
June 12th, 1858.

AUCTION SALES

SAWYER & MENENDEZ

WILL SELL,

On **MONDAY** next, the 14th instant,
AT WAREHOUSE NO. 3,
At 10 o'clock, precisely.

SAILS, RIGGING,
ANCHORS, CHAINS,
BOATS, &c., &c.

AND
Immediately after, at their WHARF,

**304 CROTCHES AND LOGS
MAHOGANY,**

Saved from wreck of British Brig *Alma*,
&c. and sold by order of Captain Ray-
mond, for account of whom it may
concern.

Terms—CASH.
June 12th, 1858.

ALEX. JOHNSON

WILL SELL,

To-morrow, Thursday, the 15th inst.,
At the Warehouse of
MESSRS. SAUNDERS & SON,
At 11 o'clock,

MUSLINS, COTTONS,
CALICOES,
BLANKETS,
BOOTS, SHOES,
&c., &c., &c.

Saved in a damaged state
from the wreck of the American schr.
"M. A. Johnson," and sold by order of
Captain Anthony Ireland, for the bene-
fit of all concerned.

Terms—CASH.
September 14th, 1859.

For Sale ex Wreck "J. Ingersoll":

CHINA Dinner Sets, do. Cups and Sau-
cers, do. Soap Stands, Wash Boards,
Sets of Harness, Double and Single,
Ladies' and Gentlemen's Saddles, Bri-
dles, Martingales, Whips, Stirrups,
Bits, Curb Chains, Saddle Bags, Calf
Skins, Sole Leather, Hog Skins, Curl-
ing Irons, Compasses, Gent's Long
Boots, Brooms, Horse Netts, Brown
Socks, Color'd Muslins, Stout Cotton
Tick, Shoulder Braces and Stays,
Stoves, Cherry Pectoral, Tricophe-
rous, Letter Paper, &c., &c.

SAUNDERS & SON.

June 1st, 1859.

Fig. 28. Adverts for the sale and auction of shipwrecked cargoes and materials in Nassau, New Providence, as published in the *Bahama Herald*, *Nassau Guardian* and *Nassau Times* between August 1850 and May 1884.

**CHEAP WRECK GOODS,
BY SAUNDERS, TURTLE & CO.**

CASSIMERE Pants, \$2 to \$2½ per pair,
Best Overcoats, \$4 to \$6,
Black Satin Vests, only \$2, (good.)
Fine col'd and white Shirts, 5s. to 7s.,
Best French Calf-skin Long Boots,
only \$4, (dry.)
Do. black sewing Silk, at \$2 per lb.,
Rich French Plumes & Wreaths (dry)
Do. do. col'd & white Kid Gloves,
(dry,) black crape embroidered Col-
lars, Laces, and Falls, (dry.)
Very cheap French Jaconet Embroi-
dery and trimmings,
Best English Needles at 2d. per paper,
Penknives, Razors, Belts,
Rubber Combs, &c., &c., &c.
December 22nd, 1855.

**T. DARLING & CO.
WILL SELL,**

To-morrow, Thursday, 27th instant,
At 11 o'clock,
At their Warehouse,

A Large quantity of valuable Jewelry,
and cases of Merchandise,
Saved from the wreck of Am. steamer
"Crescent City," A. G. Grey, Commander.
Sold for the benefit of whom it may con-
cern. Catalogues of the Jewelry and cases
will be furnished at the sale.
TERMS—which will be strictly adhered
to—**CASH** before removal of property.
December 26th, 1855.

WRECKED GOODS

AT PRICES QUITE UNPRECEDENTED.
Consisting of—

BLACK figured silk Dresses
Colored silk Pocket Handkerchiefs
Head Handkerchiefs
Cotton Pocket Handkerchiefs
Colored Linen Drills, Linen Duck
Thread Edgings and Insertions
Neck Ribbons, Colored Satin Ribbons
Black and blue Lacing, Black Alpaca
Linen Towels, Huckaback
Coarse Toweling, White Flannel
Stripe Shirtings, White Shirtings
Cotton Drawers, Blue Jeans
Brown Cottons, Scented Soap
Shaving Soap, Elastic Braces
Cotton Tapes, Hair Brushes
Plate Brushes, Nail Brushes
Fine-tooth Combs, Pocket Combs
Dressing Combs, Buckskin Gloves
Berlin Gloves, Riding Gloves
Purses, Hooks and Eyes, Black Hats
Indelible Ink, Memorandum Books
Fig Tobacco, Olive Oil, Hand Saws
Boxes St. Julien Medoc
White, yellow, green, and black Paint
W. J. WEECH & SON.
21st September, 1853.

T. DARLING & CO.

Will sell on Friday, 28th instant,
At the Bay-lot of Messrs. Saunders, Tur-
tle & Co., at 11 o'clock,



THE Hull and materials of
the brig **LION**, Dexter, master,
condemned by a Board of Sur-
vey. **ALSO,**

Immediately after the above sale,
At the Bay-lot of Messrs. Johnson & Brother,
About 100,000 ft. W. P. Boards,
Landed from the brig Lion. Sold for the
benefit of whom it may concern, by order of
the master.

TERMS—CASH.
December 26th, 1855.

WRECKED GOODS!

FOR SALE by the Subscribers, consist-
ing in part of the following, viz :—
White Linen Drill
Pieces white Irish Linen
Do. colored Cassimeres, at 3s. st
per yard
Do. black do.
60 pieces colored Muslins (French) and
warranted, fast colors
Pieces white figured Damask, 8 & 10
qrs. wide, 1s. 6d. & 2s. per yard
Do. do. Linen Sheeting, 8 quarters
Union Sheeting, do. do.
White and brown cotton do do.
Pieces Furniture Calico
White and brown Cotton, &c. &c.
Gent's black satin velvet Hats, French
style
Men's long felt black Hats
Do. short do. do.
Do. do. white do.
Boys' do. do. do. do.
Men's Cloth Caps, oil skin covers
Do. Oil skin do., 1s. each
ALSO—
Men's Wellington Boots
Do. Botees, Boys' Long Boots.
And a variety of articles too numerous to
mention, and which are offered at extremely
low prices.

C. PALACIOS & CO.

17th September, 1853.

**WRECK GOODS!
WRECK GOODS!**

R. W. H. Weech

HAS purchased at the late Wreck Sale
the undermentioned delicacies, and
sells them at fabulously low prices at his
Stores in Market & Bay Street:

Tins Perdrix Truffee
Do. Salmis d'Alonettes
Do. Truffes du Perigord.

ALSO

Toilet Vinegars, Hair Dye
Brown Linen, Do. Drill
Fine White Shirtings
Turkey Red Calico
White Muslins, do. Zinc Paint
&c., &c., &c.

N.B.—Empty Barrels Purchased.
Feb. 16, '84.

Public Auction.

**R. W. FARRINGTON
WILL SELL**

On Friday next, the 29th inst.,
At Warehouse No. 10,
At 11.30 o'clock:

A quantity of Kerosene Oil, ex wreck
Am. Brig "Goodwin."

Also at No. 3 Warehouse,

Continuation of sale of Goods, Al-
Rice, Cheese, &c., ex wreck Spanish
steamer "Avendafio."

TERMS—CASH on delivery.

Fig. 29. Adverts for the sale and auction of shipwrecked cargoes and materials in Nassau, New Providence, as published in the *Bahama Herald*, *Nassau Guardian* and *Nassau Times* between August 1850 and May 1884.

Table 2. Ships wrecked off the northern Bahamas linked with cotton cargoes, 1822-1886.

SHIP NAME & FLAG	LOSS LOCATION	DATE OF LOSS	CARGO	PORT OF DEPARTURE	DESTINATION
Speedy Peace (American)	Sand Key	February 11, 1822	Cotton &c.	Mobile, AL	New York
Joseph (American)	30 miles west Memory Rock	June 2, 1824	Cotton & staves	Mobile, AL	New York
Ceres (Presumed US)	West end Grand Bahama Island	October 14, 1842	392 bales of cotton	Mobile, AL	New York
Virginia (American)	Near Maranilla Reef	March 4, 1849	Bacon, whiskey, molasses, cotton	New Orleans	Richmond, VA
Toronto (American)	Dutch Bars, north of Memory Rock	January 2, 1851	Cotton, cotton goods, lard, beef, pork, flour, fallow	New Orleans	New York
The Duke (British)	Wood Cay Reef, near Memory Rock	April 14, 1852	3,912 bales cotton	Mobile, AL	Liverpool, England
Paulita (Spanish)	Wood Cay Reef	April 21, 1852	Cotton, wax, &c.	New Orleans	Trieste, Italy
Italy (American)	2 miles north Memory Rock	January 27, 1853	2,700 bales cotton	New Orleans	Genoa, Italy
Unidentified	Maranilla Reef	December 7, 1854	“supposed cotton”	-----	-----
John C. Calhoun (American)	Maranilla Reef	February 25, 1855	2,100 bales cotton	New Orleans	Havre, France or Trieste, Italy
Tanscot (American)	Sandy Cay	January 8, 1857	2,444 bales cotton, 8,000 staves, 7,441 sacks wheat, 1,400 sacks corn (value \$180,000)	New Orleans	Liverpool, England
Caroline (American)	Wood Cay	January 26, 1866	Cotton, wool	Galveston, TX	New York
Rhine (British)	Near Memory Rock	January 26, 1866	1,145 bales cotton, hides	New Orleans	Liverpool, England
Cairo (British)	Sandy Cay Bar	February 14, 1876	4,450 sacks cotton, seed oil cake, 5,520 staves	New Orleans	Cork, Ireland
Nordmaling (Swedish)	Sandy Cay	March 29, 1879	1,190 bales cotton	Galveston, TX	Liverpool, England
Cyclone (American)	15 miles south Memory Rock	January 27, 1886	2,902 bales cotton	New Orleans	New York

feet of timber and 809 “sticks” of lumber.¹²¹ Even this was eclipsed by the *Eliza J. McManemy*'s 700,000 feet of pine wrecked on the Dutch Bar of the Little Bahama Bank on July 3, 1896. The American barkentine-rigged 152-foot-long ship of 746 tons was heading from Philadelphia by way of Pensacola for Rio de Janeiro in Argentina.¹²²

Cotton

The 17 cotton cargoes cover 64 years of maritime trade between 1822 and 1886. The consignments (Table 2) range in size from 3,912 bales shipped on the British flagged *Duke*, lost off Wood Cay Reef on April 14, 1852,¹²³ to 392 bales sunk on the probable American trader the *Ceres* off the west end of Grand Bahama on October 14, 1842. Ten cargoes departed from New Orleans and another two from Mobile, Alabama, and two from Galveston, Texas. Intended destinations spanned New York (6 shipments) and Liverpool England (4) to Richmond, VA, Trieste and Genoa in Italy, Havre in France, Glasgow in Scotland and Cork in Ireland (single consignments each).

The pattern of cotton shipments fits recognized economic history. By 1800, the US produced 40 million pounds of cotton yearly.¹²⁴ ‘King Cotton’ became New Orleans’ leading domestic import in 1826 and quickly accounted for more than 80% of the city’s exports to foreign ports.¹²⁵ By the 1850s, half of the Old South’s total cotton production routinely passed through New Orleans.¹²⁶ In light of the cotton embargo established in Britain and France between 1861 and 1862,¹²⁷ and shipping blockades enforced during the American Civil War (1861-1865), notably no cargoes of cotton are represented in ship losses in the northern Bahamas in these years.

Two lost cargoes within The Bahamas Lost Ships Project database date to the 1820s, two to the 1840s, eight to the 1850s, two to 1866, two to the later 1870s and one to the 1880s. Just as slavery and sugar are intimately intertwined in Cuba, a direct correlation existed between Southern cotton and enslavement. Labor for Mobile in Alabama’s cotton industry underpinned Timothy Meaher’s voyage of the *Clotilda* in 1860, the last slave trader to illegally traffic enslaved West Africans into America.¹²⁸ Charleston served as a primary port in the Americas. A higher volume of trafficked humans arrived in the South Carolina city than in any other North American mainland colony.¹²⁹

Ten of the cotton-trading ships lost off the northern Bahamas were American, three British, one Spanish and one Swedish. The vessels sank throughout the survey area, including on the Matanilla Reef; Sandy Key; the west end of Grand Bahama Island; at Memory Rock and around it (2 miles north; on the Dutch Bars, a few miles north; 30 miles west northwest; on Wood Cay Reef; 15 miles south).

7. Sugar & Slaves

Despite the low representation of three slaver wrecks among the maritime losses, the economy of the slave trade is conspicuous in the ships sunk in the northern Bahamas (Figs. 30-31) in 55 consignments of sugar, molasses, cigars, coffee, tobacco and timber on 28 shipwrecks (Table 3). Two large slavers working out of Havana, Cuba,

and outbound to West Africa, were stranded in a storm on the Matanilla Reef on January 23, 1817 and seemingly lost.¹³⁰ Two years later, the *Celeste* was similarly stranded and then wrecked off the west end of Grand Bahama Island

Fig. 30. Recreation in The Bahamas Maritime Museum of enslaved Africans trafficked across the Middle Passage in a slaver hull. Photo: © Allen Exploration.



on March 24, 1819 after being seized by the *Patriot* privateer. It was inbound from West Africa, almost certainly heading for Cuba. The Spanish flagged vessel was being re-routed to sell its human cargo of 170 people in Georgia to the financial benefit of the privateer at the time of its loss.¹³¹

Lumber was a major raw material that was also essential to install slave decks in merchant vessels to ‘contain’ enslaved Africans.¹³² Within the historical record, boards and shooks needed to make crates and boxes for shipping sugar and cigars were shipped from Baltimore, Boston and Portland to Havana and Matanzas in Cuba in 1846, 1850, 1866 on American flagged ships, all curiously lost off Gorda Cay, Abaco Island.¹³³ The 480-ton and 150-foot-long, three-masted schooner the *Nellie A. Drury*, dashed to pieces off Eight Mile Rock, Grand Bahama Island, in 1889, was shipping 2,210 shooks and heads and 1,531 bundles of hoops to Cardenas in Cuba when disaster struck.¹³⁴

Cultivating cane and producing sugar, coffee and tobacco for cigars in Cuba required colossal logistics, at the dark heart of which was a reliance on the trafficking of humans for slave labor. Slave revolts and the decline of the sugar industry on Saint-Domingue, modern Haiti, set the foundations for Cuba to replace Hispaniola and dominate the regional plantation economy.¹³⁵ The number of sugar estates, *ingenious*, increased dramatically in Cuba from 529 in 1792 to 1,000 in 1827 and 2,430 in 1862. Sugar production rose sharply correspondingly from 19,000 tons in 1792 to 144,000 tons in 1846 and 446,000 tons in 1861.¹³⁶ Sugar mills that could yield 40 tons per



Fig. 31. The early 19th-century Clifton Plantation, New Providence, operated by enslaved Africans. Photo: © Sean Kingsley.

mill in the 1760s were turning out 170 tons by 1827.¹³⁷

As well as the green cane blanketing Cuba, 60 coffee plantations ringed Havana by 1800.¹³⁸ The largest estate was described as owning a million trees; another estate in Angenora was run by 450 slaves.¹³⁹

By 1792 an estimated 85,000

African slaves and 54,000 free people of color lived in Cuba, a figure which more than quadrupled to 437,000 slaves by 1847 (and 153,000 free people of color).¹⁴⁰ For a plantation to produce 2,000 boxes of sugar required 300 enslaved Africans. An adult male slave experienced in plantation work was valued at \$450 or \$500 dollars and a newly arrived slave at \$370 to \$400.¹⁴¹

In the 30 years up to 1820, which witnessed more than 200,000 enslaved Africans trafficked to Cuba, 50,000 are believed to have died in transit.¹⁴² About 7-12% of enslaved Africans did not survive the disruption of settling into their new enforced lives either, while 10-15% of estate labor died every year.¹⁴³ Spanish Havana was described as a “banqueting place of death.”¹⁴⁴

The more Spain was progressively stripped of its empire, the more the revenues from the Cuban sugar trade became the life blood of its treasury. The island was transformed “from a neglected, underpopulated, and somewhat economically stagnant way station on the periphery of the vast Spanish overseas possessions to become the center of an emasculated American empire.”¹⁴⁵ Preserving slavery as enforced labor kept powerful merchants and slaveholders loyal to Spain. The rich island colony was home to a disproportionately high 29 marquises and 30 counts. Most of these ‘sugar noblemen’

Table 3a. Ships wrecked off northern Bahamas linked to the slave trade & plantations on Cuba, 1791-1895.

SHIP NAME & FLAG	LOSS LOCATION	DATE OF LOSS	CARGO	PORT OF DEPARTURE	DESTINATION
Diana (Spanish)	12 leagues north of Grand Bahama Island	December 12, 1791	Sugar, tobacco, other	Havana	Corunna (Spain)
Jenny (American)	Matanilla Reef	June 18, 1798	500 boxes sugar	Havana	Philadelphia
Gipsey (American)	Near Memory Rock	April 21, 1812	White sugar, coffee	Havana	Boston
Juanita (Spanish)	Near Memory Rock	December 26, 1814	Sugar, coffee, copper, hides, dry goods	Havana	Cadiz
Unidentified	Matanilla Reef	January 23, 1817	Outbound slaver	Havana	Africa
Unidentified	Matanilla Reef	January 23, 1817	Outbound slaver	Havana	Africa
Peruvian (American)	Between Memory Rock & Matanilla Reef	April 27, 1817	Sugar, coffee, molasses, cigars	St. Jago de Cuba	Charleston
Celeste (American)	West end Grand Bahama Island	March 24, 1819	170 slaves	-----	Presumed Cuba
Henry (American)	West end of Grand Bahama	December 20, 1826	Sugar, molasses, cochineal, 2,000 oranges etc	Havana	Barcelona
San Jacobo de Galicia (Spanish)	Near Memory Rock	April 2, 1830	White & brown sugar in boxes & barrels, boxed cigars	Havana	Spain
Especulacion (Spanish)	Memory Rock	January 24, 1836	Sugar, old iron, 13 convicts	Havana	Cadiz
Monument American)	Gorda Cay, Abaco Island	February 22, 1846	Boards, shooks, fish	Portland	Matanzas (Cuba)
M. Joy (American)	Dutch Bar, 6 miles from Memory Rock	March 1, 1846	Molasses & sugar	Cardenas	New York
San Andros Apostol (Spanish)	Between Memory Rock & Sandy Cay	September 19, 1849	Sugar, coffee & cigars	Havana	Hamburg

Table 3b. Ships wrecked off northern Bahamas linked to the slave trade & plantations on Cuba, 1791-1895.

SHIP NAME & FLAG	LOSS LOCATION	DATE OF LOSS	CARGO	PORT OF DEPARTURE	DESTINATION
Shawmut (American)	Gorda Cay, Abaco Island	January 29, 1850	Box shooks	Boston	Havana
Euphemia (British)	West Bar, 10 miles from Sandy Cay	January 10, 1851	Sugar & casks of molasses	Matanzas	St. John, Newfoundland
Tonquin (American)	Gorda Key, Abaco Island	April 19, 1851	280 hogsheds sugar, 60 hogsheds molasses	Cardenas	New York
Unidentified	Eight Mile Rock, Grand Bahama Island	April 23, 1851	Sugar, molasses	Presumed Cuba	-----
Hannah (Danish)	Memory Rock	June 30, 1852	1,700 boxes sugar	Havana	Copenhagen (Denmark)
Morden (British)	Indian Key, Grand Bahama	May 19, 1860	Boxed sugar	Havana	Boston
E.M. Haley (American)	Gorda Key, Abaco Island	February 14, 1862	Sugar molasses	Cuba via Nassau	Boston
William Henry (British)	Gorda Cay, Abaco Island	October 2, 1866	Lumber, shooks	Portland	Havana
Fawn (British)	West end, Grand Bahama Island	May 15, 1867	837 boxes sugar, about 17,000 cigars	Havana	Boston
Ellen Bernard (American)	Southwest Grand Bahama Island	April 24, 1872	Sugar	Cienfuegos	New York
Harry Virden (American)	Southwest Sandy Cay	April 25, 1880	600 hogsheds sugar	Sagua	Philadelphia
Elva E. Petrengill (American)	Sandy Cay Reef	January 26, 1888	3,000 bags sugar	Cienfuegos	New York
Nellie A. Drury (American)	Eight Mile Rock, Grand Bahama Island	January 29, 1889	2,210 shooks & heads, and 1,531 bundles hoops, 503 tons coal,	Baltimore	Cardenas (Cuba)
Sadie A. Thompson (American)	8 miles north of Memory Rock	February 8, 1895	5,700 bags centrifugal sugar	Catbarien	Philadelphia

acquired their wealth from sugar plantations and bought their titles from Madrid for anywhere from \$20,000 to \$50,000.¹⁴⁶

Cuba became a bustling entrepot for exporting sugar, molasses, cigars and coffee, and for incoming goods. By 1800, more than 800 merchant vessels unloaded their cargoes in the island and 1,057 in 1828 (excluding slave ships).¹⁴⁷ In the same year, 142,097 *cajas* of sugar were exported. Each *caja* box held 183 kilograms, which equates to a staggering 26,003 tons of sugar sent abroad annually. The United States and Great Britain bought about two-thirds of the market equally in 1793. After 1794, however, the US took the lion's share.¹⁴⁸ As the island's fortunes rose, the number of North American ships arriving in Cuba increased from 606 in 1800 to 1,702 between 1846 and 1850 and 2,088 between 1851 and 1856. By the early 1880s, Cuban sugar was almost completely a North American economic interest, with almost 94% of exports shipped to the United States.¹⁴⁹

For much of this period, the trading of enslaved peoples by ship was illegal. Denmark abolished the trade in 1792, England in 1808, Sweden in 1813 and Holland in 1814. The United States also outlawed the slave trade in 1808. Spain held out for as long as possible in a "mystic hibernation,"¹⁵⁰ despite a pretense of concern. In September 1817, King Fernando VII banned his subjects from engaging in the slave trade on the coast of Africa north of the equator and from May 1820 south of the equator. Captains caught contravening the rules were to be imprisoned in the Philippines for ten years and their human cargoes freed.¹⁵¹

A new royal decree of March 1830 empowered the Cuban captain-general to impose severe fines

"upon so inhuman [a] traffic [so] that no longer would there be any importation of Negroes into the island."¹⁵² In reality, the decree was not even published in Cuba, which continued its bad ways. A second Spanish-British treaty banning the slave trade was signed in Madrid in June 1835 and the Criminal Law Regarding the Slave Trade followed in March 1845.¹⁵³

Despite this intense pressure to ban the trade in Spanish Cuba, an estimated 543,882 enslaved Africans were shipped to Havana between 1821 and 1867 when the trade was supposedly illegal.¹⁵⁴ The length of Cuba's coastline, and thousands of small islands and keys around it, made it almost impossible for the English West Africa Squadron's warships to patrol the seas effectively.

More than 1,500 vessels entered Cuba's ports annually.¹⁵⁵ Distinguishing slavers from everyday traders, and deciding which ships to board, was practically impossible. All the while, the Spanish inter-island slave trade remained legal.

The maritime losses in the northern Bahamas survey area cover the entire struc-

ture of slavery in Cuba's plantation economy (Table 3). The *Sans Pareil* was a 16-gun French privateer transporting General Lavalette and his retreating soldiers after fighting the former slave Toussaint Louverture, turned Governor General of Saint-Domingue in the Dominican Republic.¹⁵⁶ Napoleon Bonaparte planned in the spring of 1801 to remove him from power, deport all leading officers of color and reinstate slavery.¹⁵⁷ France was defeated, lost its control over Saint-Domingue's 793 sugar factories, 3,151 indigo factories and 3,117 coffee factories, and Jean-Jacques Dessalines declared independence for Haiti on January 1, 1804.¹⁵⁸



Fig. 32. The *Nancy* wrecked on the Bahama Banks during a slaver voyage in 1767. Onboard was newly freed Olaudah Equiano, the future Black father of the abolition movement.

The lost wrecks include two slavers outbound to West Africa and one inbound. Timber for constructing slave decks and shooks for fabricating sugar and cigar boxes are represented too. Exports of Cuban sugar and molasses are identifiable on 20 wrecks, cigars among four cargoes and coffee on another four. In terms of scale, for sugar some consignments consisted of 5,700 bags, 3,000 bags, 1,700 boxes, 837 boxes, 500 boxes, 600 hogsheads, 280 hogsheads and 60 hogsheads of molasses. If the 1,700 boxes exported on the Danish ship the *Hannah*, lost off the Memory Rock on June 30, 1852, en route for Copenhagen, corresponded to *cajas* of 183 kilograms each, then a highly profitable cargo of 311 tons of sugar was destroyed. Just 200 boxes were salvaged.¹⁵⁹

Technically, within The Bahamas Lost Ships Project inventory, 20 of these 28 shipwrecks or 71% linked to sugar and coffee and the transatlantic trade to West Africa sailed after 1820, when the Spanish slave trade in Cuba was legally prohibited.

8. Conclusions: Between History & Archaeology

The Bahamas Lost Ships Project has enabled the full historical shipping of the area surveyed for shipwrecks by Allen Exploration to be assessed for the first time. The difference between the 176 maritime casualties identified and 19 wrecks ground-truthed to date by Allen Exploration highlights the area's ongoing potential. Some 89% of the total inventory is yet to be discovered archaeologically.

The historical evidence is particularly useful for filling out the wealth of shipping profiles in these sea lanes: vessel nationalities, ship types, origins and destinations, cargo forms and wreck and salvage histories. As in all ocean trade, organic consignments are highly represented but are not preserved in the archaeological record.

Wreck preservation for wooden ships in the northern Bahamas is an environmental lottery conditioned by:

1. The dynamics of how a vessel broke up.
2. The weather regime at the time of loss: storm ferocity and current strength.



Fig. 33. Jim Sinclair and Dan Porter examine the *Maravillas* wreck's debris trail. Photo: © Allen Exploration.

3. A ship's potential for sealing a wreck under and amongst heavy ballast, cannon, silver ingots and other durable materials.
4. The sediment regime: how rapidly sand infiltrated a hull and covered a site and to what extent sediments remained stable (cocooning cultural remains within a relatively anaerobic environment) or dynamically uncovered and re-covered the remains.
5. Salvage extent.
6. Ongoing storm and hurricane pressures.

To date, the 19 shipwrecks identified within the Allen Exploration survey zone (Figs. 34-35) range from the heavily scattered (*Maravillas*) to poorly preserved ballast heaps associated with durable materials (iron rigging/fittings, musketballs, iron shot). No hulls have been identified.

Fig. 34. AllenX's *Axis* research ship heads out to the *Maravillas* wreck site zone. Photo: © Allen Exploration.



The rarity of ceramics, and their fragmentary nature when they are encountered,¹⁶⁰ reflects the harshness of the region's environmental regime. While this state of preservation could in part be a result of extreme historic salvaging and the use of destructive modern techniques in the 1970s to early 1990s, including explosives, a similar pattern is identifiable across The Bahamas.

The discovery of ballast sites associated with significant hull remains, major collections of ordnance and artillery and abundant small finds confirms the higher level of preservation achievable under deep sands. Wrecks fitting this archaeological profile include the *Santa Clara* Tierra Firme Spanish fleet vessel lost near Memory Rock in October 1564,¹⁶¹ the Highbourne Cay wreck of a Spanish ship lost *c.* 1525 in the northern Exumas,¹⁶² and the Molasses Reef wreck off the southern Turks and Caicos Islands, a possible Portuguese vessel lost during a voyage to enslave indigenous Lucayan peoples in The Bahamas *c.* 1520.¹⁶³ The hull of the possible

slave trader the *Trouvadore*, also lost off Turks and Caicos in 1841,¹⁶⁴ confirms the environmental potential for preserving sections of wooden hulls.

The large number of ships lost in the survey zone identified in this study, and as yet unfound, provide a baseline for the region's great archaeological potential. The future of the maritime archaeology of The Bahamas is extremely bright.

Notes

¹ Gordus and Craig, 1995: 608; Craig and Richards, 2003: 19, 22; Armstrong, 2014.

² Craton and Saunders, 1999: 102.

³ Kingsley, 2022: 3.

⁴ Carey and Lea, 1823: 357.

⁵ cf. Larn and Larn, 1995.

⁶ <https://historicengland.org.uk/advice/heritage-at-risk/protected-wreck-sites-at-risk>. Accessed 3.10.23.

⁷ The Australian National Shipwrecks Database: <https://researchdata.edu.au/national-ship->

Fig. 35. Gigi Allen discovers an emerald, contraband smuggled on the *Maravillas* in 1656. Photo: © Allen Exploration.



wreck-database/689517. Accessed 3.10.23.

⁸ DRASSM. *Explore, Protect, Publicise and Study Humanity's Drowned History* (Ministère de la Culture), 4.

⁹ Coast Survey's Automated Wreck and Obstruction Information System (AWOIS): <https://nauticalcharts.noaa.gov/data/wrecks-and-obstructions.html>. Accessed 3.10.23.

¹⁰ From a sample size of 133 vessels whose functions is reported.

¹¹ *Hunt's Merchants' Magazine and Commercial Review* (January 1861), 54.

¹² These statistics exclude the 39 ships whose destinations are unknown.

¹³ The reasons for ship losses exclude the body of 64 unknown causes.

¹⁴ *Relación del... Doctor don Diego Portichuelo de Rivadeneira*, 1657.

¹⁵ *A Map of the West-Indies or the Islands of America in the North Sea; with ye Adjacent Countries; Explaining What Belongs to Spain, England, France, Holland &c. also ye Trade Winds, and ye Several Tracts Made by ye Galeons and Flota from Place to Place. According to ye Newest and Most Exact Observations, by Herman Moll, Geographer, c. 1720.*

¹⁶ Malcom, 2017: 329.

¹⁷ *Essex Register*, October 26, 1807: 5.

¹⁸ *Virginia Patriot*, February 19, 1817: 3.

¹⁹ Marx, 1971.

²⁰ *Sailing Directions for the West Indies, Volume I*, 1958: 119, 120b.

²¹ *Sailing Directions for the West Indies, Volume I*: note 10.

²² Malcom, *A Survey of Cay Sal Bank...*: https://www.academia.edu/38537274/A_Survey_of_Cay_Sal_Bank_the_Bahamas_Florida_and_the_Florida_Keys_1595. Accessed 29.3.23.

²³ Jan. Jansson, *Insulae Americanae in Oceano Septentrionali, cum Terris Adiacentibus* (Amsterdam 1638).

²⁴ J. van Loon, *Dutch Map of Caribbean and West Indies showing New Netherland, Virginia, Honduras and Cuba* (1661).

²⁵ Cornelius Danckerts, *Insulae Americanae, Nempe: Cuba, Hispaniola, Jamaica, Pto Rico, Lucania, Antillae vulgo Caribae, Barlo - Et Sotto - Vento. Etc.* (1696).

²⁶ Emanuel Bowen, *An Accurate Map of North America: Describing and Distinguishing the British and Spanish Dominions on this Great Continent: According to the Definitive Treaty Concluded at Paris 10th Feby. 1763: also all the West India Islands Belonging to, and Possessed by the Several European Princes and States* (London, 1772).

²⁷ Gerard van Keulen, *A New and Correct Chart of the Coast of East Florida, and Part of West Florida and Gulf of Mexico, Gulf of Florida or Cannel of Bahama, Bahama Islands or Lucayos, Bahama Banks and Martyrs, with the Soundings, Roks, Banks, Currents, Shoals & Nautical Remarks, Composed from a Great Number of New Actual Surveys and other Original Materials, Regulated and Corrected by Astronomical Observations* (1784).

²⁸ Louis Delarochette, *A Map of North America and the West Indies* (London, 1795).

²⁹ *The Bahama Banks and Gulf of Florida by Edmund Blunt Hydrographer... 1833. Additions to 1834* (New York, 1834).

³⁰ *Sailing Directions for the West Indies, Volume I*, 1958: 119.

³¹ AGI Contratacion 2604; Santa Barbara Registry, 1766.

³² Thomas Jefferys, *The Peninsula and Gulf of Florida, or New Bahama Channel: with the Bahama Island* (London, 1794).

³³ *A Chart of the Gulf of Florida or New Bahama Channel, Commonly called the Gulf Passage, between Florida, the Isle of Cuba, & the Bahama Islandes: From the Journals, Observations and Draughts of Mr. Chas. Roberts, Master of the Rl. Navy, Compared with the Surveys of Mr. George Gauld &ca* (London, 1794).

³⁴ Blunt, *The Bahama Banks and Gulf of Florida...*, 1834.

³⁵ James Imray's *1868 Chart of the Gulf of Mexico and Windward Passages Including the Islands of Cuba, Haiti, Jamaica, Puerto Rico and the Bahamas. Compiled Principally from the Surveys made by order of the British, Spanish and United States Governments* (London, 1868).

³⁶ *Sailing Directions for the West Indies, Volume I*, 1958: 118.

³⁷ *Sailing Directions for the West Indies, Volume I*, 1958: 118.

³⁸ Gerard van Keulen, *Eene Verzameling van Nieuwe Aee-kaarten van Noord-America in het Groot Beginnende van Kaap Charles, of de Golf van St. Laurens, tot aan de Golf van Mexico* (1784).

³⁹ *The Naval Chronicle for 1817*, 64.

⁴⁰ *Sailing Directions for the West Indies, Volume I*, 1958: 120b.

⁴¹ Jeffreys, *The Peninsula and Gulf of Florida, or New Bahama Channel* (1771).

⁴² van Keulen, *A New and Correct Chart of the Coast of East Florida...*, 1795.

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- ⁵² Toomey *et al.*, 2013: 31-41.
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- ⁵⁴ Kornicker, 1963: 19, 22, 23.
- ⁵⁵ Rankey and Reeder, 2012: 545.
- ⁵⁶ Toomey *et al.*, 2013: 32.
- ⁵⁷ Heath and Mullins, 1984: 199-208.
- ⁵⁸ Hine *et al.*, 1981.
- ⁵⁹ Rankey and Reeder, 2012: 538.
- ⁶⁰ Peterson, 2014.
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- ⁶³ *The Royal Gazette*, April 4, 1818: 3.
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- ⁶⁵ *Bahama Herald*, January 15, 1851: 2.
- ⁶⁶ *Boston Daily Advertiser*, February 3, 1827: 2.
- ⁶⁷ *Boston Shipping List*, January 15, 1851: 1.
- ⁶⁸ *Nassau Guardian*, October 14, 1908: 2.
- ⁶⁹ *AGI Santo Domingo*, 166.
- ⁷⁰ *AGI Contaduria* 1155, Diario, Page 65: Carta 771.
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- ⁷² Karraker, 1932: 731-52.
- ⁷³ Dawson, 2019: 53.
- ⁷⁴ *The American Universal Geography*, 1812: 645.
- ⁷⁵ Wright, 1915: 635, 636, 639, 640-41.
- ⁷⁶ *Hunt's Merchants' Magazine and Commercial Review* (January 1861), 54.
- ⁷⁷ *Hunt's Merchants' Magazine and Commercial Review* (January 1861), 53.
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- ⁸³ Wright, 1915: 632.
- ⁸⁴ *The Royal Gazette*, Bermuda, March 14, 1876.
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- ¹²⁴ Chaplin, 1991: 196.

- ¹²⁵ Redard, 1985: 85.
- ¹²⁶ Marler, 2008: 247.
- ¹²⁷ Owsley, 1929: 372.
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¹⁶² Smith *et al.*, 1985: 63-72; <https://shiplib.org/index.php/shipwrecks/iberian-shipwrecks/spanish-and-the-new-world/highbourne-cay-shipwreck-c-1520>. Accessed 3.18.23.

¹⁶³ Keith *et al.*, 1984: 45-63; <https://shiplib.org/index.php/shipwrecks/iberian-shipwrecks/spanish-and-the-new-world/molasses-reef-shipwreck-c-1520>. Accessed 3.18.23.

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