



Blake Plateau: Cultural Connections and the National Significance of an Offshore Maritime Cultural Landscape

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Accepted: 6 November 2024 / Published online: 22 November 2024
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Abstract

The Blake Plateau and the adjacent waters and sea beds of the U.S. continental shelf and Blake Ridge are a long-standing water highway, a place of significant events and common marine activities from centuries past to the present. It has scientific significance as well as cultural meaning, especially within the context of the Gullah/Geechee people of the region whose ancestors were brought against their will in the Middle Passage voyages of the transatlantic slave trade. The known location of some deep water shipwrecks, it is the likely site of many others, as well as possessing significant cultural values that make it worthy of consideration as a marine protected area.

Keywords Gulf stream · Blake plateau · Blake ridge · Gullah/Geechee people · Middle passage · Shipwrecks · Maritime cultural landscapes

This article benefitted from research done by authors Delgado and Brennan for the Bureau of Ocean Energy Management that assessed the maritime history and archaeology of the Gulf of Mexico in the nineteenth century. We note that we drew upon this research, as well as our previously published articles in the *Journal of Maritime Archaeology*, specifically the special issue, An “American Mediterranean:” The Maritime Archaeology of the Gulf of Mexico Region in the Nineteenth Century,” (*JMA* Volume 18, No. 3, September 2023), and utilized some of our text, after editing and rewording, that appeared in the study, as well as in the published articles in the issue as the research was pertinent to the focus of this article. We note this here rather than to cite our own work, which is included in the sources for this article. This article also discusses four shipwrecks which were the subject of commercial sale of artifacts. They were cited as they are the majority of the physically verified wrecks that rest within the vicinity of the Blake Plateau and Blake Ridge. Our inclusion of these sites and the citation of the published sources does not endorse, nor does it condone the sale of shipwreck artifacts.

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Introduction

The Blake Plateau is a carbonate formation approximately 130,000 km² in an area that sits off the edge of the continental shelf on the southern Atlantic coast of the United States, stretching some 1100 km from the shoreline of North Carolina to Florida (Fig. 1). The continental shelf is a wide, flat and shallow feature that starts at shore and drops to an average

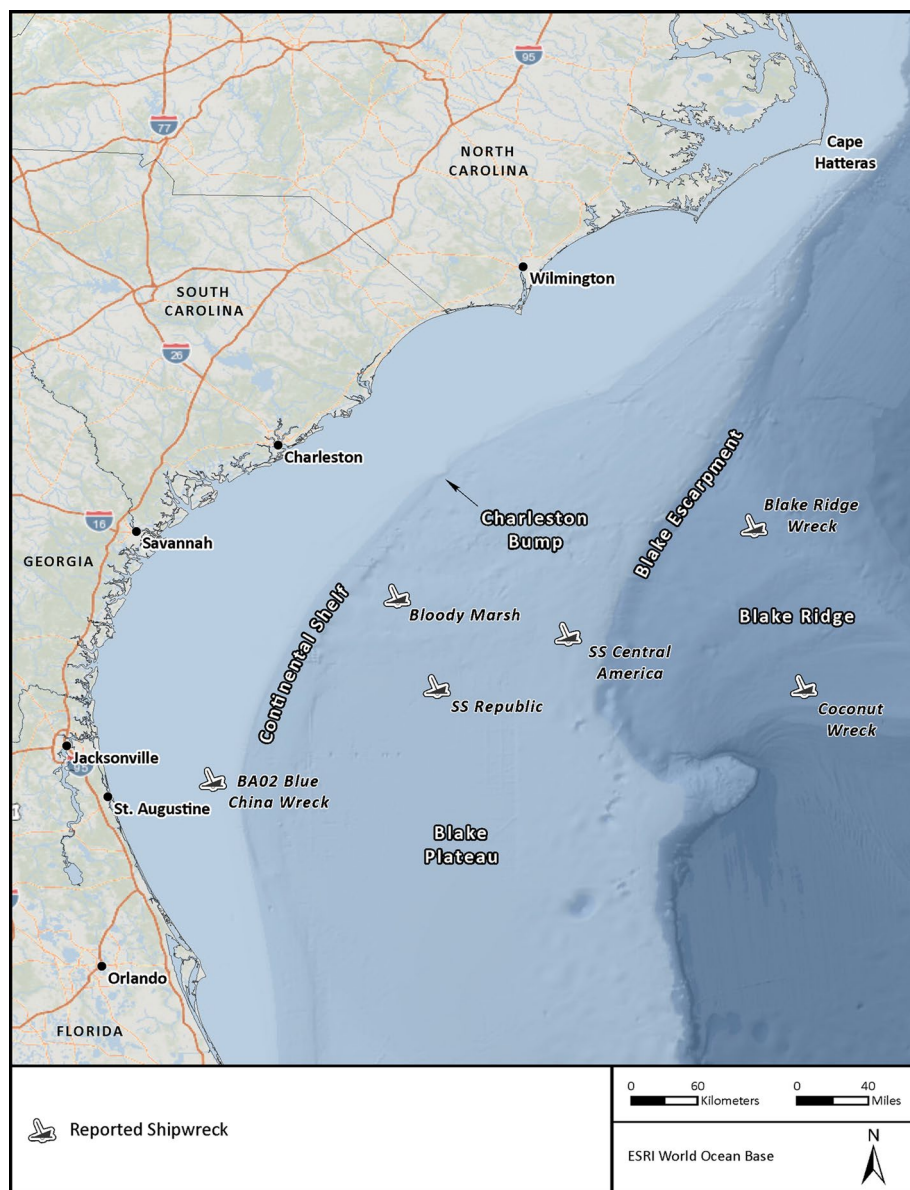


Fig. 1 Map of the Blake Plateau region with associated bathymetric features and known shipwreck sites

depth of 100 m when it terminates 145 km from the shore. At 145 km, the shelf rapidly slopes to 170 km offshore to 500 m deep. At the base of the slope that marks the beginning of the Blake Plateau, it is approximately 500 to 1000 m deep when the shelf drops off at 375 km from shore. The edge of the plateau, the Blake Escarpment, drops into the deep ocean basin of the Atlantic, some 5000 m, but it is interrupted by Blake Ridge. The Charleston Bump, another subsea feature, rises off the plateau. This feature impedes the flow of the Gulf Stream.

The surface of the Atlantic Ocean is defined by the Gulf Stream's currents, which sweep northward after exiting the Gulf of Mexico, passing the coast of Florida, Georgia, South Carolina and North Carolina. Well known to mariners since the early sixteenth century, the Gulf Stream's influence brought more than mariners who utilized it as a marine highway. It was also a region of the ocean exploited for its rich and diverse marine resources.

The ocean is a flat, featureless, and transient surface upon which people have acted but have left little trace. Instead, human actions on the surface of maritime landscapes are offset vertically and imprinted on the seabed below (Delgado et al. 2018). Such areas of maritime impacts can be lines drawn on charts, place names, isolated shipwreck sites, or expansive yet connected landscapes, such as sea battles and convoy routes of World War II which left thousands of shipwrecks and aircraft wrecked on the seabed beneath the battlefields upon which they fought. As noted, the Blake Plateau sits immediately offshore beneath a maritime highway along the Atlantic coast that dates back centuries. That highway included seafarers, and later vessels of colonial explorers, companies, and in time, the naval and merchant ships of modern nations and empires of the nineteenth and twentieth centuries.

This paper seeks to compliment efforts to summarize information on the exceptional natural significance of the Blake Plateau by assessing the known and suspected maritime cultural resources of the region. The approach taken in this assessment employs the maritime cultural landscape theoretical perspective (MCL) and follows similar studies focused on various areas in the United States (Barr 2013), a larger area off Hawai'i (Van Tilburg and Delgado 2017), the Salas y Gomez and Nazca ridges and the Emperor Seamounts (Delgado et al. 2022, 2024), and also draws on observations made in regard to the need for cultural sensitivity to "intangible" cultural sites with spiritual meaning (Turner et al. 2020) and deep-water shipwreck sites with known or suspected cultural connections and meaning (Delgado et al. 2023; 2023a and 2023b, Delgado and Brennan 2023, and Delgado 2024).

The MCL, initially envisioned by Christer Westerdahl as an archaeological concept spanning land and sea (Westerdahl 1992), has expanded into a useful tool for describing distinct geographical areas of associated natural and cultural features. The utility of this approach for management has seen its adoption by the Marine Protected Area Center of the United States National Oceanic and Atmospheric Administration (NOAA) in 2011, as a means of examining ways in which cultural and environmental processes overlap and influence one another. The intellectual concept of cultural landscapes has been established for nearly a century, but its application to the management of marine resources is new.

Cultural landscapes identify combinations of human activity and natural areas and resources that have left identifiable cultural and ecological patterns. Employing this perspective, the very nature and natural resources of the study area also have cultural contexts as defined by human activity, even when those activities were as transitory as an ocean voyage. While seemingly "uncharted," that does not mean this is an unknown area devoid of human interaction and understanding. What follows is a focused, comprehensive overview of the maritime cultural contexts of the Blake Plateau and surrounding deep-water reefs and features, also defined by the Gulf Stream, and offshore of the mainland from the

Capes of Virginia to the Gullah/Geechee Nation. These include the role of the Gulf Stream as a maritime “highway” used in historic times by various nations, and as a key route for American trade and commerce from the Colonial era to the present.

These voyages led to a variety of names, bestowed by different cultures and in different languages, to the ocean features, as well as an emerging understanding of the currents and winds of this portion of the planet. These voyages also led to the rise of regional and international trade networks. The use of these waters continued after the period of European exploration and colonization, and expanded in the post-colonial era as the emerging global economy led to voyages in which this section of ocean was a highway for the transportation of various commodities; this included the Middle Passage and the forced migration of Africans captured and brought to the Americas for the purposes of enslavement. There is a profound aspect of this context that relates to spiritual belief.

Unto this day, the native Gullah/Geechee Nation that resides on the Sea Islands continue to not only go to the ocean to spiritually and mentally rejuvenate, they also go there to honor their ancestors whose spirits continue to surround them especially when they venture out into the ocean waters or traverse through it by boat. There are annual ceremonies and rituals held on the Atlantic Coast at which offerings to the ancestors are made and thanks is given to God for being the living example of true survival given that those that stand on the shores are the descendants of the people that did not survive the entire journey through the Middle Passage or the “Maafa” as this horrific journey is often called.

The overview also includes known or suspected shipwrecks that are some of the vessels on which the “Black cargo,” as the Africans were often called, were dragged onto and chained down. Many other shipwrecks were part of other aspects of the seafaring trade. The concept of the deep-water environment as a potentially large assemblage of yet undiscovered shipwrecks is illuminated here. The overview also includes the setting as part of the larger battlefield of the WWII Battle of the Atlantic, and the number of merchant vessels lost to German U-boat attacks. This article, as an overview, also addresses the maritime links to the coastal ports, such as the major centers of Wilmington, Charleston, Savannah, and St. Augustine. It also addresses the importance of the region in trade and as fishing grounds actively worked by enslaved and free blacks through 1865, and in particular by the Gullah/Geechee. Finally, this overview connects the various contexts noted in the narrative to events and aspects identified as being of national significance as defined by the U.S. National Historic Preservation Act. This article also points out key aspects that outline this region as a place of national significance which speaks to the question of eligibility for the National Register of Historic Places, as the National Register is the national standard in the United States and its waters for determining historical and archaeological significance, a key factor in preservation planning.

The Setting: Blake Plateau, the Gulf Stream and Maritime Trade, 1513–1860

The indigenous peoples of the Americas were familiar with the sea and its resources. Early migrations of people during the last great Ice Age are believed to have followed the coastlines of the continent because they harvested the resources of tide-pools and ventured far offshore in search of marine nourishment. The ancestors of the Gule people of Georgia inhabited a different world 15,000 years ago—the ocean was lower, and as much as 80 miles of the Continental Shelf was exposed land with its own coastal waterways. This

lasted until the gradual end of the Ice Age led to rising sea levels as the ice began melting roughly 18,000 years ago and ended around 5,000 years ago; the “modern” coast of Georgia and surrounding area then stabilized, and the coast’s barrier islands were formed (Thomas 1993:8).

The ancestors of the region’s earliest settlers, the Guale, adapted to this new coastline and were the first to meet and interact with European explorers and colonizers. Guale communities were in estuarine environments with a heavy reliance on a marine diet. After European contact, their populations had reduced dramatically, and they gradually retreated from the coast and settled further upland on riverbanks where they harvested agriculture from their own fields and also subsisted on fish and game (Thomas 1993: 9–10, Jones 1873, Swanton 1922, 1946, Larson 1969, 1978, 1980, Larsen 1982, Jones 1978, Crook 1986). The indigenous people of the coast made and used watercraft; archaeological examples of dugout canoes ranging (based on Carbon-14 dating) from riverine environments have been discovered, documented, and curated (Rich et al. 2022). Historical accounts from the first colonial contacts and into the early American period indicate a continued use of canoes and other craft in the area; however, it is unknown how far offshore these craft ventured (Harris 2014).

The Gulf Stream was first observed by Spanish explorer Juan Ponce de León and his pilot, Antonio de Alaminos, in April 1513, during his expedition to the coast of Florida (Marmer 1929:457; Scisco 1913: 725; Peck 1992). This current became an important maritime link for Spain’s overseas commerce as annual fleets sailing from the Americas with the commodities taken from the New World met in Havana, and from there sailed past the tip of Florida, through the Florida Strait past the Bahamas, and then headed up the coast of North America, using the Gulf Stream, until they tacked eastward above Cape Hatteras, where the Labrador Current crosses the Gulf Stream. Ships rode the Labrador to head for the Azores and then Spain. Cape Hatteras was known to Spanish mariners as “Cabo San Juan.”

While Spanish knowledge of the Gulf Stream was a state secret, it was a secret also known to Spain’s rivals, France, Holland, and England. The patterns of settlement and colonial rivalry, as well as privateering and piracy, played out along the Gulf Stream’s shoreline edge in response to the pattern of Spanish maritime activity. Initial French settlements on the route near the site of modern Jacksonville, Florida and in South Carolina met with a Spanish military response in 1565 and the establishment of a permanent settlement, San Agustín (St. Augustine) that same year. Undeterred by Spain’s decisive end to French ambitions in Florida, the English sought bases further north. These, as well as the 1609 settlement at Bermuda, known to the English as the Somers Islands, were also viewed as ideal ports for privateering.

The lost 1584–1590 English settlement of the Roanoke Colony in what is now Virginia, while a failure, was followed by what would be a permanent settlement at Jamestown in 1607. The arrival of the English introduced more ships, as trade grew between England and its new, struggling colony, privateers, and pirates arrived, and in time, so did additional English settlements. Charleston was founded in 1670, Norfolk in 1705, Wilmington in 1732, and Savannah in 1733. English settlements in Caribbean colonies, including the Bahamas began in 1648, and other islands in the Caribbean, ultimately became the center of plantation-based economies. They were linked to their sister colonies in North America by the Gulf Stream. That marine highway, crossing directly over the Blake Plateau, became the favored route for colonial trade in the seventeenth and eighteenth centuries, and continued into the late eighteenth and nineteenth centuries as the newly independent United States. The importance of the Gulf Stream was such that Benjamin Franklin, working with

the accounts of mariners, particularly Timothy Folger, commissioned the first known chart of the Gulf Stream in 1769 (Bache 1936; De Vorsey 1976; Richardson 1980). The publication of this first chart was of tremendous significance, as it was itself a revolutionary act, that opened the maritime highway that was the Gulf Stream to wider use by mariners (Chaplin 2008) (Fig. 2).

Following the American Revolution and the establishment of the United States, American interests in maritime commerce focused on trading its most abundant products, “raw materials and foodstuffs, which it was necessary to exchange for the manufactured consumer and capital goods of the world, especially those of Great Britain” (Fairburn 1955:918). From 1789 to 1830, this was the dominant factor in American maritime trade and commerce, as the United States also turned to its abundant forests for the timber to build merchant ships to carry those goods. This coincided with the gradual coalescing of the former colonies into a more united group of states economically linked by trade to each other, more by sea via coastal trade than internally until the development of canals, first, followed by railroads in the decades to come.

The West Indies and especially Cuba fit into the patterns of coastal trade thanks to the Gulf Stream and the proximity of the islands to the North American mainland. That trade, beginning in the colonial period, saw New England, Mid-Atlantic and Southern colonial merchants trading with their counterparts in the British islands, just as Spanish and French



Fig. 2 Benjamin Franklin's Published Chart of the Gulf Stream, 1786, Philadelphia, Pennsylvania, (<https://digital.library.unt.edu/ark:/67531/metadc29422/>; accessed June 5, 2024), University of North Texas Libraries, UNT Digital Library, <https://digital.library.unt.edu>; crediting UNT Libraries Special Collections

colonists connected with islands that formed part of their respective colonial empires. It expanded in the early nineteenth century to Cuba, especially when Spanish officials opened certain Cuban ports, notably Havana, to foreign trade in 1818 (Salvucci 1996:649). That trade expanded to other Cuban ports within a few years, notably Santiago de Cuba, Matanzas, Nuevitas, Trinidad, and Baracoa (Salvucci 1996: 650; also see Sluyter et al. 2017). Americans shipped agricultural products, lumber, ice, shoes, and other manufactured goods in exchange for Cuban sugar, coffee, tobacco, and specie among other commodities (Kistler et al. 1984; Salvucci 1996:652).

Certain commodities were vital trade items. Sugar in the eighteenth century was the “foundation of West Indian prosperity...the most sought-after commodity of the period,” and “the largest single English import and the most valuable item in French overseas trade” (Tomich 2016:51). American merchants were excluded from this market after the American Revolution, the subsequent Quasi-War with France and the War of 1812. Subsequent treaties for “reciprocal trade” that were not favorable to American ships shut American traders out of the British West Indies. In response, they joined an evolving Gulf of Mexico trade in the late teens and increased their role steadily through the 1830s and 1840s (Fairburn 1955:928–933). The Louisiana Purchase and the subsequent development of the Gulf into an “American Mediterranean” in the early to mid-nineteenth century, and the rise of the port of New Orleans as a global entrepot open to regional and international trade also relied heavily on the Gulf Stream as its principal highway.

As the port of New Orleans expanded under American rule, it was notably linked by slavery, “the very core of the colonial machine in New World societies” to other economies (Guenin-Lelle 2020:39). In the early American period, Louisiana surpassed Saint-Dominique as the major sugar producer in the western hemisphere, and in time was joined and then surpassed by the creation of an extensive cotton industry in the states bordering the Gulf and the development of extensive trade in that cotton to American and European markets (Winston 1924:207). With this, “New Orleans became the most important city in the Antebellum South” (Guenin-Lelle 2020:41). New Orleans was not alone in gaining significance because of its status as a port linked to others by the Gulf Stream and a growing national American economic system. By 1820, the seven largest towns in the American South “were seaports where vessels engaged in the foreign and coasting trade” that were connected by river systems to subsidiary ports and portages, which exchanged goods from the interior for those of the exterior, and the most important individuals in those communities were those who controlled or actively participated in that trade (Sydnor 1948:20).

The common factor in profit was not only capacity to carry goods to market, but also the use of enslaved labor, and a merchant class who operated at “a cautious removal from production processes, instead concerning themselves mainly with their ability to exploit differences in commodity values in geographically separated markets” (Marler 2013:2; also see Hobsbawm 1979 and Woodman 1968). With the expansion of the transatlantic slave trade in the eighteenth century, the greater Caribbean had become a region of connected slave societies. Although plantations commanded significant demographic and economic resources, port cities also housed sizable populations (the majority of whom were slaves) and played crucial economic roles. In a world of maritime transportation and export-driven economies, they connected scattered territories affected by racial slavery (Vidal 2019:8).

Between 1830 and 1840, the population of New Orleans grew to at least one hundred thousand and the port became the fourth largest city in the United States after Baltimore, Philadelphia and New York (Winston 1924:201). In that same period, “New Orleans had become the leading export city of the United States and one of the leading ports of the world,” handling 401,500 tons of freight valued at 43.5 million dollars in 1836–1837

(Winston 1924:203). That port was described as a levee “lined with its forests of masts and sooty cylinders—the products of a foreign and domestic world crowding our warehouses and shops” (as cited in Winston 1924:203–204). That trade for the most part utilized the Gulf Stream as its principal route, heading north to link with major ports that stretched from Charleston, Savannah, Norfolk, Philadelphia, New York, and Boston to Halifax, as well as other smaller ports.

The economy of the Gulf Stream was now the basis of American wealth, and much of it was centered on commodities trade, starting with cotton. The growth of the cotton industry has been argued by historians as defined both by the booming “cotton economy” where foreign demand for cheap American cotton “was the prime mover with respect to general growth, growth in per capita income, and industrialization (Herbst 1975:264, citing North 1961), and by what economic historians term ‘interregional commodity trade flows,’ as interregional trade in the United States was also a key factor in assessing antebellum economic growth in America (Herbst 1975).

A key early study of coastwise interregional trade assessed this “largest artery of interregional commerce” from 1824 to 1839, a “period of rising aggregate and per capita income as well as the period of initial changes in the structure of the economy that marked the beginning of the process of industrialization in the North” (Herbst 1975:264). Basically, the burgeoning trade of commodities from the South, and specifically the Gulf, “created demands for domestic manufactures from the North... by producing on a larger scale, achieved economies of scale and became more competitive with foreign imports” (Herbst 1975:265).

Herbst (1975) assessed this by analyzing specific years (1 October 1823—30 September 1823/1824, 1830/1831, and 1838/1839) during which he estimated the total number of cargo vessels going from the North to the South using a formula “to multiply them by the average cargo value per vessel” based on sampling records from Philadelphia, Savannah, Mobile and New Orleans (Herbst 1975:265). The data indicated an annual rate of growth of 7.3% per year, “with most of the growth coming in the 1831 to 1839 period, but with the overall value of that trade more than doubling in the 1830s, from \$26,889,309 in 1831 to \$56,895,377 (Herbst 1975:266). In terms of vessel movements, this means increased numbers of vessels, but not necessarily larger vessels in terms of tonnage carried. Throughout the two decades, “the largest number of cargo vessels by type, engaged in the coastwise trade from North to South, were schooners” (Herbst 1975:266).

The yearly cycle of the cotton trade was heaviest from October to March, “the time of the cotton harvest, and presumably when vessels to transport cotton from the South were most needed,” which to Herbst suggested “the possibility of backhaul rates from the North on shipping flows connected with transporting cotton” (Herbst 1975:266). Another observation was the growth of traffic to and from Mobile, Alabama in the 1830s (Herbst 1975:267). While Herbst established that market was not solely created or fed by the cotton trade, what is clear is that with the existing ports along the Gulf Stream, and with the addition of the Gulf and its ports, the profits arising from the trade had created opportunities that lured not only investors but settlers, and as the population and per capital wealth grew, so too did the demand for manufactured goods from the industrial North. This pattern of maritime exchange in the coastwise trade persisted through to the Civil War when it was disrupted.

The American maritime economy of the nineteenth century ultimately thrived not only because of the rise of cotton but also because of West Indies trade, which had seen New England merchants shipping lumber, fish, potatoes, pork, wheat, apples and other produce to Caribbean markets in exchange for molasses, rum, sugar and coffee, which grew

problematic after American independence. Economic competition and restrictive tariffs from colonial powers that retained their Caribbean colonies, the downturn in the Haitian sugar market, and piracy, “the worst between 1818 and 1825,” led to poor profits, and those problems continued into the 1830s (Coro 1972:32–33; McDonald 2005:463; Rowe 1948:106–110).

Spain and its colonies in the Caribbean and Latin America welcomed American trade, however, and after 1806, Spain became the United States’ “dominant coffee supplier” through its Caribbean and Latin American colonies (McDonald 2005:466). Cuba was of increased interest to American traders as it was still wide open to the transatlantic slave trade after the United States closed its ports to slave ships in 1808. In 1809, when Spain opened Havana, Trinidad and Matanzas to American trade, Cuba was “thrown open to the vessels of all nations and the speculative industry of the world” and became “one of the major new opportunities for American merchants” (Marques 2012:242).

What followed was a “sophisticated structure connecting northern credit, rum and cotton production, long-distance maritime trade (including its slave variant), and slave plantations in Cuba producing sugar and coffee for the world market” (Marques 2012:254). Overtly, this was reflected in key commodities. Much of the coffee trade began to shift from America’s chief coffee importing port of Philadelphia to New Orleans, but New England traders still continued an active trade. This was especially the case for Havana, which was also a source of sugar and tobacco provided at competitive rates as a slave-based economic system that served American interests.

The regular use of the Gulf Stream as a marine highway led to the establishment of regular “lines” or fleets of ships under common ownership that sailed as “packets,” on regularly scheduled voyages. While larger businesses and consortiums owned and operated larger fleets, individual merchants and their investors formed the backbone of an active trade that employed hundreds of vessels. “Sailing packet-lines were insufficient to fill” the demands of the West Indies, Southern and Gulf trades (Morison 1979:298). In Bath, Maine, the merchants “long engaged in this profitable business...began with brigs and shifted to larger ships and barks as the trade expanded” (Baker 1973:247). “A number of these were transient or tramp packets; and between 1820 and 1840, American entrepreneurs created some five hundred coastal packet lines” (Cutler 1961: xiii). They carried goods not sought by European markets, but that the South needed, and thus they sailed south and then into the Gulf “loaded with New England lumber and sometimes European goods” (Baker 1973:247). Even the small vessels would load cotton or other southern products and head across the Atlantic to Europe, and then returned home “with manufactured goods from Great Britain and the Continent, coal and other raw materials; iron-ware and salt were common cargoes to Bath” (Baker 1973:247).

The United States’ single greatest trade commodity was cotton. By 1835, over half of American cotton was shipped out of the Gulf of Mexico’s two great cotton ports, New Orleans and Mobile. Those ships were bound to New York, but also to the European ports of Liverpool or Le Havre, France (Fairburn 1955:1155). Four to five hundred pound tightly bound packages of cotton, known as “bales,” had been pressed into rectangular shape for ease of shipment (Britton 1992:26–27). This trade boosted maritime activity along the Gulf Stream through the establishment of regular packet routes from New Orleans and Mobile after 1821 (Fairburn 1955:1156–1157). “All over the United States, cotton cargos stimulated a tremendous boom between 1830 and 1860, affecting shipbuilding and general commerce—both foreign and coastwise.” By 1852, this boom resulted in nearly half of the registered packet fleet working the foreign portion of the cotton trade (Coro 1972:21).

Between 1820 and 1860, with the trade starting in New York with the 1818 establishment of the “Black Ball Line,” American packets, “the first sailing liners,” grew to consist of a fleet of some three hundred vessels that ran between New York and European ports, as well as to the South to ports in the “cotton triangle” such as Charleston, Savannah, Mobile and New Orleans (Albion 1939:95–121; Bauer 1988:73–74; also see Gould 2019).). Between 1818 and 1857, American shipbuilders turned out 117 coastal packets for the Southern cotton trade, most of them built in New York (Fairburn 1955:1158). In all, thousands of coastal packet voyages between the Gulf and New York made the Gulf Stream one of the most traveled and significant coastal shipping lines in American history.

The triangular trade of cotton and other commodities by packets using the Gulf Stream made it “one of the most lucrative routes for Massachusetts vessels between 1830 and 1860; in part it was a coasting trade...Year by year the wealthy Cotton Belt wore out more boots and shoes, purchased more cottons [clothing] for her slaves used more Quincy granite in her public buildings, and consumed more Fresh Pond ice in her mint juleps,” while New England mills eagerly sought raw southern cotton (Morison 1979:298). The cotton trade by packets seized American control of transatlantic trade. Simply stated, Britain’s mills depended on the increasing production of Southern plantations. The transatlantic packet trade also allowed New York to dominate transatlantic and coastal because of cotton trade. By 1824, American packet service had blossomed and twelve lines freighted cotton, manufactured goods and passengers. Three transatlantic lines ran to Liverpool, two to London, three to Le Havre, and four to New York coastal lines: the New Orleans (Old), “three brigs of from 244 to 254 tons in service in 1821, Charleston Ship Line (five ships), Savannah Line (five ships), second New Orleans Line, Holmes, three ships from 276 to 309 tons and a 195-ton brig in 1824” (Fairburn 1955:1127) (Fig. 3).

Between the late 1820s and the 1830s, the Mobile Line ran three ships with the Louisiana & New York Line introducing five new, large ships, as did the New York and New Orleans Line at the end of that decade (Fairburn 1955:1127). There were also “less important and relatively inferior “brig” or “brig and schooner” lines between New York and Charleston, Savannah, New Orleans, and Mobile, as well as others to Florida, the Gulf ports being Apalachicola, St. Joseph, and St. Marks (Fairburn 1955:1127–1128). The packets running to and from these ports also carried enslaved people. The packets of the firm of N & J Dick and Company, in particular, was “prosperous and with unimpeachable status in the overlapping worlds of banking, cotton, land, and slaves” (Rothman 2021:227). Thus, packets were not only key to cotton commerce and other agricultural and industrial products; they were also complicit in the crime of chattel slavery that perpetuated human bondage in America. They also were the means by which large numbers of Europeans came to the United States, as immigrants, sailing not only to New York, Boston or other Atlantic ports, but also to New Orleans and Mobile.

The new technology of steam was first introduced into southern cotton port service by steam packets in the 1820s and 30 s by Charles Morgan and others, and quickly entered into competition. Morgan was the dominant figure in establishing ocean steam service that linked Gulf coastal ports as well as oceanic trade to the Atlantic seaboard. After forming the New and Charleston Steam Packet Company in 1833, and winning the U.S. Government mail contract, Morgan expanded his business into the Southern Steam Packet Company and into Florida ports, and then into the Gulf, commencing with business in Texas. Morgan was no stranger to maritime commerce; he and one of his business partners, John Haggerty, had invested in the sailing packet trade since 1819 (Baughman 1968:248–249; Ridgely-Nevitt 1981:75). Morgan was the part-owner of



Fig. 3 Charleston, c. 1838. Engraving by William James Bennet from a painting by G. Cooke. Library of Congress, pga 00199/hdl.loc.gov/loc.pnp/pga.00199

eighteen regularly scheduled sailing packets from 1819 to 1837, and part owner of seventeen “tramp” sailers from 1825 to 1846 (Baughman 1968:248–249).

The oceangoing steam packet service served other cotton ports of the south. The Atlantic port of Charleston was linked to New York by not only SS *Robert Fulton* but also by the steam packets SS *New York* (1822–1826), SS *David Brown*, launched a decade later in 1832, *William Gibbons*, launched in 1834, SS *Columbia*, also launched in 1834, SS *Charleston*, launched in 1836, and in 1837, a new SS *New York*, and the steam packet SS *Home* (Ridgely-Nevitt 1981:74–76; Fairburn 1955:1330; Heyl 1953:293). Charleston’s rival port, Savannah, was not linked to interior markets by steam trains they had been indirectly linked with before 1835, and regular steam service did not commence until the 1840s when rice and a growing lumber trade boosted Savannah’s oceanic trade from regional ties to Florida, via steam packets, to a regular line to New York chartered in 1847 and entered service in 1848 (Delgado 1987:34–38). While steamers were opening up new avenues of coastal ocean trade, the dominant trades were transatlantic and the lines that connected to New Orleans, the principal American cotton port in trade, grew exponentially after 1830.

Morgan’s steamships benefitted from mail contracts coastwise, but also from the two transisthmian routes that extended a U.S. maritime presence into the Pacific, the Panamá and Nicaragua Routes. Morgan’s involvement in the Panamá Route focused on his 1849 investment in the Empire City Line, which consisted of just two steamers, *Crescent City* and *Empire City*, both built in New York for direct trade with New Orleans (Ridgely-Nevitt 1981:122; Baughman 1968:57). Those plans shifted with the California

gold discovery of 1848 and the announcement from the President on December 5, 1848 that the rumors of fabulous wealth to be had in California were true. The first steamer to depart the eastern seaboard to Panamá in response to the news of the California gold discovery was the newly launched U.S. Mail Steamship *Falcon*, which had returned from its maiden voyage to New Orleans via Charleston, Savannah and Havana just before the news of the gold discovery in California began the “Gold Rush” (Kemble 1943:32–34, 225; Ridgley-Nevitt 1981:108; Heyl 1967:103–104).

The opening of the Panamá and Nicaragua routes during the Gold Rush had global implications. Two major coastal and oceanic routes on both the Atlantic and Pacific coasts were linked by regular steamship service and after 1855 by a transisthmian railroad across Panamá. While aiding American commerce and development, the route benefitted Central and South American trade and commerce on both coasts, and also energized Gulf shipping, especially in New Orleans. A larger steamer, *Cherokee*, was a former New York to Savannah steam packet that, with its sister ship, SS *Tennessee*, had joined the Gold Rush when New York entrepreneurs Howland and Aspinwall bought them and, after refitting both, dispatched *Tennessee* to the Pacific for the Pacific Mail Steamship Company (Kemble 1943:219; Delgado 1987).

Harvesting the Sea

A smaller class of whalers focused on the Atlantic fishery, where the industry had begun, because “the voyages are of less duration, and less capital is therefore required in this business than the other” (Goode 1886:14). After crossing the Atlantic from New England to work off the Azores, these smaller whalers headed south to Cape Verde before crossing to work off the Brazilian coast. They then sailed north “to the eastward of the Windward Islands; thence to the Bahama Banks, Cape Hatteras, and along the coast of the United States, to home” (Goode 1886:14). However,

The smaller class of whalers seldom extend their cruises to the south of the line, but after they have visited the first two whaling grounds they usually pass to the westward toward the island of Fernando de Noronha, and thence along the South American coast until they reach the Windward Islands. They frequent the Caribbean Sea in the months of January and February, and further to the westward off the peninsula of Yucatan and Cuba in April; after which they proceed through the Gulf of Mexico to cruise off the Bahama Banks and Cape Hatteras in May. Thence they pass northward on either side of the Gulf Stream, to the eastern side of the Grand Banks (Goode 1886:15).

From the colonial era through the last decade of the nineteenth century, inshore, coastal and much of offshore whaling and fishing along the southeastern United States was done by African Americans, beginning with enslaved fishermen and continuing into the antebellum period with enslaved and some free Blacks working in the fisheries. Postbellum, the regional fishery remained dominated by African Americans, with the exception of the Minorcan population of St. Augustine, whose colonial era arrival in the later eighteenth century led to their predominant localized dominance of the fishing grounds around St. Augustine (Goode 1886) (Fig. 4).

However, African Americans also fished in and out of St. Augustine, primarily as subsistence fishermen. African Americans in the region identify as Gullah/Geechee,



Fig. 4 A timeless image of Gullah/Geechee Nation fisher, 1933. Copper plate photogravure by Doris Ulmann. Library of Congress, [cph 3b10110/hdl.loc.gov/loc.pnp/cph.3b10110](https://hdl.loc.gov/loc.pnp/cph.3b10110)

who “today trace their ancestry primarily to the enslaved Africans who were forced to live and labor in the coastal counties of South Carolina, Georgia, southern North Carolina, and northern Florida. Africans from diverse societies and environments—men, women, and children—were taken forcibly from their homes and families and sold into slavery” and created their own unique “New creole culture in the Low County and Sea Islands” (National Park Service 2005:14–15, also see Hine and Thompson 1998 and

Pollitzer 2005). The region where the Gullah/Geechee people continue to live extends from the Cape Fear River, at the border of North and South Carolina, to the St. John's River, near Jacksonville, and up to thirty miles inland (National Park Service 2005:1). This area is now the Gullah/Geechee Nation.

The expansion of this cultural group into Florida came following the Spanish edict abolishing slavery in the colonies, including Florida, and the increasing number of enslaved people who fled the English colonies, south, by land and water, to reach Florida and sanctuary, especially after 1739 and an edict granting freedom to all refugees who had fled slavery; among the resources they harvested were the waters around St. Augustine (National Park Service 2005:23–24). The advent of the British period reestablished chattel slavery in Florida, and the enslaved people of Florida continued to harvest the local waters. This point, not always documented in the historical record, was noted in early historical archaeological excavations at the Kingsley Plantation outside of Jacksonville, where Charles Fairbank's excavations revealed evidence of subsistence hunting and fishing when excavating a slave cabin site, now a refuse dump, yielded lead shot, a gunflint, a percussion cap and a lead slip-sinker weight from a fishing net (National Park Service 2005:38; also see Ascher and Fairbanks 1971, Fairbanks 1974, and Ehrenhard and Bullard 1981).

The Gullah/Geechee traditional economy that emerges from the archaeological record, therefore, is one of "farming, hunting, and small-scale marketing of subsistence products," including seafood. The role of black fishermen was as old as the advent of chattel slavery in what would become the United States where "slave fishing and boating were a deeply imbedded and important part of plantation life throughout the southern seacoast" (Cecelski 2001:19). Enslaved laborers and free blacks "labored as... fishermen... in ports and on the sounds, rivers, and creeks...as well as in parts of the Atlantic accessible from shore by fishing boats and other small craft" (Cecelski 2001:18). There was a "common black maritime culture" in the southern fishing ports of New Bern, Wilmington, Beaufort, Norfolk, Charleston and Savannah, with black sailors and watermen" who were all part of an "African American maritime heritage that has nearly been forgotten" (Cecelski 2001:19–20).

Twenty percent of the enslaved males in Charleston between 1730 and 1799 were "watermen, boatmen, fishermen," or "pilots" (Bolster 1997:155, citing Morgan 1984:199). However, current scholarship does not fully address the role of Blacks in the antebellum Florida coastal fishery. As St. Augustine was not as active a seaport, and much of the fishery was subsistence-based, with excess being sold at the city market, the percentages in antebellum St. Augustine were likely much lower – but fishing methods and culture were likely known to most in the local African American community. Primarily harvesting mullet on a seasonal basis, African Americans were also subsistence fishermen, seeking fish, shrimp, crab, and oysters.

For the African American community, fishing had also supplemented the meager rations provided to the enslaved. By the 1830s, "the growing assimilation of Minorcans took place in a relatively stagnant economic environment that provided maneuverability for African Americans, free and unfree" (Marotti 2003:20). There were free Blacks engaged in and on the water in that period. William R. Clarke, one time tavern keeper, lumbering, selling oyster shells, and near the end of his life, was a fisherman (Marotti 2003:119). After freedom, "subsistence farming and fishing were the greatest sources of table food and income" (National Park Service 2005:49). By the end of the nineteenth century, various industries including fisheries contributed to a "Golden Age" of Gullah/Geechee "economic self-sufficiency, relative freedom from outsider intrusion, and the blossoming of performing and graphic arts" (National Park Service 2005:49).

While the role of local African Americans in coastal and offshore fisheries expanded postbellum into market fishing along the entire southeastern coast, as was the case nationally, regional involvement in fishing those waters declined in the era of Jim Crow as African American fishermen and their families were segregated into roles as laborers in the fish-processing industry as it grew in the early twentieth century.

The Middle Passage

The introduction of chattel slavery in North America in the earliest years of the colonial period set into motion a maritime trade that brought over twelve and a half million Africans to the Americas, arriving in what is now the United States from the sixteenth through the nineteenth century (Eltis and Richardson 1997: 1–15). The entirety of the eastern coast, from New England to the Gulf Coast of the Deep South, was involved in the enslavement of African people, although by the nineteenth century, the epicenters of enslavement were Virginia, where it began in 1619, and South Carolina, specifically the port of Charleston. Charleston was the major market for the arrival and commodification of Black bodies in the United States. As much as forty percent of all voyages to what is now the US ended at Charleston (Eltis and Richardson 1997: 1–15, Eltis et al. 2010, 2019). The development of rice and indigo plantations in the region and high mortality rates for those brought to work in those plantations against their will played a significant role in those numbers.

The nature of the plantations also introduced a selective focus on capturing and importing people from Central and West Africa's coastal regions, where African rice farmers had worked their own fields for thousands of years. The subsequent development of cotton plantations on the coastal sea islands of the region also fed the demand for more enslaved people to work those lands. The culture that came with the more than 150,000 Africans forcibly brought to Charleston and to other South Carolina ports was the basis for the persisting, dynamic Gullah-Geechee culture of the region (Pollizer 2005; Carney 2009; Brown 2012).

The intensity of the system of enslavement in the region with its demand for people to work in those industries with high mortality rates specifically means that the Blake Plateau was an integral part of the Middle Passage's marine highway. Vessels of enslavement sailed routes across the waters of the Blake Plateau for centuries, carrying their human cargo to ports of call mainly in Wilmington, Charleston, and Savannah. These vessels of enslavement were the linchpin of the entire system of enslavement that led to the planned accumulation of wealth and capital from which emerged world markets and a foundational international capitalist system that still benefits society today (Rediker 2007: 43; Baptist 2014).

To simply acknowledge the Blake Plateau routes as ones traversed by a large number of ships carrying African captives is insufficient to gauge the significance of it in terms of human suffering. Conditions for Africans aboard slave vessels were inhumane, with most ships holding between 200 and 400 individuals (some vessels carried as many as 700 souls) in close and squalid quarters below deck. Confined spaces, lack of fresh air, inadequate nutrition, and limited opportunity for physical movement and personal hygiene led to descriptions of the slave ships as a "marketplace" for diseases, including scurvy, dysentery, and smallpox. The "cargo"—enslaved Africans—experienced unimaginable terror and violence as sailors established authority through physical, emotional, and psychological conditioning. Illness, insanity, hunger, dehydration, torture, revolt, suicide, and shipwreck

were common (Turner et al. 2020). In addition to the ordeal of the voyage for those who survived, there is also the reality of the number of lives lost and the discarding of these African bodies into the sea, where they ultimately settled and came to rest on that seabed (Brown 2008, Rediker 2007: 273–275) (Fig. 5).

The mortality rates for Middle Passage slave trade voyages were high, not counting the deaths of those held awaiting transport in barracoons in Africa, at least fifteen percent of those people captured and transported died. The estimates are between one and a half to two million people, with between six to eight thousand deaths a year in

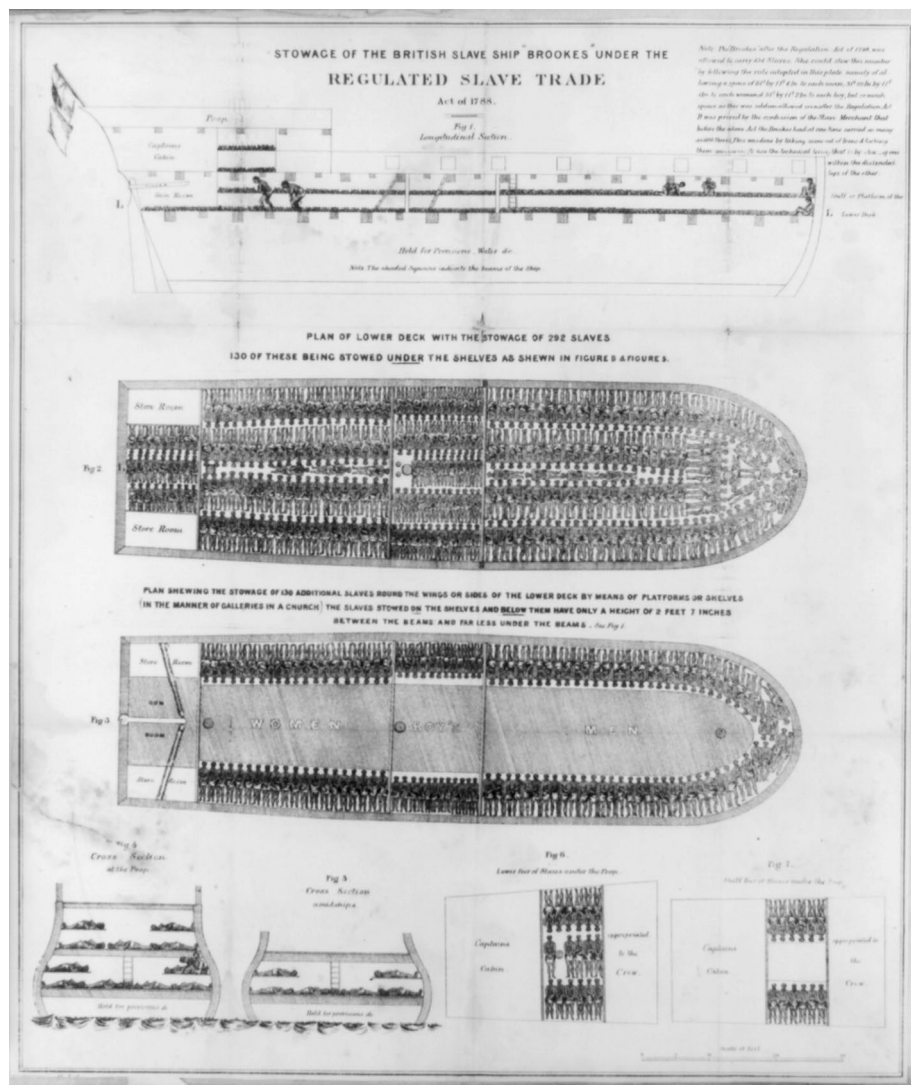


Fig. 5 “Stowage of the British slave ship “Brookes” under the Regulated Slave Trade Act of 1788,” conveys some sense of the horrific conditions on these vessels. Library of Congress, LC-USZ62-34,160 <http://hdl.loc.gov/loc.pnp/cph.3a34658>

the period from 1766 to 1800, when records of deaths are more precisely documented (Eltis and Richardson 1997: 9, Turner et al. 2020: x). These deaths and the discarding of Black bodies over the sides of ships continued throughout voyages, into the waters of the Blake Plateau and even into Charleston Harbor, where ongoing deaths on board ships that had arrived, introduced the callous practice to the city's waterfront, much to the dismay, but not moral outrage, of the local white population (McCandless 2011: 48–49).

Undoubtedly, the remains of these African people, their bones, teeth, and other material artifacts, are encrusted and concreted into the deep-water coral reefs of the Blake Plateau. This not only marks the Blake Plateau as a graveyard for these human beings but more importantly a very scared/spiritual region of the ocean for millions of their descendants who, to the present day, still epigenetically carry the trauma from the horrific experiences of their ancestors, particularly during the transit of the Middle Passage (DeGruy 2005; Mustakeem 2016, Maté 2022). The sacred waters of the Blake Plateau should be respected, protected and the victims appropriately memorialized.

The death rates for ships bound to Charleston were between nine to eighteen percent through the end of the eighteenth century, dropping to three to five percent in the nineteenth century as a result of the realization that fewer deaths, due to improved conditions on the ships, meant greater profit through the sale of more survivors (McCandless 2011: 49; McMillin 2004: 1–5, 52). Dr. Alexander Gardon of Charleston, who inspected incoming slave ships in the late eighteenth century wrote, after visiting a ship with multiple deaths, on the voyage and in the harbor, that this was one of many ships that “had many of their cargoes thrown overboard; some one-fourth, some one-third, some lost half, and I have seen some that have lost three-fourths of their slaves” (as quoted in Berkeley and Smith 1969: 129 and McCandless 2011: 48). This imparts a terrible and profound significance to these waters and seabed, as has been suggested for the entirety of the totality of the Middle Passage, but in this case specifically focused on an area within the United States' Exclusive Economic Zone (EEZ), namely the Blake Plateau.

Those victims of the slave trade who lost their lives on the Middle Passage and whose bodies were discarded into the ocean and came to rest on the seabed of the Blake Plateau make this area a literal graveyard. This goes beyond the question of physical remains of those people on that seabed:

Enslaved Africans who died in captivity on slave ships were displaced from their native land, separated from their culture, severed from home and family, and denied traditional burial. With no means to ritualize death, “death threatened the deceased with eternal alienation.” Trauma and loss at sea were emblematic of the terror of the Middle Passage, the memories of which were carried into the Americas by the many millions who survived the crossing. The Middle Passage and the loss of life suffered therein continue as cultural motifs today (Turner et al. 2020).

The discarding of bodies overboard of captured Africans who lost their lives during the Middle Passage due to illness, disease and violence was considered routine. Ship captains made attempts to collect insurance policies for their losses. However, discarding or throwing overboard Africans who were alive but sick with a contagious disease that could spread to others was also practiced. In some cases of rebellion among captured Africans, this brutal inhumane practice was used as a form of punishment and to set an example for the remaining captives (Rediker 2007). Additionally, some captured Africans committed acts of self-destruction or suicide as a form of rebellion against being enslaved and this was seen as taking control of their own humanity (Walvin 2011; Synder 2015).

It should be noted that even during the horrific Middle Passage crossing, captured Africans continued to resist their captors and fought to reclaim/retain their dignity and humanity. During the Transatlantic Era of African Enslavement, a period which the dominant narrative references as the “Transatlantic Slave Trade,” there were more than 40,000 voyages across the Middle Passage. During this transit of the Atlantic, there were literally thousands of revolts on these vessels of enslavement by captured Africans against being forcibly enslaved. Although some of these revolts were successful, many were not, and the response of the enslavers were brutal and savage (Richardson 2001: 69–92). While many memorials and descendants remember and recognize the Middle Passage and its traumas, recognition of “the area where those who lost their lives at sea ultimately came to rest—the Atlantic seabed—has not yet been recognized internationally” (Turner et al. 2020).

In 2020, for the first time, a proposal was made to note that the seabed of the Middle Passage is an intangible graveyard. This is noted in spiritual belief, and the importance of acknowledging cultural identity as expressed through intangible heritage is the means by which cultural and spiritual heritage underwater can contribute to a better understanding of the multiple meanings and social value of heritage. Recognition of the sea as a place where the dead reside was an aspect of the 2010 designation of Papahānaumokuākea Marine National Monument in U.S. waters. It is a sacred landscape that in Hawaiian culture represented the deep ocean realm where life originates and where Spirits return after death. The designation of the waters and seabed of either a Marine National Monument or a National Marine Sanctuary of the Blake Plateau should emphasize it as an American focal point of the Middle Passage. This is recognized in spiritual and cultural belief as the resting place of thousands of ancestors of modern Africans and African Americans. It can and should be formally recognized as a key element of a special place in US waters with cultural and natural values, both tangible and intangible. With these waters resting within the US EEZ and subject to law and regulation, they form the basis for applying the practices and procedures enshrined in Federal law for locating, documenting, preserving and respecting heritage.

The Gullah/Geechee people of the coastal Carolinas, Georgia and northeastern Florida have a particular spiritual connection to the waters of the Blake Plateau. Along the Gullah/Geechee Cultural Heritage Corridor that extends from the coastal areas of Wilmington, NC to Jacksonville, FL, it is likely that the remains of their ancestors and kin are embedded in the seafloor and harbors of the plateau. Additionally, for centuries, the Gullah/Geechee people have been dependent on the ocean to provide daily sustenance in the form of seafood that are main staples of the Gullah/Geechee diet, particularly shrimp, crabs and various types of fish. The waters of the Blake Plateau provide nutrients to the coastal waters where these species live, so the Blake Plateau holds a special reverence for the Gullah/Geechee.

There is a palpable spiritual connection to the Blake Plateau, particularly for people of African descent and the Gullah/Geechee Nation who live along its coastal waters. Although many scientists focus on the mysterious and pristine beauty of the flora and fauna among the coral reef systems, there is a human connection to these waters of the Atlantic Ocean. The ocean has memory; the waters of the Blake Plateau have ancestral memory. It has the memory of resistance and resilience, of cultural heritage and identity for the millions of people and their descendants that are historically and spiritually connected to its waters due to the misery and the daily sustenance that the waters of the Blake Plateau support. Many draw spiritual power and rejuvenation from this place.

The Illegal and the Domestic Slave Trades, 1808–1860

Middle Passage voyages to the United States did not stop because of the 1807 law banning direct trade. Following the passage of the act forbidding American participation in the African Slave Trade, which went into effect in January 1808, Americans continued to be involved in what was then an illegal activity since chattel slavery remained legal and was the heart of the American economy. The Gulf of Mexico was central to the American slave trade after 1808, increasing in scope in the decades leading to the Civil War. This expansion was the consequence of the rise of the cotton, sugar cane and rice economy of the Southern states, combined with the internal, or domestic slave trade, the “second Middle Passage,” and the ongoing illegal foreign slave trade that relied on Cuban complicity and maritime traffic between Cuban ports and the more isolated sections of the Gulf coast. Southern cotton production dramatically expanded, in large measure due to the opening of lands along the Gulf’s coast and interior, much of it seized from the indigenous nations and tribes that had long occupied it. The massive influx of enslaved labor was brought to work on the vast new plantations that were established along the major rivers and coastline. Southern cotton production stood at 178,000 bales in 1810; by 1860, the South produced nearly four million bales of cotton annually (Pargas 2015:21).

Cotton fed mills and looms along the Atlantic seaboard of the United States, as well as in Europe, primarily Great Britain. American bales represented 28 percent of British imported cottons with major investment in all aspects of the trade in 1800; by 1860, the American South provided Britain with 88 percent of its cotton (Dattell 2009:37). Cotton was the “national economy” of the United States, and America’s greatest export (Farrow et al. 2006:4–5; Pargas 2015:21). As such, this was a commodity that was backed and invested in by major banking houses in New York. The New York Cotton Exchange, established by the Lehman Brothers of New York, thrived, as did smaller investors and businessmen who bundled and compressed the bales. In addition, commissioned merchants who were the intermediaries that handled the buying and selling of cotton, the owners of the packet ships that carried the cotton, and the laborers and firms that loaded it into packet ships and steamers also profited. Because that economy and profits depended on enslaved labor, slavery—the selling and buying of human beings—was a valuable industry itself (Land 1884:29; Albion 1984:103–104).

The domestic slave trade was a response to the need for enslaved labor by Southern plantations and established in the wake of the passage of laws by Congress. The first, in Albion 1984, outlawed American participation in the international, or foreign slave trade, the Middle Passage or the Transatlantic Slave Trade after centuries of slave trade voyages to the American colonies and the United States. After January 1, 1808, that trade was outlawed by the new law (2 Stat. 426). Slavery, however, as an American institution, remained legal. Americans were legally allowed to buy and sell people as slaves, and to transport them, by land or by ship, to neighboring states that allowed slavery. Over one million people were transported from slave states in the north to the Deep South in a lucrative trade that enriched slave traders (Pritchett 1997, 2001; Gudmestad 2003:8; Deyle 2004:93; Pargas 2015:19). While one aspect of trading in people had been declared illegal, it had been replaced by “creating a federally protected internal market for human beings” (Rothman 2021:12). That market was fed by driving chained people south, like cattle, in long coffles, loading them into flatboats and steamers that went down the rivers and to the Gulf’s surrounding territories and states, or by transporting people in ships, primarily schooners and brigs, to Charleston, New Orleans and other Gulf ports. This expanded, not only as a

specialized trade, but in time as a regular aspect of maritime trade. That essentially made the Gulf Stream, and the waters that pass over the Blake Plateau into a *de facto* second “Middle Passage.”

When the maritime slave trade, which for centuries had transported people from Africa to the Caribbean and the Americas, was made illegal in the United States, a “reservation was made in favor of the coast wide trade of the nation itself” that allowed vessels of forty tons burthen or more to transport enslaved people “from any port in the United States to any port or place within the jurisdiction of the same” without limits on how people could be carried, nor any provisions for safety, health or comfort (Spears 1900:173). Any vessels over forty tons registry could be licensed to transport human cargo so long as they filed a manifest listing any “negro, mulatto, or person of colour, for the purpose of transporting them to be sold or disposed of as slaves, or to be held in service or labor” with officials at the ports of departure and arrival (2 Stat. 426: Sec. 9).

A number of these manifests survive in the U.S. National Archives, particularly for the busiest port of arrival, New Orleans. However, gaps in the records exist between 1808 and 1818 and in 1858 for inward manifests (ships arriving at New Orleans) and from 1813–1817, 1837, and 1859 for outward manifests; the records may additionally be incomplete as individual manifests may be missing in the “complete” years. Nonetheless, what emerges is how extensive the domestic or internal slave trade was, a fact noted at the time in the accounts and condemnations of the trade by the abolition movement. Far beyond statistics, the numbers speak to pain, suffering, and the constant fear, or “perpetual dread” of family and social disruption and separation because the “entire economy of the antebellum South was constructed on the idea that the bodies of enslaved people had a measurable monetary value” (Johnson 2013:25).

The internal slave trade expanded dramatically after 1830 in response to new lands opening up through the forced relocation of the indigenous peoples after the passage of the “Indian Removal Act” of 1830, who had lived in the region for thousands of years, and the opportunity for wealth afforded by the cotton economy in particular. Slave dealers prospered in the Northern slave estates and in the national capitol, then known as “Washington City,” while others relocated and established businesses, or entered into partnerships with local merchants. This trade “made slave property the most valuable form of investment in the South, surpassing even land” (Deyle 2004:92).

While large numbers of people were “sold down the river” and transported by land in coffles of people chained together, others were transported over water. Those journeys passed over the Blake Plateau. This trade consigned people as cargo in what was viewed at the time as an “essential trade, financed in part by merchants and bankers in *entrepôt* cities” (Schermerhorn 2014:897). It then transitioned into an aspect of business owned and operated by interregional slave traders, and after the Panic of 1837, a financial crisis which triggered a nation depression, the domestic slave trade transitioned back into being a part of the “essential trade” that connected the North with the Gulf states as cotton assumed a stronger role in national economic recovery.

Sending people south by ship was more expensive than by land, but it was faster and more secure (Rothman 2021:88–89). Slave trader Austin Woolfolk, who entered the trade in 1818, was “the largest and best-known slave trader in the Chesapeake, and for several years he was the leading trader in the entire country,” ultimately shipping some 2,500 people (Rothman 2021:85–86). Creating a network of buyers, advertising on handbills and in the local papers, he turned to ships to send people south to Charleston or Savannah until he established an office in New Orleans while he maintained his home and other office in Baltimore (Rothman 2021:88).

While “Woolfolk did not invent the idea of using transportation methods commonly associated with the transatlantic slave trade for the purposes of the domestic,” he was the first to use “coastal shipping so extensively” (Rothman 2021:89). Rothman (2021) in assessing Woolfolk’s business, summarizes his role in the trade:

He started small, sending four people aboard the brig *Temperance* in December 1818 and relatively few for several years after that. Then, in November 1821, he shipped fifty-four people on a sloop named the *Good Hope*. He sent between five and nine shipments every year after that for the next nine years. By the time Austin Woolfolk sent his last person out of the Chesapeake and on to the Atlantic in the 1840s, he had consigned nearly seventy-five shipments of enslaved cargo (Rothman 2021:89).

Other major actors in the domestic slave trade were John Armfield and Isaac Franklin, who came into prominence as the trade expanded in the 1820s and 1830s with as many as thirty thousand people a year being forcibly transported further south (Rothman 2021:99).

Based in Alexandria, Virginia, Franklin and Armfield sent coffles overland but also used ships, and established a presence in New Orleans with Franklin running it after that city ended a two-year ban on the internal slave trade and quickly became the “complete mart for the slave trade” (Rothman 2021:113). The firm prospered, and in 1831 purchased their own slaver, the brig *Tribune*; they were “the first domestic slave trading company in American history to purchase and operate its own slaver” (Rothman 2021:152). The conditions on *Tribune* and other domestic slave transports were no different than the worst of the transports on the Atlantic; an abolitionist visitor to *Tribune* noted that:

The hold is appropriated to the slaves, and is divided into two apartments. The after hold will carry about 80 women, and the other about 100 men. On either side were two platforms, running the whole length, one raised a few inches, and the other about half way up to the deck. They were about 5 1-2 or six feet deep. On these the slaves lie, as close as they can stow away (Leavitt 1838:578).

An account by another anti-slavery crusader, Ethan Andrews, in 1836, also noted the firm’s business, noting that people were held in “a prison, or slave pen... until a cargo is completed. They are then carried on board the vessel, usually at night, and immediately sail for New Orleans” in brigs “of the first class, built expressly for this trade” (Andrews 1836:80, 142) (Fig. 6).

While other vessels were also built for the firm—notably the brig *Uncas*, a near sister which ran in tandem with *Tribune* (Rothman 2021:218), and in late 1835, another slaver, the brig *Isaac Franklin*, a 190-ton vessel (Rothman 2021:229)—a key aspect of the trade in people was that certain vessels were specifically built for and owned by slave traders. They also carried other commodities on voyages along the “cotton triangle,” and conversely, other vessels that were not owned by slave traders, including packets and steamers, also carried people; they were, after all, as far as their owners and the government of the time were concerned, simply another commodity (Schermerhorn 2014). These people were shipped from ports such as Baltimore, Richmond, Petersburg, Norfolk, Portsmouth and Hampton Roads to Charleston and New Orleans, often packed in with freight and cargo, in the thousands, with the small brigs carrying anywhere from a few dozen to over two hundred people.

None of this was a secret at the time. Rothman (2021) summarizes the activities of Armfield and Franklin, which were conducted in the open, regulated by the government, and regularly advertised in the papers:



Fig. 6 The former Franklin and Armfield prison and store in Richmond, Virginia, under new ownership at the end of the Civil War. Photograph by Andrew J. Russell, c. 1865. <http://hdl.loc.gov/loc.pnp/cph.3ca28447>

Over the course of nearly nine years operating their company, they shipped enslaved people from the Chesapeake to the lower South at least sixty-eight times. They rented space on ships belonging to other people twenty-two times, chartered entire vessels nine times, and sent company-owned brigs with enslaved people on thirty-seven voyages. Manifests or other reliable accounts survive for about 80 percent of the shipments. They document 3,426 people sent directly to Isaac Franklin or Rice Ballard, 2,010 people sent by John Armfield or Robert Windsor to other merchants, slaveholders, and slave traders, and 719 people sent by other shippers on vessels the company chartered or on the *Tribune*, the *Uncas*, and the *Isaac Franklin* (Rothman 2021:235).

While Armfield and Franklin went out of business in the aftermath of the Panic of 1837, others stepped in to take their place. The late 1830s and the early to mid-1840s were “depression” years after a booming economy, but by the 1850s the market for cotton was robust and hence, so too was the market for people (Johnson 1999:6).

The depression that began in 1837 did not stop the sale of people; the *Times-Picayune* in February 1840 advertised “NEGROES FOR SALE... a constant supply of Slaves, of every description that will be offered in this market. He will receive and sell slaves on commission from persons living in the city and elsewhere... and at the same time will show to all those that accompany him all other negroes that are shipped from the Virginia, Maryland and North Carolina markets, as well as those brought from any other markets... R.C. EATON” (New Orleans *Times-Picayune*, February 9, 1840:1). On the same page, Wm. Berger, Commission Merchant & General Broker, respectfully tendered “his services for the purchase and sale of Wares, merchandise and produce of all kinds, real Estate, Stocks

Exchange, Money Concerns, Slaves &c.” (New Orleans *Times-Picayune*, February 9, 1840:1).

Solomon Northrup, a free black citizen of Massachusetts, was one of many people illegally kidnapped by slave traders and sold in New Orleans in 1841. His account, *Twelve Years a Slave*, described how he was transported with others in the brig *Orleans* from Richmond, Virginia down the coast and into the Gulf. “S [he did not name the vessel] was a vessel of respectable size, full-rigged, and freighted principally with tobacco... There were forty of us in that brig, being all ...that were in the pen... We were all stowed away in the hold at night, and the hatch barred down. We laid on boxes, or wherever there was room to stretch our blankets on the floor” (Northrup 1853:63–64).

The domestic maritime slave trade continued and rebounded in the 1840s and 1850s, a time when a quarter of a million people were sent south (Rothman 2021:288) especially after the entry of Texas into the United States, an action that among other consequences reintroduced the slave trade into Galveston as a legal enterprise. Demand was increasing, and the demand introduced high prices; this conversely also led to protracted arguments advanced in the South by those who advocated rescinding the 1807 Act and legalizing the Atlantic slave trade once again. Alabama State Senator William Yancey argued in 1858 that he favored reopening the slave trade because he “did not want to be compelled to go to Virginia to buy slaves for 1500\$ each when he could get them in Cuba for 600\$ each or upon the coast of Guinea for one sixth of that sum” (Johnson 2013:401). Yancey was not alone in both wanting the trade reopened legally but also in openly supporting the illegal slave trade (Collins 1904:19).

At that time, the illegal slave trade had grown dramatically in the decades following the 1807 law. Spain welcomed American trade and, after 1806, via its Cuban ports, had become the United States’ “dominant coffee supplier” through its Caribbean and Latin American colonies (McDonald 2005:466). Cuba was of increased interest to American traders as well as other economic interests as it was still wide open to the transatlantic slave trade following the United States’ closure of its ports to slave ships in 1808. Cuba, perfectly positioned along the Gulf Stream, suddenly became a target of interest for American slave traders, who saw in the island’s proximity to the newly acquired New Orleans, Florida, and especially the less-settled, intricate waterways near the Florida-Georgia border as an opportunity to smuggle enslaved persons.

In 1809, when Spain opened Havana, Trinidad and Matanzas to American trade, Cuba “thrown open to the vessels of all nations and the speculative industry of the world” was also “one of the major new opportunities for American merchants” (Marques 2012:242). What followed was a “sophisticated structure connecting northern credit, rum and cotton production, long-distance maritime trade (including its slave variant), and slave plantations in Cuba producing sugar and coffee for the world market” (Marques 2012:254). American enforcement of the anti-slave trade law was practically non-existent. The United States Navy’s West Indies Squadron, established in 1817, focused on the waters off Cuba and Puerto Rico, combining anti-piracy patrols with patrols to interdict smuggling of Africans into the United States, in defiance of the law, but the majority of its actions focused on pirates and privateers.

There were no seizures of illegal slavers by U.S. Navy ships in the squadron until 1844; *Uncas* was the first. In all, the U.S. Navy seized a total of thirty-six ships, and only nineteen went to trial. This was a poor showing when compared to the record of the British West Africa Squadron, established in 1808, and between then and 1860 captured some 1,600 slave ships and freed some 150,000 captives (Lloyd 1968, Hochschild 2005, and Rees 2009). The U.S. record was truly dismal. There were only ten seizures in the 1840s,

fourteen in the 1850s, and twelve in the 1860s, ending with the seizure of the slaver *Falmouth* by the steamship USS *Sumpter* on June 14, 1861 (Canney 2006:233–234). The U.S. record remained dismal, and the Gulf coast region remained an active zone for the illegal slave trade up to the advent of Civil War, punctuated by fervent demands from Southern politicians that the illegal trade be again legalized. American juries remained unconvinced that slave smuggling was a crime.

New Orleans merchants purchased the brig *Echo* and sent it to Cuba to engage in the African slave trade in 1857, and after one successful voyage, *Echo* returned and purchased 450 captives off the coast of Angola in June 1858. *Echo*, with a false name, was intercepted off Cuba by USS *Dolphin* and escorted to Charleston. When they arrived, only roughly half of *Echo*'s captives had survived a harrowing passage. While the case caused significant outrage among American abolitionists, the jury in Charleston found *Echo*'s officers and crew not guilty of violating the anti-slave trade laws (Woodruff 1859). By 1860, seventy-four Americans had been prosecuted for conducting or participating in illegal slave-trading voyages, and while this was a capital crime, none had been executed and most, while guilty, had been cleared by sympathetic, pro-slavery juries of their Southern peers (Thomas 1997:774).

The key issue was that the American economy, and in particular the wealth of Southern businessmen, was entirely tied to the cotton trade and its need of enslaved labor. A British observer, James A. Mann, writing in 1860, plainly stated that:

the power of these States to increase their production of cotton is not limited by any lack of lands adopted to its growth – scarcity of labour and capital are the only restrictions to their producing power, so long as cotton continues a remunerative crop. The nature and scarcity of the labour employed is, however, a serious obstacle... The capital... is locked up in the purchase of slaves to work the land; and the number of these is limited, so that any greatly increased demand for them, raises the price so high as to neutralise in a great measure the profit of extending the cultivation by means of newly purchased hands - thus preventing the planters and the world from deriving that advantage which ought to accrue to all parties from an increase in consumption (Mann 1860:53).

In this atmosphere of overt defiance of the federal law, the fact that the Gulf Stream remained a highway for the American slave trade means that for the decades after 1808, the area of ocean that lies over the Blake Plateau was still a highway for that trade, albeit as a more clandestine and not regularly reported activity.

A Maritime Highway in War and Peace, 1861–1940

Throughout the nineteenth and early twentieth centuries, the Gulf Stream remained the principal maritime highway for vessels going into and out of the Gulf, as well as the maritime link for coastal trade between the Southern states and the rest of the eastern seaboard of the United States and Canada other than the period of the American Civil War (1861–1865), and even then, not for the duration of the war. The immediate imposition of a naval blockade of the rebellious Southern states led to a significant decline in domestic and international commercial trade along the Gulf Stream.

The Confederate strategy of coastal defense to keep its key ports from being taken and blockade running meant that the Gulf Stream was primarily a military highway, as the

United States Navy utilized the route for the deployment of ships to and from the Gulf and to the key Southern ports of Charleston, Savannah and Wilmington, North Carolina that were now under naval blockade. As part of that strategy, the Atlantic Squadron of the U.S. Navy was reorganized, and split into the two; the South Atlantic Squadron patrolled the waters south of the border of North and South Carolina. The Navy also established a strong naval presence at Port Royal, near Beaufort, South Carolina. A naval force seized the Sea Islands in November 1861; that provided a safe harbor for the ships engaged in the blockade along the Gulf Stream. Under Union occupation, the Sea Islands also became a haven for freed African Americans, and as such the nexus of Reconstruction.

As the deepest natural harbor on the Atlantic Seaboard south of New York, Port Royal in the islands also became the setting for a naval depot. The formal establishment of the depot came after the Civil War. The completion of the Port Royal Railroad in 1874 reached the formerly isolated coastal islands; it was followed by the construction of a dry dock and a coaling station for U.S. Navy ships. By 1876, many of the Navy's steamers wintered at Port Royal to escape being iced in at northern harbors and, in 1877, the U.S. government formally established the "United States Naval Station, Port Royal, South Carolina." Construction of wharves, warehouses, and a dry dock in the 1880s and 1890s meant that by the time of the Spanish-American War, Port Royal was central to American naval actions in Cuba. Port Royal was glowingly described by boosters in 1895 as the "Greatest Atlantic Port... conveniently located as a coaling and repair station or a refuge for vessels passing from New York to the West Indies and South America, or from the Gulf to Europe... It is a perfectly safe harbor. Its water is deep and its channel straight and unchanging... Not a dollar has ever been spent or will ever need to be spent in dredging or deepening this harbor. There is room for miles of wharfage" (Ayer 1895:92).

As the war ended, the resumption of maritime trade took time to recover as the infrastructure and agriculture of the South was badly damaged, the cotton economy as well as others that had relied on forced, enslaved labor had effectively collapsed. It took over two decades for the Southern economy to recover, and much of the remaining years of the nineteenth and early twentieth century for modern ports to emerge to handle the new reality of steamships linked to railroads that were spanning the continent and linking markets, especially as the Gulf reopened to Central, South American, and Caribbean trade and then to global markets. As early as 1871, it was noted that "The Gulf of Mexico is the Mediterranean of the New World, and nature has laid it out on a scale for commerce, far more grand than its type of old" (Tait 1871: 16–17).

Postwar development of major trade in coal, iron, phosphate and the previously untapped potential of the South's vast softwood pine forests reintroduced an active trade along the route that sailed in and out of the Gulf and, in doing so, crossed over the Blake Plateau. Congressional action opened large federal timber reserves in 1876 and in 1880 selling the land cheaply to encourage both a revived lumber trade but also settlement (Gates 1979). As a result, vast tracts totaling 40 million acres of virgin softwood and hardwood forests were the focus of a Southern economic revival and employment in a number of lumber towns and saw mills that were built for the industry. Charleston in particular played a significant role in the lumber trade, as did Jacksonville and Savannah (Eisterhold 1973). The "golden age of lumbering" (1880–1920) was part of an active coastal trade that resumed post-Civil War to again connect Atlantic Florida, Georgia and the Carolinas with northern ports (Ayers 1992; Caldwell 1975; Outland 2004).

After 1867, the mining and shipment of natural phosphate, from beds of the mineral that lined the banks of the Ashley River near Charleston, led to a postbellum boom that lasted into the early 1890s as large numbers of vessels stopped at the Sea Islands and at

Charleston to load “stinking” river rocks mined primarily by African Americans in harrowing, circumstances including debt peonage; another aspect of the industry was the increased use of convict labor again, disproportionately focused on “employing” imprisoned African Americans. Loaded on railcars or river barges the raw rock was then shipped to processing plants. The processed material was loaded onto ships, many of them larger capacity wooden schooners, as well as older sailing vessels, their rigging removed and turned into barges, that were towed by steam tugs.

The coastal trade in phosphate, coal and lumber that defined the late nineteenth and early twentieth century maritime economy of the region and the ocean highway that passed over the Blake Plateau were reflective of the decline of the American merchant marine, which was being replaced not only by larger capacity British and other European iron and steel-hulled sailing ships but also by steamships. As those vessels took over as the primary means of transport for more expensive cargoes, the less efficient, but cheaper to operate wooden American coastal sailing craft persisted through the start of the Second World War. Known as “deep sea workhorses,” increasingly larger three, four, five and six-masted wooden schooners, many built in Maine, were the last great expression of American wooden shipbuilding and trade (Chapelle 1935:258–264) (Fig. 7).

Excellent insights into the working routine, ports and voyages along the Gulf Stream in the lumber trade by a four-master are found in a detailed history that draws on the



Fig. 7 Four-masted schooners loading lumber in Savannah, c. 1905–1906. This trade and these types of vessels dominated the maritime highway that crossed over the Blake Plateau in the first decades of the twentieth century. Library of Congress, control no. 2016803976

surviving records of the schooner *Albert F. Paul*, which worked in the southern lumber trade from 1917 to 1942 (Burgess 1975). These coastal sailers were the primary means of cheap transport of low-grade commodities such as coal, phosphate, cotton, tobacco, lumber, and ice through the end of the nineteenth century and into the early twentieth century when smaller coastal freighters and steamers entered the trades. The post-World War I glut of surplus mass-produced wartime-built steamers added more of those craft to the coastal trade, but even then, the use of the older wooden craft persisted, as noted, to the early years of World War II.

World War II and the Battle of the Atlantic

The Battle of the Atlantic was the ocean-wide conflict of World War II that consisted of Germany's all out raid on Allied shipping in an attempt to cut Great Britain off from deliveries of fuel and supplies from the United States and other allies. The long-running campaign included an Allied blockade of Germany and Germany's counter-blockade. The *Kriegsmarine* conducted raids on shipping with a variety of weaponry, including new surface warships, but was primarily fought by U-boats targeting merchant ships. During the period of this battle, which ran from 1939 to the end of the war in 1945, 3500 merchant ships and 175 Allied warships were sunk compared to the loss of 47 German surface warships and 783 U-boats. Britain had maintained its supremacy in naval warfare during World War I despite Germany's introduction of the submarine that nearly ended Britain's centuries-long naval reign (Morison 1947:3). While submarines had initially targeted the British Grand Fleet, they were deployed against merchant shipping later in the war, and this tactic, along with Allied anti-submarine warfare, was reinstituted on a broader scale in World War II.

U-boats were deployed initially against merchant fleets in and around the British Isles and France through mid-1940 and expanded to the eastern Atlantic from Iceland to Africa into 1941 with great successes. The war on the water expanded to the entire North Atlantic as the United States accelerated supplying Britain with fuel and supplies. When Germany declared war on the United States on 11 December 1941, U-boats were sent to the U.S. coast to raid merchant shipping in what was dubbed Operation Drumbeat. Fuel was especially critical to the Allied war effort, and therefore oil tankers were especially targeted by U-boats. Before the end of the war, 61 were sunk in American waters (Marx and Delgado 2013a:39).

The first casualties of Operation Drumbeat were tankers *Norness* and *Coimbra*, sunk off Long Island on 15 January 15 1942 by U-123, and the assault on merchant shipping along American shores continued into 1943 extending all the way into the Gulf of Mexico and the mouth of the Mississippi River. The Gulf Stream was the highway along which petroleum products were moved by ships from Texas and other Gulf ports north to Philadelphia and Boston before shipping overseas to England and the Allied war front. A large number of merchant vessel casualties lie off Cape Hatteras, North Carolina as one of the bottlenecks in the route north, but many others lie south of there in the vicinity of the Blake Plateau. Table 1 lists the merchant ships sunk by submarines between 1942 and 1943 in the area. Some of these wrecks are listed on NOAA's 2013 study as potentially polluting wrecks due to their oil cargoes or full bunkers when they were sunk. These include *Bloody Marsh*, *Esso Gettysburg*, *Lubrafol*, *Ohioan*, *Pan-Massachusetts*, and *W.D. Anderson*.

Table 1 Ships sunk by Axis submarines in the vicinity of the Blake Plateau during World War II (from Heersink 2022)

Ship	Type	Date Sunk	Sunk By	Tonnage	Location
Amazone	Cargo	May 6, 1942	U-333	1,294	Off Florida
Athelqueen	Tanker	Mar 15, 1942	Italian sub	8,780	Off Blake Escarpment
Bloody Marsh	Tanker	Jul 2, 1943	U-66	10,195	On Blake Plateau
Cities service empire	Tanker	Feb 22, 1942	U-128	8,103	Off Florida
Daytonian	Cargo	Mar 13, 1942	Italian sub	6,422	Off Blake Escarpment
Esparta	Cargo	Apr 9, 1942	U-123	3,365	Off South Carolina
Esso Baton Rouge	Tanker	Apr 8, 1942	U-123	7,989	Off South Carolina
Esso Gettysburg	Tanker	Jun 10, 1943	U-66	10,173	On Blake Plateau
Gulfamerica	Tanker	Apr 11, 1942	U-123	8,081	Off North Florida
Halsey	Tanker	May 6, 1942	U-333	7,088	Off Florida
Korsholm	Cargo	Apr 13, 1942	U-123	2,647	Off Florida
Laertes	Cargo	May 3, 1942	U-109	5,825	Off Florida
Leslie	Cargo	Apr 13, 1942	U-123	2,609	Off Florida
Lubrafol	Tanker	May 9, 1942	U-564	7,138	Off Florida
Mamura	Tanker	Feb 26, 1942	U-504	8,245	Off Blake Escarpment
Ocean Venus	Cargo	May 3, 1942	U-564	7,174	Off Florida
Ohioan	Cargo	May 8, 1942	U-564	6,078	Off Florida
Oklahoma	Tanker	Apr 8, 1942	U-123	9,264	Off South Carolina
Pan Massachusetts	Tanker	Feb 19, 1942	U-128	8,202	Off Florida
Republic	Tanker	Feb 22, 1942	U-504	5,287	Off Florida
W.D. Anderson	Tanker	Feb 23, 1942	U-504	10,277	Off Florida

Only a handful of these shipwrecks have been located, however. *Gulfamerica* was sunk on 11 April 1942 also by U-123 offshore Jacksonville, Florida. The wreck was demolished after the war as a navigational hazard, however (Gannon 1990). *Pan-Massachusetts*, sunk by U-128 on 19 February 1942, and *Lubrafol*, sunk by U-564 on 9 May 1942 both went down off southern Florida in 1942 and are known by divers. They have not been documented archaeologically or assessed for pollution risk. Another loss, the wreck of SS *Bloody Marsh*, was located by NOAA ship *Okeanos Explorer* in 2021 at 465 m depth because repeating oil slicks from the wreck since the 1990s were detected in satellite imagery and inspired the research request to survey that area of the seabed (Fig. 8).

SS *Bloody Marsh*, sunk in July 1943 by U-66, was a larger tanker and carrying more than 100,000 barrels of heavy fuel oil, and is one of the two World War II wartime losses located on Blake Plateau itself (see map in Fig. 1). The ROV dive found the main bulk of the wreck turtled on the seabed and broken off at the location of tank three where one torpedo had struck. About 100 feet of the ship forward to the bow is missing and likely elsewhere in the vicinity. The overturned nature of the wreck indicates much of the petroleum cargo likely remains trapped within the hull (Brennan et al. 2024). Further exploration efforts to locate and document the other World War II era wrecks in the vicinity are necessary to assess pollution risks from these sites.

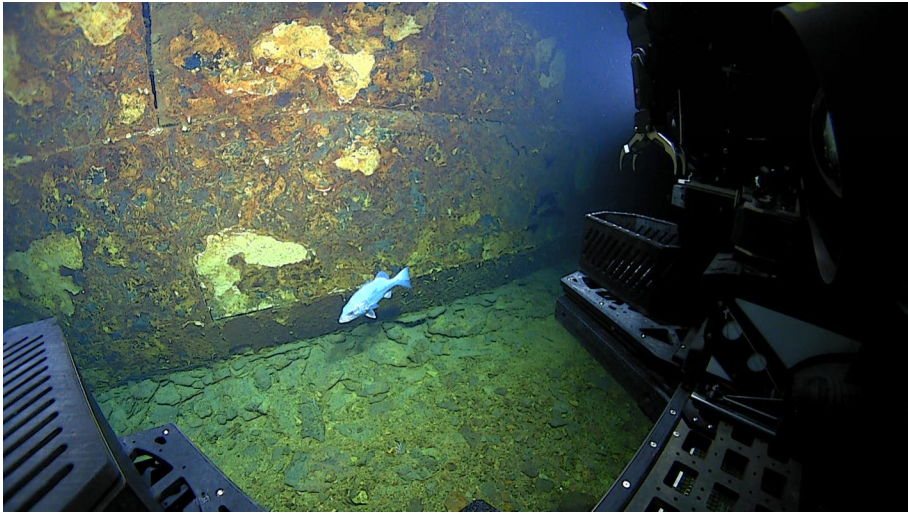


Fig. 8 The welded seams of the wreck of SS *Bloody Marsh*, as documented after its discovery on the Blake Plateau. NOAA Office of Ocean Exploration and Research

Science at Sea: Understanding the Gulf Stream and “Discovering” the Blake Plateau

Early efforts to understand the Gulf Stream began during colonial times and continued into the nineteenth century when the United States Coast Survey commenced studies and worked to map this vast undersea “river.” This work continued well into the next century as the Coast Survey became part of the National Oceanic and Atmospheric Administration (NOAA). Under the direction of Alexander Dallas Bache, the second superintendent of the Coast Survey, Coast Survey vessels and crews began a systematic series of investigations when the brig *Washington* was dispatched to measure current velocities, temperatures, and water chemistry, and to take soundings in the early nineteenth century.

The Blake Plateau gained its name through the work of the pioneering U.S. Coast and Geodetic Survey steamer *George S. Blake*, which undertook a series of cruises starting in 1876 under the command of Lt. Commander Charles Dwight Sigsbee, USN and continued over the next decade and beyond as major focus for the agency (Agassiz 1888). Measuring current and taking deep-sea soundings, as well as dredging samples from the deep seabed in both the Gulf of Mexico and along the Gulf Stream, *Blake*, then under the command of Commander John R. Bartlett, USN, continued its work in 1878–1880, and in 1881 made soundings that were the first indication of the plateau. Bartlett noted in 1882, that:

our later soundings show an extensive and nearly level plateau, extending from a point to the eastward of the Little Bahama Banks to Cape Hatteras – off Cape Canaveral nearly 200 miles wide, and gradually contracting in width to the northward until reaching Hatteras, where the depth is more than 1000 fathoms within thirty miles of shore. This plateau has a general depth of 400 fathoms, suddenly dropping off on its eastern edge to over 2000 fathoms (Bartlett and USN 1882: 274).

One of the significant discoveries made during those cruises was the presence of ferromanganese nodules, as well as a hard, coralline bottom (Murray 1885; Dillon and Popenoe

1988). The scientific significance of the Blake Plateau in American and international oceanographic studies continues into the twenty-first century with decades of cruises, deep dives and studies by multiple organizations, institutes and agencies. This includes multiple cruises by NOAA vessels, and the recent discovery of vast cold-water coral mounds that are the most expansive examples yet found (Sowers et al. 2024).

The length of the Blake Plateau was also the route of a key scientific oceanographic mission of 1969, the Gulf Stream drift mission of the 130-ton mesoscaphe *Ben Franklin* (PX-15). Commanded by Jacques Piccard, veteran of bathyscaphe dives including the epic *Trieste* dive into the Challenger Deep, the *Ben Franklin* mission was designed to drift, submerged, in the Gulf Stream, at a mid-range depth to explore that aspect of the ocean. Designed by Piccard in partnership with the Grumman Aircraft Engineering Company, *Ben Franklin*'s nickel steel cylindrical capsule was manufactured by Giavanola Freres in Monthey, Switzerland in 1966–1968, and then shipped to Florida, where Grumman completed the construction and fitted the instrumentation required for the dive. Based on Piccard's and his father Auguste's earlier design for *Trieste*, *Ben Franklin* was essentially a pressure-resistant craft that was ballasted and suspended with large tanks of high-octane fuel and hence drifted like an "undersea balloon."

The Gulf Stream drift mission, with a six-man crew, deployed from Palm Beach, Florida on 14 July 1969, and drifted at depths that ranged from 180 to 800 m in the Gulf Stream and over the Blake Plateau before exiting and drifting north until it surfaced after a thirty-day, 2324 km voyage that ended a few hundred kilometers south of Halifax, Nova Scotia on 14 August (Piccard 1971). The mission, co-sponsored by the National Aeronautics and Space Administration (NASA) and the U.S. Navy's Oceanographic Office, demonstrated the engineering and operational concepts of long-term submersible operation, the effects of a long-duration, closed-environment stressful voyage, and also conducted scientific oceanographic studies. The mission might have made global headlines as an extended voyage into inner space, but it coincided with the landing of Apollo 11 on the lunar surface. It remains a landmark achievement in the history of oceanography and submersible dives.

Tangible Cultural Heritage: Shipwrecks

In contrast to nearly two centuries of oceanographic and other scientific work in the Gulf Stream and on the Blake Plateau, archaeological survey has been extremely limited. As will be seen, the surveys specifically seeking shipwrecks have primarily been the result of quests by treasure hunters seeking ocean steamship wrecks known to have sunk with large amounts of coins, an accidental find on the Blake Ridge during a 2015 project by Woods Hole Oceanic Institution (WHOI) and Duke University (Delgado 2024) and the previously discussed successful search for the wreck of SS *Bloody Marsh* by NOAA ship *Okeanos Explorer* in 2021. Other shipwrecks doubtless exist given the long scope and active use of the area as a marine highway for five centuries and newspaper accounts of vessel losses in the area. In many cases the exact coordinates are unknown, but a review of the various published accounts indicates a range of possibilities. The brief selection below provides an overview of the mid-to-late nineteenth century vessel losses in the area of the Blake Plateau:

"Missing Vessel. Fears are entertained for the safety of the brig *Howell*, on her voyage from Havana and Charleston. She left Key West on the 28th of Sept for Charleston, since then nothing has been heard of her. It is feared that she foundered in the

gale of the 3d inst. Among her passengers was Peter Hogan, Esq. an enterprising merchant of the house of L. Mariategui & Co. in Havana” (*New York Tribune*, October 27, 1843:1).

“The British brig *Falcon*, of Halifax...on her voyage in ballast, from Jamaica to Halifax, sprung a leak in the Gulf Stream, and was abandoned on Sunday night last. The Captain and crew, six in number, arrived at Savannah on Wednesday, having been at sea three days and nights, in an open boat, with nothing to eat but raw provisions. The vessel was old, and the leak was discovered, she was half full of water” (*The Charleston Daily Courier*, July 21, 1849:2).

“The schooner *Waldron*...from the Atlantic Ocean, reports on the 10th instant, on the southern edge of the Gulf Stream -- fell in with the bark *Cairo*, of London, in a sinking condition—had been thrown on her beam-ends the day previous, during a violent hurricane. Succeeded in taking off the crew—thirteen in all” (*The New York Times*, September 19, 1853:1).

The screw steamer *D.H. Mount*, a two-year old vessel, foundered in late October 1865 “between Cape Hatteras, N.C. and Jacksonville, Florida” with 24 lives lost (Gaines 2008:13). The steamer was last seen by the schooner *J.L. Hiss* two hundred miles south of Cape Fear, North Carolina on October 23 (*Savannah Daily Herald*, November 23, 1865:1 and *The New York Times*, November 23, 1865:5).

The steamship *Evening Star* sank in a hurricane October 6, 1866, 180 miles east of Tybee Island. Out of a total of 300 on board, 283 survivors in lifeboats were rescued and brought to Savannah, others drifted ashore at Amelia Island, Florida. (*The New York Times*, October 9, 1866: 1).

BRIG *ONTARIO* (Br.) Tupman, from New York October 28 for London, with 2,950 bags asoxine and 750 d[itt]o bone, was dismasted Nov 8, in the Gulf Stream, and abandoned on the 10th. Captain and crew rescued by brig *Esk*...and landed at Kingston, JA (*The New York Daily Herald*, December 10, 1872:10).

“A portion of the crew of the British brig *Flying Cloud*, which was abandoned in the Gulf Stream on the 14th, arrived from Wilmington yesterday. They report that the brig was bound from Cienfuegos for New-York with a cargo of sugar. She encountered severe weather, and on the 13th suddenly sprang a leak” (*The New York Times*, March 22, 1881:3).

“Feb. 24—Sch *Elva F. Pettengill*, at this port from Sagua, saw, no date, about the latitude of Charleston, SC, on the eastern edge of the Gulf Stream, an abandoned steamer, burned nearly to the water’s edge” (*Portland Press Herald*, February 26, 1885:4).

“Wreck of the barkentine *Carrie L. Tyler*...The *Tyler* sailed from Savannah Sunday... on Monday a northern gale was encountered, with enormous seas...she sprang a leak and Wednesday morning she became unmanageable. The water gained in the hold until the barkentine was waterlogged and Capt. Jayne ordered the masts cut away... The next day the steamer *Egremont Castle* hove in sight and Capt. Jayme and his crew...took to their boats and abandoned the wreck. The *Carrie L. Tyler* was laden with 163,186 feet of crossties and 218,368 feet of pitch pine lumber...She was a regular trader between this port and New York” (*The Savannah Morning News*, September 28, 1897:6).

In addition to these accounts, a United States Hydrographic Office study of “Wrecks and Derelicts on the North Atlantic Ocean, 1887 to 1893,” assessed reports and charted locations of derelict ships (i.e., vessels abandoned at sea) that were usually wooden sailing

vessels, ranging from fishing vessels to lumber schooners, with a number of reported derelicts noted in charts in 1893, 732 reports of 418 different derelicts, with 106 of them identified by name. The statistics offer a focused look at a large-scale problem, with 148 derelicts reported in 1887, 135 reported in 1888, 222 in 1889, 204 in 1890, 240 in 1891, 261 in 1892, and 418 reported in 1893 for a total of 1628, of which 1146 were unidentified and 482 were identified (United States Hydrographic Office 1894). “Most were located in the Gulf Stream off the U.S. East Coast...30 N and 60 W” (United States Hydrographic Office 1894:7).

This was likely because many of them were coasting schooners “laden with hard pine from Georgia for ports north of Cape Hatteras” (United States Hydrographic Office 1894:478). The derelicts that clustered in and around the Gulf Stream stayed afloat an average of 30 days, but some stayed afloat up to two hundred days (United States Hydrographic Office 1894:465–466). Forty-one of the derelicts were towed to shore and seventy-two were sunk by fire (United States Hydrographic Office 1894: 477). The number of derelicts in the Gulf Stream declined by the end of the nineteenth century due to success in finding and sinking them and the rise of iron and steel in shipbuilding; in 1894 that American steam tonnage surpassed sail (United States Hydrographic Office 1894:478). The fact that deep-water survey and scientific missions have located several nineteenth century wrecks in or near the area of Blake Plateau indicates that tangible remains of shipwrecks also likely rest in the area that has yet to be located but will be present (Fig. 9).

The Blake Ridge Wreck was discovered accidentally on 12 July 2015, by the submersible *Alvin* working off Woods Hole Oceanographic Institute’s (WHOI) R/V *Atlantis*. The expedition, headed by Cindy Van Dover of the Duke Marine Laboratory and David Eggleston, Director of the Center for Marine Sciences and Technology (CMST) at North Carolina State University, was assessing the ecology of deep-sea methane seeps. After initial analysis of the wreck during the *Alvin* dive, it was recommended to return if a mission came available, and that came in May 2018 with NOAA’s deep-sea mission “Windows to the Deep 2018: Exploration of the Southeast U.S. Continental



Fig. 9 Orthomosaic of the Blake Ridge Wreck, based on NOAA-led dives in 2018. NOAA Office of Ocean Exploration and Research and Bureau of Ocean Energy Management

Margin” with NOAA ship *Okeanos Explorer*. The detailed assessment and mapping of the wreck, with an orthomosaic as the primary scientific product, allowed for an identification of the wreck as a two-masted “wet-well” fishing smack of c. 1830–1850, a type of vessel that worked the waters off Charleston in that period. The position of the wreck far offshore and the range of material culture that included valuable artifacts such as navigational instruments, suggested a storm event had rapidly sunk the vessel and with a probability of no survivors. These types of vessels were actively worked by African Americans throughout the years of enslaved labor as well as post-Civil War. While larger than the craft depicted in Winslow Homer’s “The Gulf Stream,” the archaeological team suspects the focus of that painting reflects the trade and cultural context of the Blake Ridge Wreck (Delgado 2024).

The private venture-funded company Odyssey Marine Exploration was founded in 1994 to locate the deep-water shipwreck of the 1853-built steamer *SS Republic*, which sank in a storm in the Gulf Stream on 25 October 1865. Most of the passengers and crew survived after abandoning the ship in lifeboats and a quickly built raft after it lost steam and began to sink; the greatest loss of life, sixteen, came from the raft which, when found, had only two survivors. With the vessel went the passengers’ baggage, the personal possessions of the crew, cargo and a reported \$400,000 shipment of silver and gold coins (Vesilind 2005). The story and the treasure inspired an ultimately successful search by Odyssey that began in May 2002 and culminated in its discovery in August 2004. The wreck was reported to lie some 160 km southeast of Savannah in 520 m of water (Vesilind 2005; Dobson 2005; Dobson et al. 2010).

ROV documentation generated a photomosaic of the site and detailed assessment of a 65 by 35 m “continuous and coherent” wreck that “retains the classic elliptical shape of a ship” within a larger field of scattered wreckage covering 56,726 square meters. Limited excavation led to the recovery of 14,414 artifacts in addition to 51,404 coins, some of them still stowed in partially marine organism-consumed wooden barrels, the standard means of shipping bulk silver specie during the period (Dobson, Werth and Winckler 2010:2, 6, 9–22; Bowers 2010). The artifacts, broadly described as “trade goods, essential to daily life and commerce” at that time, and bound for New Orleans, included bottled goods with organic contents preserved inside, ironstone china, bolts of cloth, writing slates, religious artifacts such as crucifix-shaped pressed glass candlesticks and porcelain figures, leather shoes, and hardware (Dobson and Gerth 2010; Balkwill and Smith 2010; Tolson and Gerth 2010; also see Gerth 2006).

There is no record of subsequent expeditions or recoveries. Artifacts, in addition to coins, have been sold and some remain on sale in popular e-commerce sites. This aspect of the project is counter to the ethics and code of conduct for professional archaeologists. Notwithstanding, the wreck of *SS Republic* rests within the EEZ of the United States, and as such falls under the laws of the United States, as was seen when Odyssey filed a motion for salvor-in-possession status under admiralty law in Tampa with the United District Court for the Middle District of Florida and was awarded that status on 12 August 2003. There was no litigation against their claim, and as salvor-in-possession, they were able, as noted, to sell coins and other artifacts at auction. It may be eligible for listing in the National Register of Historic Places (NHPA). The application of the National Historic Preservation Act of 1966, as amended (Public law 89–665) for offshore World War II wrecks, and recent use of the National Register of Historic Places as a tool for assessing the significance of deep-water shipwrecks by both NOAA and the Bureau of Ocean Energy Management (BOEM) are possible because the NHPA is applicable to far offshore wrecks as long as they fall within the U.S. exclusive economic zone (EEZ).

The first application of National Historic Preservation Act (NHPA) to determine National Register eligibility for offshore wrecks was with USS *Monitor*, the iconic Civil War ironclad, in 1973, which lies some 16 miles off the coast of North Carolina. Subsequent individual nominations have included deeper, more distant wrecks within the EEZ, but the major shift came in 2013 with the National Register listing of “World War II Shipwrecks along the East Coast and Gulf of Mexico” a multiple property nomination with a 68-page overview. Potentially included but subject to individual assessment and nomination through continuation sheets, are 158 merchant ship losses, five U.S. military vessels lost to U-boats, seven U.S. military vessels lost to mines, and twelve known German U-boats (Marx and Delgado 2013: E 39-E46). The impetus was streamlining the process of determining eligibility, as required under the NHPA for the likely remediation of historic World War II wrecks still containing oil or other petroleum products that were leaking or at risk. These threats to the environment required not only physical assessment to determine if they were leaking, but also would likely require intervention. Because the U.S. Coast Guard would coordinate and often contract for the remediation of polluting wrecks, and some of these wrecks were potentially eligible for listing in the National Register, the U.S. Coast Guard was required under Sect. 106 of the National Historic Preservation Act (NHPA) to consider adverse effects to these historic properties (Symons et al. 2014: 2024). In an emergency response situation, there was likely insufficient time to adequately comply with the NHPA, or to determine if a wreck warranted mitigation. As well, the BOEM, with its federal undertakings also involving the U.S. EEZ and any potentially eligible, significant historical and archaeological resources, including shipwrecks, also had not only an interest but a need to assess NRHP eligibility through nominations.

Twenty WWII wrecks beyond the 12-mile limit and within the EEZ that fell into this category are listed in the National Register, and are the result of a coordinated efforts by NOAA and BOEM. A second multiple property nomination, for nineteenth century wrecks in the Gulf of Mexico, was just completed for BOEM, and wrecks, some as far out as 199 miles, but still within the EEZ, have been determined eligible for listing. Utilizing this same approach, we believe that known wrecks within the Blake Plateau area, and which are documented, can and should be nominated to the National Register. SS *Republic*, a Gulf-bound steamship (heading to New Orleans) falls within the scope and defined boundaries for the Bureau of Ocean Energy Management’s nineteenth century wrecks multiple property submission (Delgado, Ford and Brennan 2024). We also believe that it retains sufficient integrity as an archaeological and historical society to merit listing under Criterion D.

Similarly, another shipwreck located by Odyssey Marine, while searching for SS *Republic*, also lies within the Gulf Stream and rests on the Blake Plateau, the “Jacksonville Blue China Shipwreck” (BA02), a mid-nineteenth century wooden sailing vessel, likely a coastal trader, with visible remains forming a wreck site some thirty by ten meters. Despite the “Jacksonville” name, the wreck is noted as lying approximately “370 m below the Atlantic Ocean, and within the body of the Gulf Stream current off the Florida/Georgia coast” (Tolson 2010: 150). Subsequent publications note the depth as 367 m and place it on the Blake Plateau (Gerth and Dobson 2011: 144, 149).

The wreck was brought to Odyssey’s attention when a trawler snagged a glazed earthenware jar and Odyssey subsequently filed a claim in admiralty to be salvor-in-possession in 2003 (Gerth and Dobson 2011: 143). Two iron anchors at the bow, iron concretions, and “highly visible stacks of blue shell-edged ware” were visible on the wreck. Subsequent investigation in 2005 noted a larger assemblage of ceramics, bottles, “small kegs of what appeared to be white lead” glassware and navigational instruments (Tolson 2010: 153–154). Odyssey collected “a cross-section of artifacts” after completing a photomosaic of

the wreck, and the range of material culture initially dated it to c. 1840–1860 (Tolson 2010:154). Subsequent analysis now suggests a c. 1850–1860 date, and possibly a loss associated with storms in September 1854; “The vessel appears to be a two-masted schooner typical of the East Coast’s thriving regional maritime trade based in New York” thanks to the packet trade with Great Britain (Gerth and Dobson 2011: 143).

As of 2011, the wreck was seen as archaeologically significant as it reflected “the most common form of coastal trade conducted by schooner between New York and the southern ports of Savannah, Charleston and New Orleans that were the economic life force of New York... The wreck at Site BA02 currently stands as the sole archaeological representative of this voluminous mercantile operator,” an American two-masted coastal schooner and possibly a schooner engaged in trade with ceramic goods that originally arrived from Britain on a packet (Gerth et al. 2011:213; also see Gerth 2011; Sudbury and Gerth 2011; Gerth and Lindsay 2011). Like *SS Republic*, the Jacksonville Blue China Shipwreck is connected to the Gulf Stream ocean highway and the Blake Plateau as a major portion of that highway where shipwrecks not only occurred but where shipwrecks also now rest as tangible cultural resources. It is in our opinion eligible for listing in the National Register of Historic Places, as an example of maritime trade in that period of economic growth and expansion, and as an archaeological site of both a type of vessel no longer extant afloat, but also of a cargo that speaks to trade good coming from Great Britain, China and likely from a northern U.S. or British port.

Another wreck encountered and examined by non-archaeologists is that of *SS Central America*. Built in 1852 as *SS George Law* for the US Mail Steamship Company and renamed *SS Central America*, the steamer was lost in the Gulf Stream on a voyage from Aspinwall (Colon), Panama to New York. The ship was caught in a hurricane and systematically battered until it sank on the evening of 12 September 1857. A tragic loss (with 425 deaths) and \$1189,000 in manifested gold, as well as passenger baggage (Delgado 1990; Klare 1991; Delgado et al. 2016), the wreck was a national tragedy and ultimately inspired a search to recover its gold that ultimately succeeded in the 1988 discovery by the Columbus America Discovery Group (CADG) (Fig. 10).

It is reported as resting on the Blake Plateau, variously described as either 200 nm east of Charleston in 1.5 miles of water (Stone 1992, 2010) or in 2,200 m of water, 270 km off Cape Fear, North Carolina (Herdendorf 1995). The discovery came after the find of another mid- nineteenth century wreck in the same area that was not *Central America* for which there is no further publicly disclosed information. The recovery of a large amount of gold, both bars and coin as well as a range of artifacts that included passenger baggage, between 1988 and 1991 led to expensive litigation with the insurance companies that had insured *Central America* in 1857, followed later by litigation between backers of the expedition and the founder of the Columbus America Discovery Group. A return expedition to the site in 2014, undertaken by Odyssey Marine Exploration, and ordered by the court, recovered more gold bars, over fifteen thousand gold coins, which were sold at auction to satisfy creditors of CADG.

In December 2022 and March 2023, the shipwreck artifacts recovered from *SS Central America* went to auction and were sold. They included a large number of ship’s papers that had survived in the purser’s safe, luggage tags, hardware, steam gauges, copper hull sheathing, pieces of coal, ceramics, glassware, bottles, pistols, powder flasks, passenger possessions, including complete trunks with contents including clothing, daguerreotypes with surviving images, and jewelry—were put on sale. The illustrated catalogs of the sale may be the only publicly accessible record and assessment of the assemblage from this site; the thoroughness of the salvage work in 1988–1991 and 2014 may have left only the major



Fig. 10 The sinking of SS *Central America*, as depicted on the front page of Frank Leslie's Illustrated Newspaper, October 3, 1857. Library of Congress, <http://hdl.loc.gov/loc.pnp/cph.3b38388>

components of the wreck, and with much of the material culture apparently recovered and sold individually or in lots, the opportunity to do a more complete archaeological assessment and restudy is lost. *Central America*, however, is another example of shipwreck presence and significance on the Blake Plateau. The other wreck located by Odyssey Marine during the search for *Central America* is undocumented, as is its exact location.

Another site found and subjected to salvage is known as the “Coconut Wreck,” an early nineteenth century vessel initially discovered as a sonar target during a deep-water search of the “Blake Abyssal Plain” at 4800 km for the space capsule Liberty Bell 7, which sank after reentry in 1961. Based on the group’s description of its location in relation to the Bahamas and Bermuda, the wreck is likely on the Blake Plateau near its eastern edge. The discovery of the capsule in 1999 focused the attention on it, but the sonar target and the thought it might be a colonial era Spanish wreck with treasure led to a private venture to investigate the sonar target with the Mir One and Mir Two submersibles from the Shirsov Institute of Oceanology, then engaged in tourism dives to *Titanic* and the German battleship *Bismarck* (Walsh 2011). The dives in July 2000 led to detailed photomapping by the Shirsov science team of the intact lower hull, sheathed in copper, with coconut shells, alcoholic beverage bottles, ceramics, navigational instruments, and a large number of silver coins.

The team worked for two days and recovered c. 500 coins, all silver and Spanish, dated between 1798 and 1810, two octants, two flintlock pistols, and a gold snuff box with thirteen Spanish, French and Portuguese gold coins; in all, more than one hundred artifacts and 1,315 coins were recovered (Walsh 2001:26–27). The discovery of intact and legible newspaper wrapped around the gold coins in the snuff box found that it was specifically a series of advertisements advertising the sale of enslaved men in Kingston, Jamaica on 3 October 1809 (Wash and Concannon 2001:26). This led the expedition leaders to speculate that:

This slip of paper provided a tantalizing clue to the origin of the ship. It certainly proved that the ship or a member of its crew had been in Jamaica in late 1809. Could this paper be a description of the ship’s prior cargo? Was the ship heading north to colder climes with an exotic cargo of coconuts and liquor after dropping of its human cargo in Jamaica? Perhaps the ship was engaged in the triangular trade between Great Britain, the Caribbean and West Africa? Without evidence, we can only speculate. However, the ship’s rakish lines, the presence of slave coins and the newspaper support the theory that it could have been engaged in the slave trade (Walsh 2011:27).

An alternate hypothesis was that “this little cargo vessel provided a good cross-section of early- nineteenth century maritime trade in this region... And that considering where she sank, she probably traded between the Caribbean, Bermuda and the southeast coast of the United States. The best guess is that she was dismasted and sank in heavy weather while enroute to Bermuda sometime in 1810” (Walsh 2001: 12).

The gold coins were sold at auction in 2008 (Stack’s 2008:234–236), and the silver coins were subsequently offered for sale by the same dealer, who offers coins from SS *Republic* and SS *New York* on other sites and as of 2022 was selling coins from the site. That dealer also sold the gold snuff box from the wreck in a 2010 auction. An online search for an academic or scientifically focused, or peer-reviewed report on the site and the assemblage of “more than one hundred” artifacts did not locate one, nor a photo or orthomosaic of the site. Like SS *Central America*, the site may or may not retain sufficient integrity to be considered for National Register nomination, but it, like the others, does document the presence of shipwrecks on the Blake Plateau. Ultimately, it is important to note that the



Fig. 11 Winslow Homer, "The Gulf Stream." (Metropolitan Museum of Art/Wikimedia Commons)

significance of the wrecks that occurred on this aquatic highway had meaning in terms of individual lives lost, not in regard to treasure or artifacts, but in the family connections to these vessels, not all of which were noted in contemporary media, but were remembered for generations by families. Winslow Homer's "The Gulf Stream" serves as a powerful reminder of what likely were many such shipwrecks (Fig. 11).

Conclusions

Considerations for additional research, as well as designating the Blake Plateau as an off-shore area worthy of national protection are powerfully supported by the exceptional significance of its cultural resources. There is also an extensive and diverse human history associated with the Gulf Stream and the waters that flow over the Blake Plateau and its surrounding seabed. The human history spans some five centuries with a variety of activities and events, both ordinary and extraordinary, within a variety of contexts. These contexts represent a broad spectrum of how this ocean region was utilized by humans for a multitude of actions, the material evidence for some which now lies below on the seafloor, both in terms of shipwrecks and other submerged aspects of the maritime past. Some of these cultural connections are tangible, others are intangible. This includes historical events, both common, and others unique, that speak to the beliefs, interests and actions of those who sailed on these waters. The seabed of the Blake Plateau is both a museum as well as a maritime graveyard with direct and powerful meaning to diverse groups of people. The cultural history of the Blake Plateau is another compelling reason to continue studying it while protecting it.

Acknowledgements The authors gratefully acknowledge sponsorship of the paper that served as the basis of this article by the Natural Resources Defense Council, and especially to Lisa Suatoni of the NRDC. We

also appreciate the review of the draft document by Lisa Suatoni, Jonathan Howard, Sarah Chasis, and Hermina Glass-Hill. Some of the research used in the preparation of this article was, in part, funded as part of another project by the United States Bureau of Ocean Energy Management (BOEM) investigating the maritime aspects of the Gulf of Mexico in the nineteenth century. We gratefully acknowledge the support of the National Oceanic and Atmospheric Administration (NOAA)’s Office of Ocean Exploration and Research in their missions to the wrecks of the SS *Bloody Marsh* and the Blake Ridge Wreck, and the production of the orthomosaic of the Blake Ridge Wreck as part of that NOAA project by archaeologist Scott Sorset of BOEM. The Blake Ridge is the subject of another article recently (2024) published in the *Journal of Maritime Archaeology*.

Author Contributions JPD wrote 85% of the article, KS wrote 5%, QQMLG wrote 3%, MLB wrote 5% and JVH wrote 2%

Funding National Resources Defense Council

Data Availability No datasets were generated or analysed during the current study.

Declarations

Conflict of interest The authors declare no competing interests.

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