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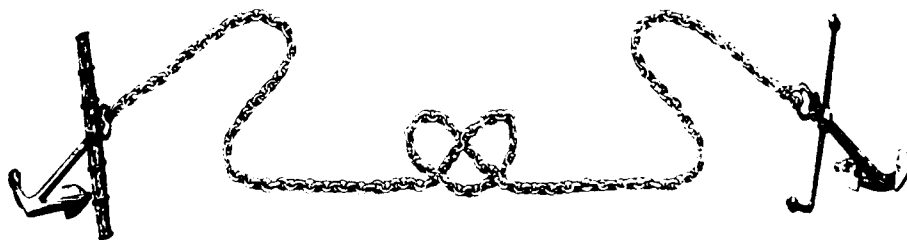
Fouled Anchors: The *Constellation* Question Answered

by

Dana M. Wegner

with appendices by

Colan Ratliff and Kevin Lynaugh



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Fouled Anchors: The *Constellation* Question Answered

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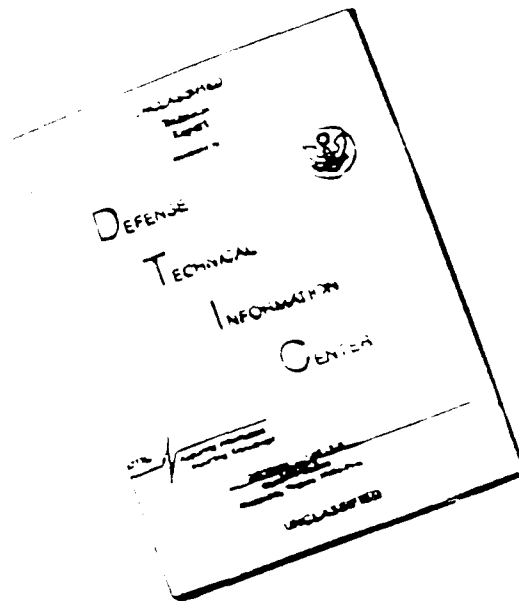
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19. ABSTRACT (Continue on reverse if necessary and identify by block number) The first <i>Constellation</i>, was designed by Joshua Humphreys and Josiah Fox in 1795 and built by David Stodder in Baltimore. Completed in 1797, it saw considerable service before it was brought to Gosport Navy Yard, then dismantled in 1853 and her timbers auctioned off. At about the same time, the second <i>Constellation</i> was built in Gosport about 600 feet away. The second <i>Constellation</i> was designed by U.S. naval constructor John Lenthall as a completely new ship. The new ship was built simultaneously with the destruction of the old, and employed the old name. The second <i>Constellation</i> was commissioned in 1855 and saw long service but by 1909 the Navy had confused the 1855 ship with the 1797 one. In 1946 the Navy decided to scrap the ship but citizens, especially from Baltimore, pressed to save her. In 1948 Howard I. Chapelle, a well-known naval architectural historian, revealed that the present ship was built in 1855. The public was confused and turned to the Navy for advice. The Navy did not investigate historical records thoroughly at this time. It based its opinion on the negative findings that it could not locate a document which specifically said that the first <i>Constellation</i> had been destroyed, therefore the Navy had to presume that the present ship was built in 1797. (Continued on next page)			
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A number of people became very emotionally attached to the preservation of ship notable among these being Leonard Cushing, a naval architect in Boston. In 1949 Howard Chapelle's book *The History of the Sailing Navy* was published and Leonard Cushing attacked Chapelle's findings triggering the long heated debate over the true age of *Constellation* in the press, television, and books. The ship was brought to Baltimore in 1955 and turned over to the *Constellation* Committee of the Flag House Association for public display. In response to Howard Chapelle's repeated attacks a scholarly magazine article was published in 1961. A few years later Howard Chapelle learned that many of the documents the article used as proof were probably forgeries.

In 1959 Leon D. Pollard replaced Leonard Cushing as architect and historian of the ship for the *Constellation* Committee in Baltimore. He wrote several books and papers defending the 1797 origin of the ship and also developed plans for removing and replacing certain portions of the ship to make it look like the warship of the 1812-15 period.

Since 1961 many of the documents supporting the 1797 origin of the ship have been reviewed by the Navy's Naval History Division, Howard Chapelle, Leon Pollard and others and have been found to be forgeries. Some of the forgeries had been planted in archives and continue to be erroneously considered bona fide.

This report examines the history of the argument and draws together for the first time many independent discoveries of forgery. Added to the study's verification of the faking of several key documents, the body of forgery surrounding the authentication of the *Constellation* was formidable; probably 25 to 30 documents and altered drawings. The FBI and Bureau of Alcohol, Tobacco and Firearms aided in identifying some of the forgeries.

Critical in triggering this study was the location and investigation by David Taylor Research Center staff of the designer's half model representing the second *Constellation* adding strong evidence that the vessel was an entirely new design of 1853. Advanced computer studies verified the fact that the shape of the old *Constellation* of 1797 did not in any way match that of the new ship of 1855.

The located documentary, technical, and artifactual historical evidence indicates in this report that the *Constellation* displayed today was built using essentially new materials to a totally new design at the Gosport Navy Yard near Norfolk, Virginia in 1853-55.

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PREFACE

The USS *Constellation*, said to have been built in Baltimore in 1797, was transferred in 1955 by the Navy to a group of Baltimore citizens for preservation and display. Since 1947 some historians have believed the ship now on display is an entirely different warship with the same name built near Norfolk, Virginia in 1855. Others disagree. Was it built in 1797 or is the claim a mistake or a hoax? Despite the debate, millions of federal, state, and city dollars plus gifts-in-kind have been granted by individuals, patriotic groups, tourists, and corporations to support the ship's upkeep and restoration.

The controversy over the age of the existing *Constellation* has been waged in newspapers, on television, and in books for almost half a century. The Navy and the Interior departments, Congress, the Maryland state legislature, the City of Baltimore, the Maryland Historical Society, the National Archives, and the Smithsonian Institution have all been involved in the dispute.

The purpose of this study has been to utilize an interdisciplinary team to examine new evidence in order to determine the identity of the present *Constellation*: was it built in 1797 or 1855? Recognizing the controversy as one of the most emotionally-charged debates in recent American maritime history, we would not have exhumed and exacerbated this subject had we not discovered fresh and considerably important historical, artifactual and technological evidence. Is the *Constellation* the oldest warship afloat in the world? Or is it the last sail-only warship designed by the Navy? Responsible stewardship for the irreplaceable ship afloat in Baltimore demands that we fully understand its history.

The study concludes that available documentary, artifactual, and architectural evidence indicates the frigate *Constellation* was built in 1796-97 and torn apart in 1853. In 1853-55 a new sloop-of-war named *Constellation* was designed and built. It is the new sloop-of-war which is displayed today.

Regardless of whether the ship was built in 1797 or 1855 the *Constellation* of today is an artifact of first importance that truly deserves to be preserved and displayed for the American public.

Part I of this study is a very brief specific history of the ship followed by a review of the debate over authenticity from 1947 until 1975. Major figures in the battle include Howard I. Chapelle, Leon D. Polland, Marion V. Brewington, William A. Baker, John Lyman and Admiral Ernest M. Eller. A modern study of the argument must account for the documentation each researcher used in reaching his conclusions. Until discovery of a large body of important records in private hands, much of that documentation has been obscured from scholarly examination. This review also includes an account of how the actual age of the vessel became clouded. Part Two of the study documents the efforts and findings of a team of researchers at the David Taylor Research Center assembled to investigate the documentary, artifactual and architectural evidence relating to the problem. The Federal Bureau of Investigation, the Bureau of Alcohol, Tobacco and Firearms and several other agencies also aided in the examination.

Appendix A is a reconstruction of 19th century naval architectural standards and techniques. One result is a new way to compare the developing designs of early wooden warships based on displacement and hydrodynamics rather than the traditional comparisons of tonnage, guns, decks, and length. This new mode of comparison is applied to examining the design of the *Constellation* in 1795 and in 1853. Appendix B provides a similar examination of the hydrodynamic design of the ship from a modern perspective using state-of-the-art computers.

In order to avoid overburdening the matter, a number of technical points of contention have been omitted as being repetitive or less germane. We did study all of the available evidence but have depicted only selected threads which run through the story. For those interested in more detail we urge that the end notes be regularly consulted.

The implications developed by the findings of this study have been considerably more significant than merely establishing the age of the vessel. A deliberate undertaking in interdisciplinary team-oriented approach, computer-aided historical documentation, and modern technology used to solve an historical problem, this study may prove a startling and important account for administrators, historians, archivists, curators, and all those involved with decisions regarding historic maritime preservation.

* * * * *

PART I
HISTORY

THE CONSTELLATION, 1794 - 1845

Authorized by Congress on March 27, 1794, the frigate *Constellation* was designed in Philadelphia by Joshua Humphreys who was assisted and advised by Josiah Fox. The designed 36-gun ship was a near duplicate of the *Congress* and a smaller-sized version of the 44-gun frigates *Constitution*, *President*, *United States*. Construction of the ships was under the direction of the War Department in various locations along the eastern seaboard.¹

To monitor the widespread shipyards a system of centralized management was established. All requests for deviations from the provided designs were required in writing addressed to the Secretary of War who consulted Humphreys before written approval was returned. Each yard was assigned a naval agent to watch over the public interest and to approve disbursements. Each had a naval officer to superintend the construction of the ship, to employ the labor force, and to certify that Humphreys' designs were followed. Each yard had a constructor charged with building the ship and a naval clerk to tabulate and disburse money for goods and services. All disbursements had to be signed by the constructor and the superintendent.²

The *Constellation* was built at Samuel and Joseph Sterrett's private shipyard on Harris Creek in Baltimore, Maryland. She was shepherded by superintendent Captain Thomas Truxtun, who would be her first commanding officer and by constructor David Stodder. The Sterretts acted as naval agents. Humphreys' final plans were drafted by William Doughty, clerk of Humphreys' yard in Philadelphia and completed on January 15, 1795. Following lofting, moulds were prepared and drawings were shipped in a tin case from Philadelphia to the naval agent in Baltimore. In no uncertain terms all superintendents, constructors, and agents were initially ordered, then repeatedly reminded, that there were to be no unapproved deviations from the master plans and specifications. Indeed, some deviations in the specifications were proposed by some superintendents and Humphreys was consulted before the Secretary approved. Conforming closely to Humphreys' master plan and specifications throughout her building, the *Constellation* was laid down in 1796 and commissioned June 26, 1798. She had been the second of the Humphreys' frigates to be launched. Some weeks later the *Constitution* was launched, beginning a two-century rivalry over funding and national affection.³

Within two years after her commissioning, the *Constellation* participated in the naval war with France and captured the frigate *L'Insurgente* in 1799 and two French privateers. After the war she was accidentally laid over in the Delaware River and severely damaged. Following extensive repair she did little of note and was placed in ordinary in 1812. At the Washington Navy Yard she was again repaired in 1812-13 but was blockaded and saw no significant service in the War of 1812. In 1815 she saw action against the Barbary powers and then led a routine peacetime career—considered "varied and colorful" by the Navy. Some documentation indicates that she had been repaired in 1801, 1812-13, 1828-29, 1832, 1834-35 and 1838-39. At sometime during these repair periods her beam had been nominally increased 14 inches, probably by the addition of some thicker planks to compensate for the severe damage which occurred when she was accidentally laid over in 1801. She was laid up in ordinary at the Gosport Navy Yard in 1845.⁴

* * * * *

GOSPORT, NAVY YARD, 1845 - 1855

With the introduction of the shell gun and steam propulsion it was clear that the future of frigates and ships-of-the-line was limited. Consequently, the yards' stockpiles of spare structural timbers for both repair and new construction of such vessels were large and potentially surplus. By 1853 the Navy realized the poor condition and antiquated design of the *Constellation* and decided to dismantle the ship and build a new one.⁵

The foresighted provision for the Gradual Increase of the Navy had its roots in the years following the British blockade during the War of 1812. A little acknowledged but important legislative contribution to the welfare of our Navy, this Act of April 29, 1816 provided \$1,000,000 a year for eight consecutive years to purchase timber and build a fleet of ships to be kept ready on stocks. Five years into the program the amount provided was adjusted downward to \$500,000 a year. The "Act for the Gradual Improvement of the Navy of the United States" was readily renewed by Congress on March 3, 1827, now authorizing the President to procure substantial amounts of live oak timber each year to be placed in stockpile. \$500,000 per year for each of six consecutive years was granted at a time when the national debt was \$10,000,000. In 1827 Congress believed no new ships needed to be built immediately but they were told the oak could be safely stored in sheds or submerged for as long as a century. Funds under this appropriation could not be applied for other purposes, nor could the funds be declared surplus. If not spent, money in the appropriation could be accumulated and carried over from year to year. The Gradual Increase act was renewed for another six years in 1833. Beginning in 1840, the appropriation was renewed annually in the regular naval appropriation acts with language also permitting other timber, repairs and armament for ships. The Navy called the appropriation "Gradual Increase, Repairs, Etc."⁶

Suitable live oak timber was an essential material for naval shipbuilding and obtaining it took a long time. For specific ships, sets of full-sized templates called "rough moulds" and "bevels" representing the components of each ship's frames were transported to the contractors: "live oakers," who encamped in swampy largely uninhabited areas initially along the South Carolina, Georgia, and Florida coasts. In the field, the rough moulds were matched directly to specific parts of individual trees. The trees were felled and dressed on the spot to rough mould size with adzs, marked, then hauled by oxen to piers where they were loaded on coastal vessels for delivery to the yards. Live oak, prized for its iron-like strength was best harvested from December to March when the sap made the wood easier to cut.⁷

Beginning in 1816, but primarily between 1827 and 1839, stockpiles of live oak deposited at the navy yards were developed for each type of vessel: ships-of-the-line, frigates, sloops, steamers, and brigs. The hull form within each type of ship was relatively similar and each stockpile therefore embodied generically pre-shaped or "moulded" pieces for frames or embodied pieces, which were not specifically pre-shaped, called "promiscuous timber." Keels, keelsons and beams for each type ship were also stockpiled. Stored segregated and submerged in timber ponds or under sheds, spare frame components for each type ship awaited until needed. Live oak framing timber could be stored safely for decades. In July 1853, at the Gosport Navy Yard near Norfolk, Virginia the stockpile included, for example, 90,400 cubic feet of precut frame components and 10 full sets of beams just for ships-of-the-line, 15,172 cubic feet of precut framing timber for sloops and 7 complete sets of keelsons for sloops. Building a new ship from stock-

piled pieces, especially obsolete pieces, would have been an ideal method of drawing down the supplies to a more economical level — a trend which had been in evidence for several years prior to 1853.⁸

The Navy was free to utilize the stockpile of live oak and could cover its labor costs from the Gradual Increase annual appropriation. The Act of March 3, 1827, clearly permitted it. However, both Congress and the Navy Department were sensitive to the long-term costs of maintaining and manning ships. In 1851, there was little interest in vastly increasing the size of the fleet. Aware of progress by other nations, the Navy wanted instead to improve the quality of its vessels. With no apparent pretention of secrecy, the Navy chose to substitute a new sloop-of-war named *Constellation* for an old frigate with the same venerable name. The old ship had been laid up at Gosport for eight years and the timber stockpile at that yard was more than ample. All charges to the Gradual Increase appropriation were meticulously tabulated by Navy agents and pursers and reported to the fourth auditor of the U.S. Treasury (known as "the Navy Accountant") and then the Second Comptroller of the U.S. Treasury. The annual costs, by law, were reported directly to Congress by the Secretary of the Navy. Probably a fresh sailing ship with auxiliary steam propulsion was preferred. However, purchasing boilers and engines for a steamer required Congressional funding and several new steamers were already under construction supported by specific appropriations. The new *Constellation* would represent the best sail-only design available—she would be a sloop-of-war capable of good speed, tremendous range and the equal of any sailing warship of her type in 1851. The Navy had no real strategic plans but it was clear that for distant cruising, reliable and inexpensive sail was still competitive with coal-gobbling steamers.⁹

From mid-November until early December 1852, tons of iron ballast were hoisted from the old *Constellation*'s hold onto a dock and moved into the Gosport yard. With several jobs to do, work crews were frequently diverted to different projects leaving other projects already in progress idle. In preparation for hauling the ship out of the water dimensions were probably taken from the keel. The original building plans of 1795 could only be used to a limited extent because the old ship had sagged or "hogged" and had somewhat twisted in shape over the years. On February 22, 1853, the old frigate was moved from the dock to the North Slip and the following day at 1:00 pm was hauled out of the water and up the masonry-faced incline into the weather. A drawing was made of the shape of the ship's hull to probably aid in placing shoring required to hold the vessel upright. The dismantling progressed and on May 15 crews began cutting up the timbers of the old frigate. Hundreds of pounds of copper, brass, and iron pieces which could be melted for scrap and 22,940 pounds of wrought iron ballast were accumulated and turned in to the storekeeper. On September 12, 1853, the Commandant of the yard wrote to the Secretary of the Navy and asked for permission to auction off the old timbers.¹⁰ The frigate *Constellation* clearly was no more.

With the help of Edward Delano, the naval constructor assigned to Gosport, Chief Constructor John Lenthall prepared his new design in Washington. Probably designing within the size and shape limits of the live oak stockpile, Lenthall executed a preliminary drawing in June 1853 then a pine half model in 3 feet to 1-inch scale. The half model was sent to the Gosport mould loft where loftsmen would have disassembled the model, traced its components, and used the tracings to scale-up and develop the graceful curve of each frame full-size on the huge mould loft floor. As each frame was developed on

the floor, measurements as accurate as 1/8 of an inch were recorded in tabular form which produced "offset tables" that recorded the size and shape of every frame that comprised the hull of the new ship. Outside, the old *Constellation* was being dismantled. Later, in 1855, when details had been completed at the yard and the new ship was done, a finished drawing would be executed giving a visual representation to the hundreds of measurements recorded in the offset tables. After designing the *Constellation*, Lenthall would soon begin his designs for the screw frigate *Franklin*, like the *Constellation*, a "substitute" ship, and five screw frigates of the *Merrimack* class also built from timber stockpiles.¹¹

As the new *Constellation* was being designed, in late May 1853, workers began to search out and collect timbers for the new ship from the sheds and timber dock within the yard. On June 25, 1853, the timbers for the keel were carefully laid out or "placed" in Shiphouse B—a large enclosed building some 600 feet on foot from the North Slip, where the old ship was being destroyed. On August 27, the sternpost was raised and a few weeks later, the stem. Nine pieces of keel timber were used: five pieces selected from the old ship—of—the-line stockpile, three pieces of frigate, and a single piece of more precious sloop material. Totalling 1277 cubic feet, the quantity of timber withdrawn was over 150 percent of the amount necessary to build a finished keel, stem, and sternpost for the sloop.¹²

Following suit, timber was withdrawn from various storage areas for frames and beams. Upon completion, some 16,387 cubic feet of live oak framing timber was withdrawn from the stockpiles, about 78 percent of which was promiscuous. Planking was not stockpiled but withdrawn according to thickness from regular stores. As each material was used, the quantity was reported to the storekeeper who sent monthly reports to the Bureau of Construction, Equipment and Repair. The storekeeper kept an accurate account of the type and quantity of materials dispensed as well as their Gradual Increase appropriation costs which would be reported monthly to the Department of the Treasury. He distinguished between stockpiled framing, spars, and keel members as well as pre-used and new materials. The only pre-used materials employed were 204 white oak knees drawn from stock. There was no evidence that any material was transferred directly from the old ship to the new.¹³

On August 26, 1854, at 11:45 am, the "new sloop of war" *Constellation* was launched from Shiphouse B. Arming, masting, and rigging followed. Like framing timbers, the masting was built up from assorted spars retained for ships—of—the-line, frigates, and sloops. In the end she was twelve feet longer and the same nominal beam as the previous *Constellation*. The new ship was commissioned on July 28, 1855. It would be the last warship powered by only sails designed and built by the Navy.¹⁴

* * * * *

ORIGINS OF THE CONTROVERSY

The new, lighter and faster 22-gun sloop-of-war, "resplendent in her own accomplishments," did little of great significance and fell in and out of commission many times. Following repairs in 1893, at the Norfolk yard, the *Constellation* was towed to the Naval Station at Newport, Rhode Island, where she would continue to serve as a school and receiving ship until 1914. Tentative plans had been made to tow the ship to Baltimore for the centennial celebration of the Battle of North Point and the writing of "Star Spangled Banner." On June 13, 1913, Assistant Secretary of the Navy Franklin D. Roosevelt had directed that a board be assembled from personnel of the New York Navy Yard to determine the cost to refit the ship approximately as she appeared in 1814. When Secretary of the Navy Josephus Daniels spoke before the House of Representatives Committee on Naval Affairs in 1914, supporting a bill to fund restoration, he presented a brief history of the ship and a cost breakdown for removal of electric lights, plumbing, and heating devices, minimal repairs to the hull, and rearrangements to the interior, bridge, and spar deck. The New York Navy Yard board found the ship to be structurally sound, but with dry-rotted masts. They believed that the ship need not be greatly altered to serve the Baltimore celebration and afterwards for \$5000 could be returned to its former configuration to continue as a school ship. The total cost would be \$45,000.¹⁵

It is important to note that the history of the *Constellation* presented by Secretary Daniels did not mention the fact that the sloop to be altered in 1914 might not be the frigate built in 1797. Fifty-nine years had passed and institutional memory had faded. When listed in published Navy annual reports, from 1855 until 1908, the official record and several other authoritative references stated the ship was built at Norfolk in 1854. Without explanation the official records for 1909 onward stated she was built in Baltimore in 1797. It is clear that in 1914 concern that the vessel of 1914 was *not* the one built in Baltimore in 1797 was not expressed by historians, Congress, the press or the Secretary of the Navy.¹⁶

Further, the question of identity was not acknowledged by Franklin Roosevelt when his paper "Our First Frigates. Some Unpublished Facts About Their Construction," was presented in absentia to the Society of Naval Architects and Marine Engineers on December 10 or 11, 1914. Predominately a history of the politics and problems surrounding the design and building of the 44- and 36-gun frigates, Roosevelt detailed each of the ships equally and then blithely concluded "...the *Constitution* and the *Constellation*, are proudly carried on the rolls of the Navy to-day, one hundred and seventeen years after their launching."¹⁷ The question of the true age of the latter vessel apparently would not be realized for another three decades.

As planned, the ship was altered and towed to participate in the 1814 centenary in both Baltimore and Annapolis and was returned to Newport as a moored school ship. In 1926 she was towed to Philadelphia for display at the national sesquicentennial celebration, where she was publicly exhibited as having been built in Baltimore in 1797. In 1928, the Star-Spangled Banner Flag House Association, incorporated in 1927 by citizens active in the 1914 celebration, without success, approached the Secretary of the Navy to have her brought permanently to Baltimore. In 1934, she was deemed unseaworthy and could not be towed to Baltimore for the 300th anniversary of the founding of Maryland.¹⁸

In 1935 Representative John J. Cochran of Missouri introduced a bill in the House for federal funds to preserve the *Constellation* (1797/1855), *Constitution* (1797), *Hartford* (1859), *Olympia* (1895), and *America* (1851). The bill passed the House but not the Senate and next year a second attempt was mounted. President Roosevelt favored placing all five ships on display in the Potomac River at Washington but the effort was scuttled by squabbling between Newport and Baltimore as to which was a more appropriate site. Beginning with his election in that same year, Senator George L. Radcliffe of Maryland frequently, but with no result, reminded Congress that the *Constellation* should be brought "home" to Baltimore.¹⁹

Recommissioned in August of 1940, given the hull number IX-20 on January 8, 1941, the ship was used as a "shore-based relief flagship" for the Commander-in-Chief of the Atlantic Fleet from 1941 until 1943. Life aboard the moored flagship must have been dismal for she had been last dry docked for repairs in Philadelphia for ten days in November of 1926. An inspection team in April 1941, found many of the frames rotten, hull caulking and copper loose, and numerous leaks requiring daily pumping. Nevertheless, the team had no recommendations as to action to be taken to preserve or repair the relic.²⁰

On August 5, 1946, the Navy announced that the *Constellation* would be towed from Newport to the Boston Naval Shipyard and moored near the *Constitution*, where she would be dry docked to determine the feasibility and cost of making her into a "permanent relic," awaiting the creation of a national military museum in Washington. Postwar fiscal austerity had set in and the Navy found itself strapped for funds for upkeep of a small flotilla of rapidly deteriorating old ships including the *Hartford*, *Olympia*, *Oregon* (1896), *Constitution*, and *Constellation*. The remains of the yacht *America* had been tragically lost in 1942. Within a month of the Navy announcement, Maryland Senator George L. Radcliffe lobbied President Truman for the return of the ship to Baltimore. Nothing was done. Patriotic bills were introduced in both the House and Senate later when it was found that the Navy had decided to save the *Constitution*, and cut up the *Constellation* for tokens and souvenirs just prior to her supposed sesquicentennial birthday. Both houses voted and disagreed on amendments to the *Constellation* Preservation Bill and the matter was sent to conference. Resulting Public Law 442 of March 13, 1948 directed the Secretary of the Navy to repair, equip, and restore the frigate *Constellation* when 75 percent of the estimated costs had been received from private donations.²¹

EARLY HINT OF TROUBLE

A scant three days after the passage of Public Law 442 a small article appeared in the *Washington Star*. The reporter acknowledged that an authority on old naval ships maintained "...that the existing *Constellation* was built in Norfolk in 1853-54 and that the original ship, built in Baltimore in 1797, was broken up in the late 1850's and only the name retained.... there seems to be no reason to suppose that there is a single stick or fastening in the existing ship that had any relation to Baltimore." Secretary of the Navy John L. Sullivan had yet to convene a group of citizens and naval personalities to assist in raising funds to restore the ship but the Navy was already sticking by its guns in asserting the ship was the oldest vessel in the Navy because they could find no proof that the old ship had ever been scrapped. It had merely been extensively repaired or rebuilt at

Gosport. The Navy spokesman conceded that the claimant, Howard Chapelle, was "a naval architect of note and an authority on old ships."²²

Howard I. Chapelle had been born in Tolland, Massachusetts in 1901. A sailor since his teens, he learned naval architecture by working at many well-known ship and boat yards, culminating with his own boat design business in 1930. His long-term specialty emerged as the documentation of historic American ship design, primarily through ships plans. In 1924 he visited England to study admiralty draughts, the "blueprints" of English and some American ships, and would return overseas as a Guggenheim Fellow in 1950. In 1930 his premier published work on the history of the design of Baltimore clippers established his style and his reputation as an observant and skilled plans analyzer. During 1936 and 1937 he was hired by the federal government as survey director of the Historic American Merchant Marine Survey in the New England regions, and he directed the location and architectural recording of dozens of regional commercial sail and motor craft in the nation's first attempt at maritime preservation. Moving to Cambridge, Maryland in 1941, he enlisted in the U.S. Army Transportation Corps, rising to the rank of lieutenant colonel by 1946. His views, though not apparently disturbing to the Navy, initially, would have to be faced.²³

Within the organization of the Chief of Naval Operations was the Naval Records and History Division. The director, Capt. John B. Heffernan, assigned a public affairs officer, Ensign William J. McKeon, to research the repair records of the *Constellation*. McKeon and Heffernan publicly concluded that the cost of the 1853 rebuild was less than the cost of a new ship and again asserted that there were no records indicating the old ship had been scrapped. At the same time, the Secretary of the Navy's advisory committee, created under Public Law 442, believed that at least the keel of the current ship was authentic.²⁴

On April 16, 1948, engineer Leonard Cushing from the Design Section of the Boston Naval Shipyard (part of the Bureau of Ships) was tasked with determining the quantity of timber required for replacement and with preparing drawings for potential restoration. Historic plans were accumulated, a midships section was developed from the 1795 plans and sources for live oak timber investigated. It was estimated that \$1,000,000 would be required to restore the ship. Secretary of the Navy Sullivan invited all citizens to make personal donations towards the \$750,000 public goal under Public Law 442. However, funds raised for the ship were abysmally poor. By the following year less than \$100 had been collected and consideration was given to request a bail-out from Congress.²⁵

By late March 1949 technical historical problems with the ship had been encountered by the Navy. The length and beam of the ship were found to be greater than the 1795 plans indicated. Published materials in libraries were consulted and attention was focused on what was considered by the Bureau of Ships to be a "partial rebuilding" at Gosport, 1853-55. The Bureau of Ships was in charge of building and maintaining all the Navy's ships. Unaware that there might have been two *Constellations*, the Bureau was chiefly concerned that restoration plans and finances not require that the vessel be chopped and shortened 12 feet and narrowed 14 inches. However, to Rear Admiral Wesley M. Hague, Commander of the Boston Naval Shipyard and an engineer, the disparity of dimensions signaled something more than a "partial rebuild" in 1853. Rear Admiral Hague had recently run across an editorial in an issue of *The American Neptune*

published by the Peabody Museum in nearby Salem, expressing concern that the Navy had not previously taken better care of the ship. Hague forwarded a copy of the editorial to his superior stating:

The enclosure constitutes, possibly, a preview of the criticisms which the Navy Department must be prepared to accept in the event that the proposed restoration of the "CONSTELLATION" is carried out. Since the ship was entirely rebuilt about 1855, with considerable change in its principal dimensions, thus rendering accurate restoration to the original design virtually impossible without complete rebuilding at prohibitive cost, it is anticipated that the contemplated restoration will not be fully acceptable to many who are sincerely interested in historical detail.²⁶

On April 3, 1949 an article titled "The *Constellation* Myth" appeared in the Rhode Island's *Providence Sunday Journal* authored by Howard Chapelle. In it he explained that he had been in Europe and upon returning was unaware of the pitch of emotion that had developed for obtaining a permanent berth for the ship in Baltimore. According to Chapelle, his notoriety escalated when he had the audacity to suggest that the *Constellation* was more appropriate for Norfolk and that Baltimore should pride itself on its Baltimore clipper types. Probably based on research prepared for his then current book *The History of the American Sailing Navy*, the bulk of the article was a general history of the ship offering several new insights into her design and placement in the history of American warship design. It was not the first time he had spoken out about the authenticity of the ship. His previous public revelations, two or three years earlier, failed to attract much attention.²⁷ This time was different.

Chapelle's contentions were broad based and simple. In the course of his examination of hundreds of ships plans and considerable data spanning the whole range of American sailing warships he had found several plans and the offsets for the *Constellation* of 1797. They were fully consistent with other ships of the day and similar to the *Constitution*, a comparable ship, still available for examination. He had also found an abundance of plans which he believed clearly documented the design and building of a new ship named "Constellation" in 1853. These plans did not show any attempt to reuse any portions of the old 1797 ship. Nor, in his experience, would anyone have bothered to extensively use old material in an all-new ship. Since, according to Navy lists, two *Constellations* did not exist simultaneously, the old ship must have been destroyed before the new one was completed. The *Constellation* of 1949 was consistent with the plans of 1853, but not with the plans of 1795 and only the most untrained eye could fail to see that the current single gun-deck sloop-of-war was at variance in size, shape, and design to the stout two gun-deck frigate of 1797. Chapelle's views were founded in interpretation of original ship's plans, offset data, and his acquired understanding of the wooden ship-building process. These were difficult ideas to communicate to the public and he probably knew it. He was not to substantially alter his beliefs at any time in the years to come. Referring to the 1853 "rebuild" and the continuity of the name "Constellation" Chapelle postulated:

It had been discovered, as early as 1820, that it was possible to "rebuild" an old ship by allowing other ships to go to pot, while diverting the maintenance funds allotted to these to "rebuilding" jobs. By this means a new ship could be turned out, and an unfriendly and parsimonious Congress be none the wiser. A lot

of acrimonious questions were avoided and good ships replaced old, worn-out crocks.

The lengthy article did reach Washington and become a matter of interest within the Bureau of Ships. In Boston, Rear Admiral Hague continued to gather data and express his doubts about the identity of the ship to his superiors.²⁸

Publication in 1949 of Chapelle's pioneering book *The History of the American Sailing Navy* brought the matter of the ship's identity to the nation. Expanded and more orderly than "Constellation Myth," his views were readily noted in the *Proceedings* of the U.S. Naval Institute, a respected publication read widely within the Navy. The direct effect upon the Navy of Chapelle's revelations has not been documented, but without donations under Public Law 442 by September 1951 the Navy had ceased restoration and maintenance of the ship. Some in Baltimore believed Chapelle's comments were directly responsible for the lack of public support. Restoration would require, by this time, two years in dry dock and \$3,461,250. Citing the "fact" that the present ship was apparently not the vessel of 1797, Admiral Hague's successor at the Boston Naval Shipyard did not recommend the expenditure of any time or money and requested an early decision from the Commandant of the First Naval District, Rear Admiral Hewlett Thebaud, as to her ultimate disposition. In his recommendations to the Chief of Naval Operations, Admiral William M. Fletcher, Rear Admiral Thebaud wrote, "The *Constellation*, the second ship of that name, built, according to my records, in 1854 after the first ship was stranded, is without historical importance.... It is recognized that the Chief of Naval Operations is aware of the condition of these two ships (*Constellation* and *Constitution*)... It is believed he is also aware of the fact that USF *Constellation* is not the original ship." Diverting all funds to the *Constitution*, Thebaud recommended that the *Constellation* be decommissioned and stripped of equipment.²⁹

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SAVE THE CONSTELLATION

The precarious future of the *Constellation* did not go unnoticed by Leonard F. Cushing, the engineer at the Boston Navy Yard charged with maintenance of the two frigates. Born in 1901 in Weymouth, Massachusetts, Cushing graduated from Bethlehem Steel's shipyard engineering training system in 1922. A specialist in warship salvage operations he became the Superintendent of Hull Architecture at the Boston Naval Shipyard in 1948.³⁰

Although interest had been repeatedly expressed by the *Baltimore Sun* newspapers and several civic groups throughout the decades before, by May 1953 a concerted last-ditch movement was afoot to save the ship and bring her to Baltimore. In the beginning, the movement consisted most actively of Cushing in Boston allied with a 24 year old Baltimore railroad clerk, Donald F. Stewart. Stewart was a gun and antique collector and former treasure hunter. A disarming and talkative native, he had lobbied the Baltimore City Council to pass an act calling upon all Maryland congressmen to work for the preservation and restoration of the ship. Aided by the influential Baltimore Association of Commerce and others, the movement gained in power. Lacking a plan and leadership the Association of Commerce approached the Maryland Historical Society. The Association, the Society, and Stewart carried on a flurry of correspondence with Cushing.³¹

By July two bills were before the U.S. House of Representatives. One bill devised by a representative from Rhode Island called for funding the restoration of the ship and berthing her at Newport. The other bill, H.R. 2316, called for the disposal of the *Hartford*, *Olympia*, *Oregon*, and *Constellation*. Citing the collapse of the provisions of Public Law 442 of 1948, the Navy recommended against restoring the *Constellation* and in favor of disposing of the four relics. Mitigating their seeming heartless position, the Navy turned attention to existing statutes which allowed the Secretary of the Navy to effectually donate the ships or their pieces to qualifying parties. The idea had been applied temporarily to the *Oregon* in 1925. Following the cue, an amalgamation of officials from Maryland, Baltimore, the Maryland Historical Society, the Daughters of the American Revolution, the Society of the War of 1812, the American Legion, and the Star Spangled Banner Flag House Association pressed the Secretary for the "return" of the ship to Baltimore where she would be berthed near Fort McHenry under the jurisdiction of the National Park Service. Maryland Congressman Samuel N. Friedel introduced still another bill directing the Navy to pay for and transport the ship to Baltimore and to establish a berth. For financial reasons the Navy strongly opposed Friedel's bill and continued to support H.R. 2316. In support of the act and probably to present a united front to the public the Director of Naval History continued to investigate the authenticity of the ship. On January 5, 1954 now Admiral John B. Heffernan, Director of the renamed Division of Naval History, issued an official "clarification" of the history of the ship over the signature of the Chief of Naval Operations so that questions of fact could be answered locally. The final released version was somewhat ambiguous but in general, accurate. Citing archival references, Heffernan briefly described various repairs and rebuilds in the ship's history. He quoted several early reports of the Secretary of the Navy and cited, without comment, Howard Chapelle's views from *The History of the American Sailing Navy*. Admiral Heffernan concluded,

It will be apparent from the facts set forth above that there was such an extensive rebuilding in 1852-53 that there are grounds for stating that the present ship dates from that period. Probably there are few, if any, timbers of 1797 in the present vessel.... In spite of all the facts recorded above, some persons contend that the present *Constellation*, as the direct inheritor of the old traditions, is, in spirit at least, the original one.

There followed a humorous anecdote serving to question just how much constitutes "original." Passage of H.R. 2316 seemed imminent and the four relics appeared destined to be scrapped for souvenirs. Donald Stewart stepped up his lobbying efforts in Washington and visited, he said, every senator from every state. He believed that should the bill pass the House it would not pass the Senate. At his own expense, he printed 25,000 paper placemats with the motto "Save the *Constellation*" and distributed them to roadside public restaurants and the Senate dining room.³²

Before the Senate hearings, on March 1, 1954 the Navy was firm in its position. Restoring the four ships and the *Constitution*, testified Rear Admiral Bernard E. Manseau, Acting Chief of the Bureau of Ships, would require \$35,000,000. *Constellation* alone would require \$46,000 a year to maintain after refurbishment. For that ship, Manseau testified, there was conflicting evidence as to her authenticity. By March 3 it was proposed that H.R. 2316 be amended to donate the *Constellation* to a group he called the *Constellation* Commission sponsored by the city of Baltimore and the state of Maryland. The petitioners, Manseau observed, seemed familiar with the question of identity and they seemed convinced the ship was genuine. Manseau understood the Office of the Chief of Naval Operations was making a thorough review of the extant evidence and he stated internally to another Navy office that the Bureau of Ships was

...of the opinion that only conclusive proof that the original *Constellation* was destroyed and that the rebuilt ship of 1854 bears no relationship to the original ship should induce the Navy to change its long-established opinion that the present-date *Constellation*, although repaired, converted and rebuilt over many years, is still the same historic ship in substance as well as in spirit. The adoption by the Navy of a different viewpoint at this late date would, it is believed, not only be most disillusioning to the American people, but might be construed as a means of resistance by the Navy to donation of the ship to Baltimore and might, in addition, impair the prospects for early passage of H.R. 2316.³³

While shipyard archives were culled for more historical evidence regarding authenticity, the controversy spilled once again into the press. Maryland Congressman James Devereaux introduced H.R. 8247 to the whole House calling for the Secretary of the Navy to donate any of the ships (except *Constitution*) to qualified applicants. Leonard Cushing, now an honorary citizen of Baltimore and accompanied by Donald Stewart and former senator George L. Radcliffe, President of the Maryland Historical Society, visited Washington to testify in support of H.R. 8247 and later viewed potential berthing sites near Fort McHenry. By March 18, 1954 the House Committee on Armed Forces submitted a report endorsing the idea of not voting on H.R. 2316, repealing Public Law 442 of 1948, and approving H.R. 8247. The report gave histories of all five historic vessels but did not mention the question of the *Constellation*'s identity. As the bill neared passage, the official Navy position was solidified with a well-waffled internal memo from Secretary of the Navy Robert Anderson on April 14 pronouncing,

"Nowhere in the records, however, is there any indication that the original *Constellation* launched in 1797 was in fact broken up...(and) in view of the...complete lack of official evidence to support disposal of the original *Constellation*, the Navy has no choice other than consider that the present *Constellation* was built in Baltimore in 1797....examination of all available evidence supports the belief generally held by the public that she is the same ship." The memo was not publicly released. Probably generally unnoticed was a brief article by Chapelle in the *Nautical Research Journal* in April 1954 entitled "Constellation: The Fraudulent Frigate".³⁴

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THE ASSOCIATION OF COMMERCE AND MARYLAND HISTORICAL SOCIETY INVESTIGATE, 1954

In Baltimore meanwhile, the Association of Commerce had begun its own historical investigation. Enclosing a bootleg copy of the Secretary of the Navy memo, Association Special Agent Ralph J. Robinson wrote Marion Vernon Brewington, Curator of the Maryland Historical Society's maritime collections and requested Brewington's suggestions for historical leads to investigate regarding the *Constellation*. Brewington had been born in 1902, received a B.S. degree at the University of Pennsylvania, and worked as an historian in the Naval Records and History Division during World War II. He subsequently served as Curator of the Naval Historical Foundation from 1946 until 1948. The Historical Foundation, a private association of friends of naval history, cooperated closely with but was not a part of Admiral Heffernan's division. Robinson was a history buff and apparently had some research experience. Brewington's amiable reply observed that the Secretary of the Navy's recent statement was merely "... a categorical statement of the Department's position. It offers no evidence of historical value and may or may not be based on a comprehensive search of the records." He also included a valuable list of potential sources and persons for Robinson to consult at the National Archives. Upon Robinson's arrival at the National Archives the naval records archivist, Florence Sharswood, an employee of Admiral Heffernan's, implied that as a result of Chapelle's claims all the leads recommended by Brewington had been checked by naval architect R.F. Good within the past year and that Good's findings did not support Chapelle. She offered to instead provide a copy of Good's special report which she claimed covered more ground than Brewington's suggestions. Sharswood indicated to Robinson that further searches at the Archives would be useless. Robinson then visited Admiral Heffernan who, according to the special agent, declared:

... he had had the material offered by Mr. Chapelle as proof that the vessel had lost her identity in her 1853 rebuilding examined by competent naval architects. This proof consisted of drawings which only naval architects were competent to understand. Their report, the Admiral declared, failed to justify the conclusion reached by Mr. Chapelle. While he respected Mr. Chapelle's ability, he said, he also had confidence in his own man, and could reach no other conclusion than that Mr. Chapelle had failed to prove his point. Further, that inasmuch as the Secretary of the Navy, following his report, and based on it, had officially placed the Navy's stamp of approval on the vessel, as far as the Navy was concerned, the matter was settled for all time. Any private opinion to the contrary would be only a private individual opinion, and would have no influence on the stand taken by the Navy. The Admiral seemed willing to discuss the basis of the Navy's findings with anyone trained in naval architecture, since the matter was technical, but assured me without qualification that the result could only be that reached by the Navy in the Secretary's statement.²⁵

Robinson sent copies of his meeting report to James Foster the Director of the Maryland Historical Society, as well as his supervisor and Marion Brewington. A week later Robinson had not received the copy of Good's report promised by Florence Sharswood. Admiral Heffernan, she explained, would not release it following Secretary Anderson's April 14 memo. However, those associated with the *Constellation* were free to read it and to make notes. The report, Robinson noted, was less than three typed pages in length the result of an "exhaustive" study which found very little on the

subject. Replying to a request from James Foster, Admiral Heffernan enclosed his only copy of the report and asked that it be returned. By June 20 Brewington had received a copy of Good's report, which he termed "worthless," and noted that what Good found presented more evidence indicating a new ship was built in 1853 than otherwise. Brewington felt many important areas had been untouched by Navy researchers and basic questions had not been either faced or answered. He advised:

Regardless of 1797 or 1853 vintage, the vessel is interesting and an excellent symbol of American Naval History. For that one reason she is worthy of preservation. I say this with two reservations: 1, that no ambiguous statements or claims be made if she proves to be of 1853 vintage; 2, that when the taxpayers or others paying the bills for preservation tire of the annual expenditures of large sums of money, and they will be annual and large if the vessel is to be maintained, provision be made for the decent burial of the remains.³⁶

On July 7, 1954 the Maryland Historical Society's *Constellation* Committee convened. Members of the society had been appointed by George L. Radcliffe to investigate the authenticity of the ship. Radcliffe had been born in 1877 and had been a Maryland U.S. Senator from 1935 until failing renomination in 1946. He had been president of the Maryland Historical Society since 1939 and remained influential in local civic, political and historical matters. According to the minutes, the members arrived armed with a "confidential statement" from the Navy Department: probably Good's three-page report. Attending were President Radcliffe; Director of the Historical Society James Foster; G.H. Pouder (pronounced Poo-dare) the colorful head of the Baltimore Association of Commerce; Society curator and maritime historian Marion Brewington; local shipping magnate Charles E. Scarlett, Jr.; auto dealer Alfred W. Barry, Jr. as well as Daniel Burkhardt, Richard H. Randall, and Donald Stewart.³⁷

The authenticity committee reviewed its findings. Within the past year the Navy had assigned naval architect R. F. Good to make a thorough investigation of "all existing records." Good's findings, now approved for public release, concluded that there was a "complete lack of evidence to support disposal of the original *Constellation*." Leonard Cushing said that the keel and the lower frames were original. Ralph Robinson visited the Archives, talked with people, and searched for newspaper clippings. Several Navy officials had issued supportive statements. Secretary Anderson's memo was a welcome "seal of approval" from the Navy. Perhaps noting that Good's conclusion was outside Good's area of expertise, Brewington still wanted to search the Archives further. Without waiting, five days after the meeting Pouder drafted the findings:

...your Committee is of the opinion that, based on continuity of Naval records, the official position of the Department of the Navy, and the historic and traditional regard in which this ship is held by the people of the United States, the present *Constellation*, with the changes which time and rebuilding inevitably make, is the ship built and launched in Baltimore in 1797.

Not until some weeks later were some of the important records sought by Brewington even located at the Archives, but by then it was pointless to face them immediately.³⁸

On July 23, 1954 Public Law 523 was passed by Congress pledging the *Constellation* to Baltimore. The ship was transferred by Navy contract on July 22, 1955, only 24 hours before Baltimore's option expired, to the Star Spangled Banner Flag House Association and its auxiliary the *Constellation* Commission (or Committee) of Maryland.

A public non-profit organization, members of the Committee served without compensation. The contract was written to cover the likelihood that the ship would be retransferred to the National Park Service. Under the supervision of Leonard Cushing the ship, cradled within floating dry dock *ARD-16*, was delivered to Paltimore Harbor on August 9 and stricken from the Navy List on the 15th.³⁹

Before the ship had left Boston, the Flag House Association had secured an "agreement in principal" from Conrad Wirth, Director of the Park Service, that on its arrival the *Constellation* would be berthed at Fort McHenry provided the *Constellation* Committee and other patriotic groups guaranteed to assume all the costs. However, the Committee, with only \$100,000 in its treasury pressed to have the Park Service not only berth the vessel but also fund its preservation, maintenance, operation, and exhibition. The Park Service was convinced the Committee was well-meaning but hasty in their plans to rapidly and inexpensively put the ship on display. The Park Service chief historian admitted that they had made no study of the authenticity of the ship, but were willing to accept the Navy Department's statement and the Maryland Historical Society's committee report. Although they believed the ship would be received in exhibitable condition the Park Service refused to extensively support the *Constellation* financially even upon its arrival.⁴⁰

By the end of August 1955 plans had gone further awry when the Park Service turned down the *Constellation* Committee's request for permission to pay for dredging a berth for the ship near Fort McHenry. The Interior Department found the dredging costs were greater than the funds available to the Committee. Unforeseen financial problems plagued the ship, shifting her temporary berth a number of times over the next few years. Press accounts indicated that both Congress and President Eisenhower declined to offer additional funds or transfer responsibility for the ship back to federal agencies. By early 1958 the Committee's first public fund-raising campaign had netted a \$9,532 loss and Dr. R. Walter Graham Comptroller of the city of Baltimore, publicly called for the ship to be mercifully sunk rather than commit another infusion of grant money from the city.⁴¹

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LEONARD F. CUSHING DEFENDS, 1948 - 1962

While still working at the Boston Naval Shipyard, Leonard Cushing expanded his private research and advisory duties with the *Constellation* Committee and wrote a historical report which he hoped would be published by the Committee or Maryland Historical Society. He also had printed for resale at his own expense small posters featuring the ship's figurehead. After covering expenses proceeds were supposed to go to the ship but few of the posters sold. He petitioned for reimbursement for the posters, for use of his manuscript and for the time he had previously devoted toward restoration plans. Declining to pay, Chairman of the Committee, Charles Scarlett replied, "...but you understand we have more than we bargained for to launch this very complex campaign and are not materially concerned with the actual mechanics of restoration." Nevertheless, Cushing admitted, "I just can't keep out of this Constellation business. My big regret is that I don't live nearer so I could do more."⁴²

In February 1956, popular *American Heritage* magazine ran an article by A.B.C. Whipple about the history of the ship ending with Chapelle's views on its authenticity. Once again Comptroller R. Walter Graham, outspoken and avowed critic of the origins of the ship brought the matter to the public through press statements. By late that year Rear Admiral Ernest M. Eller became the new Director of Naval History, replacing Admiral Heffernan on October 31, 1956. Born in 1903, Admiral Eller was a Naval Academy graduate and had seen a variety of service at sea during WW II and Korea as well as several important peacetime administrative positions. Having had duty in the 1930's in the Academy's English and History Department, the admiral was interested in the history of Thomas Truxtun. He was also an active member of the *Constellation* Committee, having been invited to join shortly after becoming Director of Naval History. Following what had become the Navy's standard reply, Admiral Eller repeated Secretary Anderson's statement about the lack of proof of disposal. President Eisenhower requested information and once again the Navy through Eller repeated its stand. Still unconvinced that the ship was authentic, R. Walter Graham contacted Marshall W. Butt, engineer and well-respected librarian of the Norfolk Naval Shipyard. Butt's view that the ship was built in 1853 was based on published material, and the comptroller in releasing his own views to the press, added that Butt's opinion had been reversed by others within the Navy. Further, Graham revealed, Captain Edward L. Beach, President Eisenhower's naval aide, had called him to offer his support to the two-ship side of the argument. Graham quoted Marshall Butt in the press, to which Eller replied, "The Navy Department does not agree with that...I do not think that the Norfolk Naval Shipyard realized this..." The Committee was much relieved to have Admiral Eller staunchly its corner.⁴³

On March 16, 1958 Cushing, Chapelle, Stewart, and Graham appeared in a panel discussion on the program "The Port That Built A City - and State" broadcast on WMAR television in Baltimore. Unable to appear with Chapelle was Dr. John Lyman, a naval oceanographer and maritime historian. Cushing's expenses were covered by the *Baltimore Sun*. Unfortunately there can be found no record of Stewart, Graham, and Chapelle's prepared speeches or any of the members' extemporaneous remarks. Cushing's prepared remarks included the by now familiar litany of Navy Department quotes from 1951 to 1958, much material on the semantics of the term "rebuilding," and a patriotic quote from Franklin Roosevelt's 1914 paper. Using a chalkboard he tried to

explain how the keel and first futtocks, or lower parts of the ship's frames, had survived many rebuildings. However, much of Cushing's prepared statement attempted to use Chapelle's published material to show inconsistency in Chapelle's statements over a period of time and that some of his statements supported Cushing's side. Cushing specifically claimed that in an interview with the press in 1948 Chapelle knew "...that (in 1852) the old keel was moved into a shiphouse to be used in the rebuilding of the *Constellation* (and) would not admit this fact in the interview."⁴⁴

The written remarks for the television program served to demonstrate several things. They indicated how the Baltimore defenders flew to emotional battle stations whenever Chapelle made public statements. The Committee believed Chapelle was the only one criticizing its point of view and by virtue of their belief, concentrated their research and public statements on defending themselves against or attacking Chapelle professionally and to an ever-increasing extent, personally. Later some would say that every time they made a step forward, Chapelle would "drop the bomb." Cushing's line of defense illustrated what would be the Committee's long-held belief that Chapelle knew that its version was correct but for egotistical reasons refused to admit it. Reviews of the television program also served to demonstrate another important point. That is, by 1958 the matter had become so technical and the credentials of both sides so confusing that the public and the press had essentially lost the ability to understand either side. A Baltimore paper even published a cartoon depicting Donald Stewart in captain's uniform aboard the *Constellation* exchanging cannon fire with a tartan-clad R. Walter Graham atop the dome of city hall.⁴⁵

Following the program Cushing believed that he and Stewart had been short-changed for equal time. Corresponding with the Committee, Cushing said he found Chapelle "a great deal different than what I had thought" and that he would begin writing him in a few days. Cushing boasted he would turn him around by the third letter.⁴⁶

Chapelle by this juncture was serving as Curator of Transportation at the Smithsonian Institution's National Museum of History and Technology and Cushing began corresponding in April 1958 in a friendly vein:

I must first apologize for my earlier impressions as I know now I was very much wrong. Back in 1948, when I first read some of your statements relative to the *Constellation* in the *Christian Science Monitor*, I thought to myself this fellow must have horns or he wouldn't be degrading this ship like this. After meeting you personally on March 16th at Baltimore and finding you very much a gentleman I take back all those evil thoughts I had of you.

I feel quite certain your opinion hasn't changed any regarding the *Constellation*. However, I would like to exchange a couple of letters with you if this is agreeable. My purpose would be an attempt to sway you a little toward my side relative to the authenticity of certain parts of the Ship. I feel a better understanding of the question can be reached if we both review the information we have with an open mind.

After portraying his long connection and love of the ship, Cushing proposed an odd arrangement by which he would ask Chapelle questions or suggest statements and Chapelle could merely indicate which ones he agreed with and which ones needed discussion: all without "commitment" or signature. It is likely the system was intended to entrap him and Chapelle perhaps saw the possibilities:

I would be very glad to correspond on the *Constellation* matter and to check off the items as you suggest. It is my opinion that a good deal of emotion developed in this matter and, as a result, the actual official records of the very curious transactions regarding this ship have had very little effect upon opinion.

You understand, of course, that any answers I give to your questions may be used as quotations by you. I have no reservations on this for, obviously, honesty requires I state my case in its final form....

As in the "*Constellation*", the survival of "original parts" in the "*Constitution*" was highly speculative. However, in the numerous repairs and reconstructions of the "*Constitution*" the original form and rating as well as basic dimensions were adhered to, where as a quite different situation exists in our ship. As you know, I firmly hold that none of the 1794 parts exist in the present *Constellation*, and in building a replica there is no need to "justify" it by annexing any of the present ship.

As I have repeatedly written, the present ship is important because she was the *last sailing ship designed and built as a fighting ship by the USN*....

If you are this way, drop in. Send your questions along.⁴⁷

Buried within his first battery of written questions to Chapelle, Cushing boldly asked, "Would you be at a disadvantage in changing your opinion. Loss of prestige? Loss of royalties? Do you think the admission of an error is horrible and accepted as such by the public?" These questions reflected the Committee's strong belief that Chapelle knew the Committee was correct but refused to admit so. Chapelle replied that he was not at a disadvantage to change his mind, that there was only limited public interest in the *Constellation*, and certainly he believed the public would accept an admission of error. As for the Navy's position, Chapelle wrote:

To me this is a simple matter of examining the official plan files and records of the Bureau of Construction. I had pertinent material photostated in 1933 and up until 1957. To disapprove the plain inferences of these records would be most difficult, particularly in view of the history of the established practices of the Navy in such matters prior to 1851. I must say, in the face of the surprisingly complete, technical, plan and document record of the *Constellations* I fail to understand how this whole situation ever came about and how officials in the Navy were able to assume the corvette was merely an alteration of the frigate.

The Navy position, he claimed, was an "arrogant command decision." Showing signs of mounting irritation, Chapelle kept pressing for a face-to-face meeting bemoaning, "...we do go around in circles to some extent...I try very hard to understand your points. Perhaps I am dense...It seems to me, however, that we get nowhere for the basic reason that the official plans and supporting documents say one thing and the supporters of the present ship being the original say something else based on pure assumption." He added, "I must remind you that I have never indulged in personalities in this argument. I must say I am getting impatient, however, with being expected to answer the arguments of others, and their evidence, without receiving equal courtesy of having my arguments and evidence answered."⁴⁸

Cushing's letters were convoluted and lengthy, occasionally aggressive, and attempted without effect to be persuasive. Chapelle's replies became noticeably stronger,

deflecting Cushing's tortuous persuasions. It was not until April 16, 1958 that Cushing admitted that despite his several prior statements, he had not actually overlaid the 1795 ships lines with the 1853 lines. They were not, he noted, specifically similar. Citing his experience on steel ships Cushing wrote with typical preconception, "I think we should look for the most logical explanation of what took place to reach a sound and unquestionable conclusion. The same underwater form was retained except where it was changed to suit the lengthening of the ship." As to the existing numerical offset tables from 1853, Cushing believed that they must have been measured from the existing vessel, then laid down on the mould loft floor, and new lines or shape measurements added to them. Chapelle simply but firmly disagreed with this complicated assumption. While Cushing and Chapelle continued a reasoned exchange of views on whether the offset tables of 1853 meant that a new design and new ship were lofted, the Committee lobbied Secretary of the Navy Gates to have Leonard Cushing assigned at Navy expense to the *Constellation*. The sole purpose of the assignment the Committee wrote, was to allow him to do historical research in order to refute Chapelle's contentions which had, they claimed, brought to a complete standstill their efforts at fund raising. Comptroller Graham had been busy too. He had the ship's books audited. Finding examples of lack of monetary control but no dishonesty, Graham announced to the press that the city should ask the Navy to take the ship back.⁴⁹

Discouraged that the Committee had fund raising hopes but no restoration plans, Cushing saw "the end of the trail." He had hoped to quit his work with the Navy and come to Baltimore employed by the Committee to restore the ship. Nevertheless, he continued to offer general advice on dredging, dry docking, and replacement of timbers with the hope of some day being offered the job. The refusal of the Secretary of the Navy to reassign him effectually ended Leonard Cushing's active defense of the ship. In the end, he admitted that Chapelle did not supply what the Committee wanted and very little was gained. He admitted he did not have the time or money to do extensive research and left feeling the *Constellation*, without his technical guidance, would be more ridiculed than honored. Cushing and Chapelle remained friendly. The Committee continued to worry about fund raising and for a while depended on Donald Stewart and museum sub-committee chairman John Schneid for the battle with Howard Chapelle. Leonard Cushing left the Navy to work for a private salvage company and died February 8, 1962. Many of the papers and plans in his personal collection were turned over to the Committee.⁵⁰

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NEW TACK, 1958 - 1960

On April 27, 1958 a revelation was made that irrevocably changed the course of the *Constellation* controversy. Donald Stewart and perhaps John Schneid had begun collecting documents to support their case as early as March 1956 and by January 1957 Stewart had claimed regarding his research, "I have written to over four hundred (*sic*) and obtained all of the late President Roosevelt's files and plans of the ship from 1794 to the present time." In early April 1958 it was reported that Stewart located within the records of the Bureau of Ships at the National Archives a letter written by Franklin Roosevelt to the Chief of the Bureau of Construction and Repair dated July 31, 1913:

NATIONAL ARCHIVES
(stamp)

Department of the Navy
Office of the Secretary
Washington, D.C.

31 July, 1913

From: Franklin D. Roosevelt,
Acting Secretary

To: Director of the Bureau of Construction and Repair,
Subject: Claim that the U.S.S. *Constellation* was built in Norfolk, Va. in the year 1854.

I was not surprised at the folder your office sent me, stating that the *Constellation* was built in Gosport in 1855 and was in fact the last sailing ship built for the U.S. Navy.

This false report was also in the "Report of the Secretary of the Navy" for 1908 but was corrected in the report of 1909, as it was not accurate.

I have before me all data on this repair at Gosport between the years 1853 and 1855 and there is no point to the above statement. The records of repair dated 1853 thru 1855 state that the *Constellation* has the original keel, frames from six foot upward from the keel, ballast, and stem. It does state that the old vessel was taken down to bare structure and rebuilt as a sloop of 24 guns. It was pointed out to me that in 1852 the ship was placed in drydock to check her under side and that it was found that a false keel should have been made as her old keel was badly warped or bogged. I found that in July and August of 1853 the false keel was attached to her old keel and that it was the intention of the Commandant at Gosport to save and preserve as much of the old ship as was possible.

I am sending you the drawings that were made of the ship in 1852 and your bureau will be able to check them with the new design plan.

I feel that the *Constellation* is as original as any ship afloat, even though she had changes, ships change as do men and *Constellation* is no exception.

Franklin D. Roosevelt

Acting Secretary of the Navy

{ transcribed with all typographical errors retained }

Stewart forwarded retyped copies to the Bureau of Ships and to Admiral Eller. Anonymously, the Bureau sent a copy to "the gentleman at Smithsonian" and in a handwritten note added to his copy of the 1913 memo, Chapelle commented, "Apr 27, 1958. Note: the above records have not been found in the National Archives and the statement is contrary to the store records of the Gosport Navy Yard, the plans and offset table, and other materials on record...." To Cushing, he wrote, "It is hardly necessary to make any

lengthy comment on this paper. The evidence it refers to has yet to be produced ... Roosevelt was misinformed." "As for Roosevelt, my opinions of him are not for discussion." Releasing the 1913 letter to the press, the Committee announced that it conclusively proved the authenticity of the vessel. Admiral Eller also made promotional statements to the press and privately declared the letter would convince any reasonable-minded person and that it vindicated the Navy position.⁵¹ The letter was the first of several of Roosevelt's writings which seemed providential and to the Committee confirmed its position. In facing Howard Chapelle, Franklin Roosevelt would become its talisman. To Chapelle the letter must have been initially bewildering and it would be some time before he would detect the underlying trouble.

NAVY ASSISTANCE

The *Constellation* had a good ally in the Navy and in Admiral Eller who promoted the project within the Pentagon. In 1959 Fleet Admiral William D. Leahy was the titular national chairman of the *Constellation* Committee. He was followed by Fleet Admiral Chester Nimitz and then Admiral Arleigh Burke. Rear Admiral John H. Hanly (Ret.), associated with the U.S. Secret Service, served for a time on the Committee but most important to fund raising early on was Lt. Commander Vincenzo Lopresti, director of naval recruiting in Baltimore. In May 1959 Lopresti was appointed as a member of the *Constellation* Committee specifically to boost fund raising efforts which in the previous four years had a total net loss of about \$18,000. Lopresti raised over \$100,000 soliciting Navy reservists, retirees, and active duty personnel. By 1962 Lopresti succeeded in having the Secretary of the Navy issue an official notice to all ships and stations encouraging both military and civilians to donate one dollar each to "...support this memorable keepsake of American Naval History." Each donor received a medallion struck from copper removed from the ship. The actual amount of old copper in each coin was minuscule but the campaign worked and the medallions were a steady source of income from both the Navy and the public. Incoming donations were carefully tabulated by a volunteer Navy chief from the Baltimore recruiting office. Lopresti's love for the ship was so great that by 1963 he offered to retire from the Navy in exchange for full time employment with the *Constellation*. The plan did not come to pass.⁵²

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LEON D. POLLAND VOLUNTEERS, 1959 – 1961

In June 1959 Leon D. Polland joined the *Constellation* Committee as a volunteer and became both chairman of the Construction and Repair subcommittee and architect of the ship. Polland had been born in Brooklyn, New York in 1917 and attended a technical school in Baltimore. Following work as an aircraft assembly technician and then lithographer he was employed as a marine draftsman in 1955 first at the Bethlehem yard and later at Maryland Shipbuilding & Drydock in Baltimore. While working at Maryland ship he studied mechanical engineering and mathematics at Johns Hopkins and fell in love with the neighboring *Constellation*.⁵³

Beginning with only four plans of the ship Polland began to compare them with the relic. He began to prepare detailed drawings of the existing ship and eventually made extensive well-drawn plans of the ship as she might have looked as a frigate. He did not deny that his immediate impression was that the vessel he faced looked like a sloop-of-war from the 1850's. Within a few months he too was wrestling with the problem of dimensions. He was severely handicapped by what he admitted were his lack of prior understanding of wooden shipbuilding techniques and his scant background in historiography. Learning as he worked, for technical help he regularly wrote to the Naval Academy Museum, the *Constitution* staff, the curator of the Hart Museum and staff at the Massachusetts Institute of Technology (MIT), and to the president of the Newport News Shipbuilding and Drydock Co.⁵⁴

Some members of the Committee speculated that the ship had been lengthened by the addition of a new stern but in his notes on December 4, 1959 Polland theorized that the ship had been stretched in 1853 some twelve feet at the "dead flat" or the widest part of the hull amidships. He figured that that was where the additional hull length must have been added because it was a technique he was familiar with when applied to jumboizing modern steel ships. Inside the middle of the ship, he thought he saw evidence of sectioning and an addition. He declared that his theory "...must now be taken as fact." Amazingly, only eight days later a plan supposedly obtained from the Franklin D. Roosevelt Library perhaps by Donald Stewart almost exactly confirmed Polland's theory. The small undated drawing, actually initialled "FDR," clearly showed a midships lengthening scheme.⁵⁵

With the ship in dry dock in early May 1960 Polland believed he could see evidence of much rebuilding but he encountered a puzzle. The keel-to-frame joints had not been rebuilt and the distance between frames was 32 inches: not 26 as indicated by the 1795 plans. The 1853 plans showed the distance to be 32 inches. It was a significant discrepancy but the problem would remain only shortly to be solved. The same day in preparing a body plan, Polland declared in his notes that the mould loft offsets, the measurements of the shape of the ship's frames, from 1853 were derived from the ship of 1797 and only modified from the waterline (22 feet) upward. Leonard Cushing had believed the same. Polland derived this from his superficial comparison of the midship section lines of 1795 and 1853. Similarity below the waterline was confirmed, he noted, by the Roosevelt memo of 1913. The bow and stern were, he wrote echoing Roosevelt's alleged words, "the work of David Stodder."⁵⁶

Excitement grew when on May 19, 1960 a shipyard workman was withdrawing a number of soft copper bolts and spikes from the ship near the turn of the bilge at frame 21

and discovered that one of the thirty-four pieces had the number "1797" stamped into it. The worker turned the item over to the night watchman and signed an affidavit before Donald Stewart, a Justice of the Peace at Large for Baltimore city, attesting to the date and location of the discovery.⁵⁷

By August Polland's journal buoyantly proclaimed "... *Constellation* gives every indication of bearing more original structure & form than has ever been hoped for by this Committee...." In examining the frames of the ship Polland found that some portions of individual frames were textured as if sawn and others were textured as if trimmed by an adz. He deduced that those timbers with adz marks were from 1797 and those with saw marks from 1853. Most of the sawn timber was in the midships area but, he admitted, there were also sawn timbers in areas of the frames remote from the area he thought was added in 1853.⁵⁸

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"YANKEE RACE HORSE," 1961

By early 1961 work had been completed on a manuscript written for publication in the magazine of the Maryland Historical Society. "Yankee Race Horse: The U.S.S. *Constellation*" was co-authored by Leon Polland, Donald Stewart, *Constellation* Committee chairman Charles Scarlett, Jr. and museum subcommittee chairman John Schneid. According to one participant, the article was expressly written to "shut down" Chapelle and R. Walter Graham and to impress the Historical Society which had withdrawn from the project ostensibly from fear of the financial liability the ship might impose. Interest by the Baltimore Association of Commerce had waned too. Research for the article had apparently been conducted mostly by Donald Stewart who had visited the Roosevelt Library in 1959 and the Naval Training Station, Newport, Rhode Island in 1960. As far as could be determined three of the authors did no substantial documentary research for the article, which depended mainly on a collection of oddly documented typescripts, thermofaxes and photostats of historical documents considered the Committee's "historical files." The article appeared in the March 1961 issue.⁵⁹

The article was rather unusual. It had barely 1500 words of text but nearly 5000 words of footnotes. The core of the text was a section titled "Franklin D. Roosevelt on the *Constellation*, 1798-1855" which was a word-for-word transcription of a portion of a monograph supposedly written by Roosevelt around 1914-18. Curiously, probably due to an oversight, the actual source of the "Roosevelt Brief" (as Chapelle later called it) was never revealed within the extensive footnoting. The Roosevelt material was specifically employed because the authors felt it could not be impeached by Chapelle. Roosevelt's writing, according to the authors was based on "...sources now known to have been lost, or as yet unlocated." This lost material was the so-called "Theodore Roosevelt Collection" of documents and ships plans destroyed, according to the article, in a fire at the "Newport Naval Training Station Museum" in 1946. Though not specified in the article, the collection allegedly included at least thirteen privateer logs; volumes of records of repairs to ships; volumes of letters to the Secretary of the Navy; volumes of official Navy correspondence dating from 1802 until 1817; correspondence between Truxtun, Fox, the Sterretts, Pickering, and Stodder regarding the *Constellation*; dozens of published reports, 1810 - 1854; and 321 ships plans 1785 - 1858, including 21 plans of the *Constellation*.⁶⁰

ROOSEVELT BRIEF

The Roosevelt Brief declared two things in no uncertain words. First, that in 1795 David Stodder secretly and extensively changed Joshua Humphreys' official design of the *Constellation*. Second, that the keel and the lower hull of the 1797 ship were retained and were part of the ship as rebuilt in 1853. Therefore, the Brief offered on one hand a reason how the ship in Baltimore retained a substantial portion of the 1797 ship and why that portion did not conform to the Humphreys plans of 1795. The linch-pin of the whole construct was an April 30, 1795 letter from David Stodder to Secretary of War Timothy Pickering, allegedly from the collections of the Pennsylvania Historical Society, in which Stodder informed Pickering that he had changed the critical frame spacing on the ship from Humphreys' 26 inches to his own 32 inches. Privately, Polland declared:

The wording & language in the...document is that of David Stodder.... This letter must certainly take its place as one of the most important in the archives of the *Constellation*.

The letter explained why the Baltimore ship had 32-inch frame spacing, matching the 1853 plans, which supposedly matched in spacing size Stodder's lost secret design, but did not match the 26-inch spacing of Humphreys' plans of 1795. We were to believe that unknown to the Navy, the *Constellation* of 1797, was designed below the waterline just like a faster, lighter sloop of the 1850's. In hydrodynamic design, she would have been half a century ahead of her time. In the article the concept of the secret Stodder redesign was supported by documents purporting to show that in 1853 the Navy was surprised to find that the underwater shape of the *Constellation* did not conform to the Humphreys plans.⁶¹

CHRISTMAS NOTE

The article revealed a spritely Christmas note dated December 18, 1918, from Secretary of the Navy Josephus Daniels to Franklin Roosevelt. Allegedly found at the Roosevelt Library, even this greeting specifically confirmed authenticity:

To—Roosevelt, disciple of John Paul Jones

So the off-sets for the present *Constellation* were taken from the lower structure of the old ship and these were laid out on the mold loft floor with an extension of 12 feet to the body. Now that you have proved your point and made everyone in construction mad at you, do you want the ship on the Hudson for a Christmas present.⁶²

MAGOUN LETTER

The authors of the article supported Roosevelt's alleged statements with archival material from their own files which they believed he might have seen. Some ambiguous supportive materials came from the collections of the National Archives, but one especially important document had been accidentally discovered there. Reportedly in an envelope tucked into the pages of an 1853 Navy letterbook presumably a *Constellation* researcher found an undated letter written by Roosevelt to F. Alexander Magoun an instructor at MIT. In it Roosevelt disputed Magoun's alleged published belief that the ship was built in the 1850's. Roosevelt attached to the letter an extract of a diary claimed to have been written by constructor Delano in charge of the *Constellation* at Gosport. Dates and events were given which clearly showed how the ship was an alteration of the frigate of 1797. The "Delano diary" was doubly important because the writer, according to the "Yankee Race Horse" authors, was obviously Benjamin Delano a distant cousin of Franklin Delano Roosevelt. The bulk of the authors' documentary support was in the form of typescripts of documents reportedly from the "Library of Naval War College, U.S. Naval Training Station, Newport, R.I." These were typescripts, according to the article, of original documents destroyed in the tragic 1946 fire. Footnotes cited essentially all of the written documentation, which to this day, serves to substantiate the 1797 origin of the *Constellation*.⁶³

By the middle of the month the article had been released to the papers and Chapelle was quoted as being skeptical. The argument was dubious and did not make sense to him. A recent finding of a spike with the letter "T" stamped in it was announced as representing "Tingey," the commandant of the Washington Navy Yard where the ship was repaired in 1812. Chapelle replied "This is very strange...It is highly unlikely that any

bolts or spikes would show a date, and they didn't mark fastenings in honor of the commandants in navy yards."⁶⁴

POLLAND VS CHAPELLE

The Committee, Chapelle said, appeared overenthusiastic and gullible regarding the integrity of documents and artifacts. A drawing of the *Constellation* he recently examined at the National Archives perhaps had been "doctored." The article, he observed, was amusingly curious and claims for finding dated or datable metal artifacts on the ship were comical. Privately Leon Polland exploded. In an impassioned report to the Committee Polland wrote "... this is my *first*, and shall be my *last* reference to Mr. Chapelle. I have preferred to watch him in the destruction of his own image as the final authority with whom no one dare disagree. This myth is now exploded for all to see....I very much doubt that my name is familiar to Mr. Chapelle. This has been of my own choosing and in the process it has been he, the voluble Mr. Chapelle, who has alienated himself." To no avail someone on the Committee, acting alone, complained directly to the Secretary of the Smithsonian about Chapelle.⁶⁵

By 1969 Leon Polland would disown "Yankee Race Horse," claiming it "defunct," but one cannot ignore what had been written and documented in 1961. Publication of the article made some believe the Maryland Historical Society endorsed its contents and conclusions, and in the end, the plethora of footnotes tended to lead the public to believe the Committee had the preponderance of evidence. But neither Chapelle nor the Maryland Historical Society were convinced. Chapelle was more aggravated than ever.⁶⁶ To that limited extent, "Yankee Race Horse" was a failure. The use of Roosevelt's alleged writings as a primary rather than secondary source only served to confuse and complicate the Committee's stand and add more grounds for criticism. It did not provide the incontrovertible proof it had hoped.

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Fig. 1. Leon Polland, ca. 1974.
Photo courtesy Mrs. Leon Polland



Fig. 2. Howard I. Chapelle in his Smithsonian office,
October 1961. Photo courtesy Smithsonian Institution.

PARK SERVICE IMPRIMATUR, 1962 - 1963

Following an expensive dry dock period, funding to support the ship was again lagging and the Committee was worried that it would fail and the ship might be towed elsewhere. It considered going to the governor for help or approaching Congress. However, the idea of having the ship declared a National Historic Landmark was appealing. The landmark status would, it believed, help raise money and appreciation, serve to improve the Committee's legitimacy and authority regarding the nagging Chappelle problem, help secure a berth near Fort McHenry, and somehow preserve the ship forever.⁶⁷

By March of 1962 Charles Scarlett had written to the Regional Director of the National Park Service, an agency within the Department of the Interior, and had provided him with literature emphasizing the Roosevelt Brief and the year-old "Yankee Race Horse" article. Records indicate that a group from the Park Service soon toured the ship one time and then the Committee awaited administrative determination as to the ship's landmark status. The Navy was apparently taken by surprise when in December Secretary of the Navy Fred Korth received a letter from Secretary of Interior Stewart Udall stating that the Park Service felt it was not competent to conduct what they believed was a necessary investigation into the age of the vessel. Udall requested that the Department of the Navy assign a naval architect knowledgeable in 18th century naval architecture to examine the ship itself and provide an expert opinion. "Hell's fire!" exclaimed Admiral Eller who quickly informed Scarlett of the unexpected turn of events.⁶⁸

Korth forwarded Udall's request to Admiral Eller for handling. The Admiral asked his assistant, F. Kent Loomis for a recommendation on historically-minded naval constructors. A number of possible candidates were apparently suggested. John Lord was the former constructor who had overseen the rebuilding of the *Constitution* in 1926. Andrew I. McKee then the Navy's top submarine designer might be considered. William A. Baker, an eminent authority on 17th and 18th century vessels who designed the full-sized *Mayflower II* replica was a possibility, as well as several other prominent naval architects. There was no record of any of them being approached. In his internal routing memo to the Chief of Naval Operations Admiral Eller explained,

We have lost some of our old timers knowledgeable in this field in the past few years, hence an architect with this background is hard to find. Furthermore, it does not seem appropriate for me to question repeated examinations by our ship experts and historians over the past half century - not to mention the fact that the Navy has held the rebuilt ship of the 1850's to be genuine and it does not seem likely we would continually delude ourselves.

Admiral Eller drafted Secretary Korth's reply and side-stepped Udall's request for an architect. Korth (Eller) replied:

We have examined the authenticity of CONSTELLATION many times over the years because of questions raised over one of her major rebuildings. We have always come to the same conclusion, that as much as a ship of this age can be, CONSTELLATION is the warship that was launched in Baltimore on September 8, 1796. There is no evidence in the records that she is "a new ship" of the 1850's. There is every evidence that she has always been considered the original ship and certainly the Navy Department would not have gone to the expense of keeping her through the several revolutions of seapower and repeated lean budgets of the past 165 years had there been doubt.

The letter to Udall was rapidly circulated in the press.⁶⁹

On May 23, 1963 the *Constellation* was designated a National Historic Landmark built in 1797. At a ceremony featuring Interior Secretary Udall, Robert E. Michel, recently installed as chairman of the *Constellation* Committee announced that the decision "...was made only after consideration and study on the part of a group of experts extending over a period of years...augmented by studies and testimony by United States naval personnel." Then he plugged the "Yankee Race Horse" article of two years before, and added that it had completely authenticated the ship. The matter of identity of the nation's latest landmark was now "beyond controversy."⁷⁰

Perhaps these statements encouraged later misleading remarks by the Committee that the Park Service actually investigated the ship and validated its authenticity. The Park Service became another component in the house of cards built upon mutually dependant endorsements of authenticity. The Park Service had granted Landmark status based upon the assumed endorsement of the Maryland Historical Society and upon Admiral Eller's statements. One person at the Smithsonian recalled that a group from the Park Service did meet with Chapelle in his office. It is interesting to note that the Park Service historians *did* primarily use the only "Yankee Race Horse" in its formal documentation of the landmark, with passing mention of Chapelle's *The History of the American Sailing Navy*. Leon Pollard belatedly learned that the Smithsonian Institution was not part of the Department of the Interior and Secretary Udall could not muzzle Howard Chapelle.⁷¹

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FRIGATE E AND APPARITIONS, 1962 – 1966

Since June 1959 Leon Polland had continued his break-neck personal schedule formulating and drawing plans to convert the sloop-of-war into a frigate. Nearly every day following his regular job at Maryland Drydock in Baltimore and later the Maritime Administration in Washington he would return home to suburban Maryland, eat dinner and then spend nearly seven hours at the drawing board or drafting letters. Saturdays and holidays were usually spent on board ship inspecting and directing the changes and maintenance. Donald Stewart was almost always present. A volunteer from the beginning, since March 1956 Stewart had been an employee of the Committee fulfilling the duties of custodian and supervisor of the ship or essentially "captain" of the vessel.⁷²

On July 4, 1961 the ship was officially re-opened to the public at Pier 4, Pratt Street. The waterfront was a depressed and shabby industrial area. According to his notes, about that time Polland began to quarrel with powerful Committee member Charles Scarlett over allocation of money for display versus maintenance and restoration. Despite recent dry docking, the ship was leaking badly and Polland and Scarlett feuded over steps to be taken to relieve the problem. They disagreed about the extent the ship should be modified with Scarlett favoring minimal changes. Polland favored retrofitting the ship to the 1812–15 period, but retaining the rounded stern of the 1853 period as well as the twelve feet of additional length. To at least one other Committee member Scarlett appeared caustic towards Polland and critical about his abilities as a naval architect. Besieged by "a gallery of amateurs," to Polland it was a problem of the extent of his authority as architect. The problem would seethe below the surface of their relationship for over a decade, over-boiling publicly only from time to time.⁷³

It is interesting to note, but of no direct consequence, the accounts of ghosts seen aboard the *Constellation* in the mid 1960's. Several stories circulated in the press especially about an unidentified apparition in a War of 1812 commodore's uniform giving tours to unsuspecting visitors. The ghostly episodes culminated on a predictably stormy night in October of 1964 or 1965 when Committee members Donald Stewart, Gordon M. F. Stick, and Jean Hofmeister hosted self-proclaimed witch Sybil Leek and ghost-hunter/author Hans Holzer aboard ship. In a trance, Leek "detected" three ghosts: Commodore Truxtun, Seaman Neal Harvey who had been executed on board in 1799 during battle with *L'Insurgente*, and an eleven year-old boy allegedly murdered below decks August 16, 1822. All of Leek's parapsychological observations were confirmed, according to Holzer, by Donald Stewart. Why poor Commodore Truxtun, who died peacefully in Philadelphia in 1822, was condemned to walk the decks was never explained, but the ghost business and publicized instances of a lightening strike and mysterious pier-side fires kept the ship in the public eye.⁷⁴

By 1963 Polland had mimeographed a lengthy report or narrative in book form which he hoped would be published. Dubbed "Frigate E – CONSTELLATION" the manuscript was a rendition of his meticulous though somewhat pretentious daily work notes, thoughts, and theories, since June 1959. The ship built in Baltimore in 1797 had been called "Frigate E" until the name "Constellation" was assigned. The manuscript documented Polland's work and his intentions for converting the sloop into a frigate. Sent to a number of publishing houses, it was universally rejected primarily because of its technical nature and limited public appeal. Undaunted, he sent mimeographed copies of the work to various friends of the project and periodically mailed out updates and

revisions. By late 1964 Admiral Eller was assisting in its expansion and editing prior to intended publication by the Navy. References to the Roosevelt Brief were omitted entirely from the manuscript although other alleged Roosevelt documents were cited.⁷⁵

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SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS, MAY 1966

Before work was fully completed on the *Frigate E* manuscript, Leon Polland was asked to present a paper on the project before the Chesapeake and Hampton Roads Section of the Society of Naval Architects and Marine Engineers (SNAME). By March 1966 a rough copy was finished and ready for reworking by Admiral Eller. A revised shortened version of *Frigate E* with more historical data, the hundred-page paper was termed "splendid" by the admiral, though he still intended to publish the 1963 manuscript. Many soft-cover copies of the report were printed free by the Newport News Shipbuilding and Dry Dock Company and sent to members. Excess copies were given away or sold by Polland with over 50 percent of the proceeds given to the ship. Minor changes and more drawings would result in a second edition in 1968.⁷⁶

On May 7, 1966 at the Holiday Inn in Baltimore Polland presented the paper titled "The Frigate Constellation, An Outline of the Present Restoration." Only a twelve-page synopsis of the full-blown hundred-page book was given followed by comments sent in by three society members, and then a tour of the ship. Though a member, Howard Chapelle was not requested to comment nor was he present. The first comments were glowing and sent from Admiral Eller. Howard H. Fawcett, Jr., president of Newport News Shipbuilding was supportive of the paper and wrote urging the Committee to capitalize on the resources he believed to be visible in the ship, that is, evidence of the span of ship design and craftsmanship from 1795 until recent times. However, from Hingham, Massachusetts, William A. Baker's comments were not as kind. Baker was a maritime historian and experienced naval architect specializing in the design of historic wooden ships. He warned that the Committee's plans were conflictive:

...if the physical dimensions of the present hull are accepted, the documented changes...limit reconstruction and restoration to the 1853 condition. Removing 12 ft. length might allow the date to be pushed back to 1829 when the round stern may have been added.... A change to a square stern might allow a reconstruction of 1812 but no earlier as the original topside shape was lost then. Any such changes, however, would be in conflict....

Apparently the 1853 reconstruction represented the then current naval thought as to the desirable characteristics of a sailing warship. This would seem to be ample justification for restoration to that date. There is no justification for the introduction of earlier features on a ship of that date for a ship is defined by its entire fabric and not a certain portion of its underwater body.

Despite the fact that Franklin D. Roosevelt, Jr., whom he personally invited, could not attend, Polland was sure the presentation was generally well-received.⁷⁷

SNAME PAPER DETAILED

The basis of the historical sections of the SNAME paper was much of the documentation used in the "Yankee Race Horse" article of 1961. The 1966 paper went on to describe in rather convoluted detail how the Roosevelt material (except the Brief), Naval Training Station material, and National Archives drawings were interpreted as mutually supporting and were developed into plans for restoring the ship. Now-standard claims that Stodder redesigned the ship in 1795 and that the ship was only altered in 1853-55 were repeated.⁷⁸

A few new historical items were revealed or expanded upon. In his introduction Polland quoted Admiral Edward L. Cochrane, former Dean of Naval Architecture at MIT as having examined the controversy back in 1953. Cochrane had allegedly written that he found that the ship was built in Baltimore, was redesigned by Stodder with 32 inch frame spacing, had an unusually sharp bow, and was lengthened by 12 feet. Certainly for the SNAME audience there could be no greater authority than one of their past presidents.⁷⁹

Also revealed in the paper was the Committee's reliance upon a written report on the major battle damage, repairs, and reconstruction of the *Constellation* ostensibly prepared by Admiral Washington L. Capps, Chief Constructor, for Assistant Secretary of the Navy Truman H. Newberry. Although not dated, the overlap of both men's careers would have dated it 1905-08. The Capps Report was found in the Newport Naval Training Station files and coupled with letters by Thomas Tingey and Charles Stewart, allegedly found at the Library of Congress, were heavily depended upon for restoration details. Polland believed the Capps Report, "...concise, reasonably accurate, and uncolored by needless personal observations."⁸⁰

The bulk of the SNAME paper was an account of Polland's rebuilding program, reprinted technical tables on masting and sparring, offset tables, and reduced copies of his drawings as well as a ponderous glossary of terms he probably felt necessary to avoid the unpopularity of *Frigate E* which, in the end, never was formally published.

* * * * *

NAVAL HISTORY INVESTIGATION, 1958 – 1969

Almost from the beginning of Admiral Ernest Eller's involvement with the *Constellation* Committee the expertise of the Division of Naval History was employed to some extent to aid the authentication of the vessel. His office was composed of a combination of civilian and military curators, librarians, archivists, historians, researchers, and support staff.⁸¹

1913 ROOSEVELT MEMO

Wasting no time in 1958, the day he received a copy of the 1913 Roosevelt to the Bureau of Construction and Repair memo, Admiral Eller wrote to the Roosevelt Library and asked for information about the possible whereabouts of "all the data" Roosevelt claimed in 1913 to have had before him. A thorough search by the Library staff revealed nothing. The exercise would be repeated again in 1961 with the same negative results.⁸²

ARNOLD THOMAS TESTIMONY

In 1959, the Committee asked Admiral Eller to locate information about a shipwright, Arnold Thomas, involved in the rebuilding of the *Constellation* in 1853. Thomas' testimony according to the Committee, was used by Roosevelt to present to Congress in 1913 and it proved the ship original. The records of Congress, Eller's staff found, contained no such testimony, but the shipwright would be cited in "Yankee Race Horse" just the same.⁸³

THEODORE ROOSEVELT COLLECTION

In 1960 Admiral Eller had ordered the wholesale collection of copies of any and all documents relating to the ship and attention was directed to the records of the Newport Naval Training Station. Many volumes of routine station correspondence were located but were deemed useless to the subject. Admiral Eller was disappointed to find that no remains of the Theodore Roosevelt collection of documents, logs, and drawings existed. The negative results of the Newport search for the collection were footnoted in the "Yankee Race Horse" article of early 1961.⁸⁴

CHARLES H. BELL LETTER

Another request by the Committee members preparing "Yankee Race Horse" resulted in a search for the November 3, 1855 letter by Captain Charles H. Bell in which was mentioned his appreciation of the twelve foot addition to the old hull of his ship, the *Constellation*. The original letter was not found by Navy archivists, but it would be cited in "Yankee Race Horse" anyway.⁸⁵

MAGOUN LETTER

By 1961 Admiral Eller was trying to find the source of the undated letter supposedly written from Franklin Roosevelt to F. Alexander Magoun enclosing an extract of the so-called "Delano diary" describing the work performed at Gosport, 1852–53. The trail led to Mr. Magoun who was living in La Jolla, California. Admiral Eller was delighted over the possibilities when he learned that Magoun clearly recalled receiving a letter from Roosevelt. However, Magoun, it was found, had misplaced the letter and it and the "Delano diary" never turned up.⁸⁶

While the admiral was assisting and encouraging Leon Polland in his production of *Frigate E* the second volume of the *Dictionary of American Naval Fighting Ships* was published in 1963. The series, published by the Director of Naval History has become the standard source on the history of nearly every American warship. It was no surprise to find the *Constellation* listed as but a single ship since 1797.⁸⁷

Following publication of the *Dictionary* volume relative calm prevailed at Naval History until the revelation in the press in 1968 that Chapelle had written a manuscript impugning the legitimacy of the documentation of the "Yankee Race Horse" article. In a flurry, Admiral Eller stepped up the intensity of Navy research in preparation for renewed onslaught.⁸⁸

MANSEAU LETTER

In his strong letter dated June 27, 1968 to Frank Taylor at the Smithsonian complaining about Howard Chapelle's actions, Committee Chairman Gordon M. F. Stick broadly quoted a letter purported to be written from Admiral Manseau of the Bureau of Ships to the Deputy Chief of Naval Operations in 1955 in which Manseau uncharacteristically categorized the historical reasons the *Constellation* was original. For unexplained reasons, by the following month Admiral Eller was seeking the original Manseau letter. The letter had come from the *Constellation* Committee files and four or five phone calls and a letter to Donald Stewart failed to produce a copy from him. Several months later Stewart supplied a xerox of an apparent carbon of the either pointless or incomplete memo rubber stamped "received MAY-8." An extensive search was directed to locate the original or copies in Bureau and the Pentagon files. No trace was found and the matter apparently went no further.⁸⁹

MAN HUNT, 1968-69

With publication of a book by Polland and Chapelle imminent, in mid-October 1968 Admiral Eller's office received a telephone call from a person calling himself Stephen Brayden who claimed he had been employed by the Naval War College in Newport in the 1940's and had transcribed important *Constellation* documents from the Theodore Roosevelt Collection before the fire of 1946. The receptionist received no further information. Leon Polland tried to write to him but the letter was undeliverable or unanswered.⁹⁰

The Naval History Division fixated on finding Brayden and validating the Theodore Roosevelt Collection. Through an alleged inventory list the division had been aware of the purported documentary resources attributed to the collection as well as an incredible amassing of artifacts in the "War College Training Station Museum" including two whole 18-pounder guns on carriages with full accoutrement; Truxtun's sword, watch and trumpet; *Constellation* pewter and china; a galley fire pit and hot shot furnace; two swivel guns; charcoal heaters; 18 uniforms, 1802-65; furniture; 2 shell guns; 15 Lee rifles; a carronade on carriage; and two muskets. Oddly, the materials were listed as being in "Barracks 'B' - U.S. Naval Training Station - U.S. Naval War College." Though the inventory list was supposedly written by the notoriously meticulous Chief Clerk of the Naval Station, Thomas J. Williams, it was confused because the War College and the Training Station were (and still are) two physically distinct units.⁹¹

The mystery unravelled. Initial correspondence showed that there was never a fire at the War College but a conflagration in January 1946 did destroy Barracks B at the nearby Naval Training Station. In January 1969 Admiral Eller's group began to collect detailed information about the fire. Through the Chief of Naval Operations, Admiral Eller officially requested that the Commander of the Naval Base, Newport employ local television, radio and newspaper outlets to search for Stephen Brayden or any former employees who had knowledge of the contents of Barracks B. In his reply to the admiral, the commandant said that the articles and newspaper and radio coverage had prompted several former employees to come forward. They had no knowledge of Stephen Brayden and did not believe there was a museum in Barracks B. Blueprints sent by the command-er tended to indicate the building had been only a huge dormitory, recreation center, and auxiliary building for the crew of the *Constellation*. One former employee, however, suggested that the retired officer-in-charge of the ship and the barracks in 1946 be con-tacted. When questioned, the officer-in-charge wrote:

During all of my Naval career all my shore duties were at the U.S. Naval Training Station, Newport, R.I.

On March 31, 1906 I was ordered on board the U.S.T.S. *Constellation* for duty. At that time the ship was moored to a dock abreast of Barracks B and later I was ordered as Officer in charge of Barracks "B" which housed the App. Sea Brigade. I inspected the Barracks daily, living quarters, store rooms and all other spaces and there were no *Constellation* relics...I assure you that there were no such early documents including plans etc. stored in Barracks "B."⁹²

LOYD A. OLSSON

In 1968 and 1969 Admiral Eller relied upon one of his most dedicated ships history researchers, Loyd A. Olsson to re-document archival material Leon Polland was using in his contribution to the forthcoming book, *The Constellation Question*. Olsson began simply by looking for the Magoun letter with "Delano diary" and a legitimate copy of the 1913 Roosevelt memo to the Bureau of Construction and Repair. Olsson was chided for asking the Roosevelt Library what had been asked several times before. Copies of neither were in their files.⁹³

APRIL 30, 1795, LINCH-PIN LETTER

Embarrassed but undaunted Olsson worked prodigiously and accumulated hard, well-cited copies of nearly every imaginable archival reference to the ship and its con-struction from 1794 until the present. Three copies of each document were made and placed in individual envelopes labelled on the upper edge. By 1969-70 the meticulous collection would number probably 300 envelopes. While amassing evidence Olsson was also assigned specific tasks directly by Admiral Eller. He was involved in the hunt for Stephen Brayden and the Barracks B mystery. He was assigned to find the original linch-pin manuscript letter of Stodder to Pickering dated April 30, 1795 establishing the 32-inch frame spacing. Polland thought the letter (from Committee files) originally came from the Franklin Institute. The search actually led to the Pennsylvania Historical Society which had an unusual photostat in its Pickering Papers matching the Committee copy. They suggested that the original may be in the collections of the Massachusetts Historical Society. The trail ended there with no trace of the important original letter.⁹⁴

"S" DOCUMENTS

Unfortunately little is known directly about Lloyd Olsson's beliefs as a researcher regarding the verisimilitude of the Committee-provided documents: a good narrative or report was not extant. Indeed, he believed there was some old wood in the new *Constellation* and it is clear he did not believe Stodder redesigned the ship. His filing system contained nine envelopes marked "S" for "suspicious documents." Some of the suspicious documents, he indicated, had been altered and others were complete fabrications. Several documents even bore the National Archives rubber stamp. Contained in his "S" file were the 1913 Roosevelt memo, the Magoun letter with "Delano diary", the Capps Report, the 1855 Bell letter, and the April 30, 1795 32-inch frame spacing letter, and all documents indicated as from Barracks B. In short -- the core of the Baltimore argument.⁹⁵

Admiral Eller never changed his stance and held to the Navy position that there was no proof the old ship had been scrapped. It can be presumed that Pollard was notified about Olsson's doubts in time to avoid using some of the more tempting pieces in *The Constellation Question*. Certainly Chapelle was not directly informed, but in 1969 he heard rumors of the Navy findings. Admiral Eller's staff consulted with William A. Baker and it is doubtless that Baker kept Chapelle apprised about the nature of their inquiries. Admiral Eller retired in early 1970 and eventually dropped his active association with the Committee.⁹⁶

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THE MARYLAND LEGISLATURE INQUIRES, 1966 - 1967

As early as 1966 bills had been introduced to the U.S. Congress by Maryland delegates attempting again to have some responsibility for the funding and display of the ship assumed by the Department of the Interior. These efforts were actively promoted by the *Constellation* Committee itself and a plan to have the Maryland State legislature endorse the idea, and thereby recommend it to Congress, was afoot. The question of authenticity was known by some state legislators or staff members and Chapelle's dissenting views were acknowledged. Hearings were arranged for August 10, 1966 and Chapelle was personally notified by the staff of the Maryland Legislative Council. He declined to appear, citing important committee work at the Smithsonian. He replied, in but one brief paragraph, that there was very conclusive evidence in several archives showing the present ship was not built in Baltimore. He invited delegates or staff to view the evidence in his office.⁹⁷

Hearings were held nevertheless, with several members of the *Constellation* Committee present. Unfortunately a list of the actual attendees and minutes of the meeting have not been located. However, the legislature was presented with a two-page report titled "Constellation Research Projects" by the Committee or someone representing it.⁹⁸ The report was astonishing in its distortion of the truth and its use of undocumented statements.

The report began by claiming that the modern attacks on the authenticity of the ship began *after* the vessel was delivered in 1955. It stated that the attacks were only two un-footnoted sources. The report said that after seven years of research, both the *Constellation* Committee and the National Park Service verified the conclusion the Navy had made in 1914: that the ship was original. According to the paper, the question of authenticity came up in 1914 when several Congressmen noted that a small booklet claimed the ship was built in 1854. A committee was then formed chaired by Admiral Capps and after several months of intensive research Capps concluded the ship was built in 1797. The report went on to allege that in 1957 and again in 1958 a committee of investigators from the Bureau of Ships made a five-week long physical survey of the ship and even spikes were analyzed. As a result of the five-week inspection and several more weeks of analysis, the Secretary of the Navy issued a statement declaring the ship authentic. In 1963-64, according to the report, the Department of the Interior ran a similar survey and also declared the ship genuine. The report listed about 24 archives and libraries consulted including the Theodore Roosevelt Collection which had now set sail and moved from Newport to Oyster Bay.⁹⁹ Nearly all of the report was based on, at best, half-truths and exaggeration.

Without Chapelle's active opposition and supported by a copy of "Yankee Race Horse" and Pollard's recent SNAME book, the Maryland Legislative Council passed a resolution requesting members of the Maryland delegation to Congress to urge passage of a bill establishing the *Constellation* as a National Historic Site under the Park Service. The same day of the hearing the matter of authenticity was settled by decree: "Whereas, Certain testimony was presented...which established beyond a doubt the authenticity of the U.S. Frigate *Constellation* and the acceptance of such authenticity by the United States Department of Navy, United States Department of Interior, and the Maryland Historical Society...." The Maryland legislature became still another piece in the house of cards. Eventually the historic site bills were rewritten to provide for berthing at

Fort McHenry while ownership of the vessel remained with the Flag House Association and *Constellation* Committee. As in 1955 the Park Service resisted and the plan again failed.¹⁰⁰

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THE CONSTELLATION QUESTION BOOK, 1966 – 1970

The Baltimore committee was fairly able to keep tabs on Howard Chapelle through a network of mutual associates, and it is likely Chapelle had a copy of Leon Polland's May 1966 SNAME paper through William A. Baker before it was presented. Regarding the *Constellation*, it is important to recognize that Chapelle had many projects in the works for both the museum and his own books. To him, the *Constellation* was bothersome but never all-consuming.¹⁰¹

FIRST DRAFT

To Baker Chapelle wrote, "The present vessel is not and never was a frigate. The claims of Polland are really an impeachment of every good record and also of those of the Navy's Bureau of Construction and Repair...Much of Polland's letters 'in evidence' are of questionable origin." One unidentified statement, according to Chapelle was "pure fraud." Baker was glad he lived far away from Baltimore. By February 1967 in the middle of proofing *Search for Speed Under Sail* Chapelle noted he had begun a study of the *Constellation* "affair":

Am beginning to put evidence together on paper and the *Constellation* becomes more and more unbelievable. Childish forgeries of evidence is evident time after time. It is hard to believe adults would attempt such a silly thing, particularly F.D.R. Must have busted a mental rivet but he kept the stuff in his files! Don't know yet what I will do with the write up.

Chapelle's ire was likely raised when he and Dr. Philip Lundeberg, Curator of Naval History at the Smithsonian had driven from Washington to Newport in Chapelle's Karman Ghia to investigate the mysterious Naval Station files. It is not known exactly what the important Newport correspondence files presented them on April 24, 1967, but it is apparent Chapelle was outraged by some of the documents he found. His suspicion shifted from Franklin Roosevelt to the Committee. Suspecting modern fakery, he submitted one Newport memo to the FBI for analysis and considered alerting government law enforcement agencies that federal records had been subjected to tampering.¹⁰²

His draft article tentatively titled "The Constellation Hoax" was forwarded to H. Crane Miller, Assistant General Counsel for the Smithsonian Institution on June 14, 1967. The article was basically a scholarly attack on the veracity of the documentation of "Yankee Race Horse." With his draft Chapelle included a copy of the article and a memo requesting Miller (a former Navy Department lawyer) to check the paper carefully for objectionable or libelous matters. With Miller's guidance Chapelle readily expunged the terms "hoax" or "fraudulent" because he could not prove any member of the Committee deliberately perverted the truth. Miller felt Chapelle convincingly showed that the Committee was naive, perhaps incompetent, to use disreputable historical material but believed words such as "grossly inaccurate" or "erroneous" would keep Chapelle out of jail and his wallet intact. Anders Richter, head of the Smithsonian Press read the manuscript with interest. He recommended it was too long for any periodical and should be submitted for possible publication in book form within the Smithsonian's own *Contributions from the Museum of History and Technology* series. Richter was formerly with the University of Chicago Press. The question of libel and defamation was adequately covered but Richter lamented:

Personally, I would have hoped that the work gave more emphasis to the positive question of dating the vessel, and less weight to the negative matter of hoax or deliberate falsification, but there is no point in an editor's second-guessing an author on how he has chosen to treat his material.¹⁰³

MARINER'S MIRROR, 1967-1969

Though the Baltimore committee was to this point unaware of Chapelle's manuscript, tempers soon flared offering a glimpse of the climate of the time. Tipped off in June 1967 by a correspondent in British Columbia, Polland became upset over a recent offhanded and brief remark about the authenticity of the *Constellation* made by Dr. R. C. Anderson in a review of a book on HMS *Victory* in the respected British maritime history journal *Mariner's Mirror*. Polland was incensed that Anderson in but a few lines, would echo Chapelle. His fiery first letter was forwarded to Anderson by Capt. T.D. Manning, editor of the journal who replied that they were not interested in publishing any "protracted argument." Polland considered Manning's reply inadequate. "The more I think about this, the more it behooves me to 'tell off' our 'intrepid' Captain Manning, however, I'll try to contain my temper awhile longer...." Enlisting the aid of a local ally of the Committee, Frank D. Scott, Polland registered another strong letter of complaint and based upon Dr. Anderson's recommendation, Manning agreed to publish part of Polland's first letter. Anderson wrote Polland an apology and in return received a copy of the SNAME book. Even the mild portion of Polland's published letter to Manning was interpreted by some as "tart criticism" of the highly respected Anderson. Dr. Anderson was a long-time friend of Chapelle.¹⁰⁴

Polland was surprised when his letter was followed some issues later by a two paragraph rebuttal by Chapelle, prompting Frank D. Scott to write to Manning in November 1968 in an ominous manner:

It has come to my attention that the "Constellation Restoration Committee", has had a meeting with the higher offices of the "Smithsonian Institution", and that an arrangement has been made, to the mutual satisfaction of both parties concerned, to protect their individual interests concerning "*Constellation*".

Complaining that Chapelle kept dredging up the old "Yankee Race Horse" article, Scott promoted the SNAME book as a masterfully detailed account of the ship.¹⁰⁵

In a similar letter another local ally plus Frank Scott both complained about Chapelle's *Mariner's Mirror* rebuttal directly to S. Dillon Ripley, Secretary of the Smithsonian. One writer questioned how a prestigious institution could lend itself to a negative stand such as that indicated by "your Mr. Chapelle." Charles Blitzer, the Smithsonian's Assistant Secretary for History and Art replied for Ripley:

I am sure you can appreciate the difficulties that would arise if we were to attempt to evaluate the published views of all of our staff, whose specialties range from astrophysics to zoology, from anthropology to oriental art. Like a university, we feel that qualified scientists and scholars have earned the right to publish their findings and their views, and that the criticism of their peers will best establish the degree of validity of these views.

Finally, let me say that we have recently been in touch with the Constellation Restoration Committee and are in the process of working out an arrangement for

publishing both sides of the Constellation Question so that everyone will be able to judge for himself.¹⁰⁶

Polland then fired a second fiery letter off to Manning, bitterly complaining about Chapelle's use of the "Yankee Race Horse" article and the fact that Chapelle never visited the *Constellation* to view the physical evidence first hand. Manning replied that his board of directors had decided to publish only Frank Scott's letter about the rebuttal and that that would be the end of the *Constellation* controversy in *Mariner's Mirror*. Polland cancelled his subscription because Manning would not publish his last letter.¹⁰⁷

THE DEAL

In December 1967 Chapelle wrote,

Been working on *Constellation*, an amusing hoax. The great "Source", "The Roosevelt Papers", was destroyed when the Library of the Naval War College burned in 1946, according to the *Constellation* Committee, proved to have been non-existent; the Library had never been burned! A lot of childish forgeries of "official correspondence" occurred, in which shipbuilding nomenclature and terminology were astonishingly in error. It would be comic had not large sums, public and private funds, been squandered on the "restoration" of the corvette as a frigate.¹⁰⁸

By January 1968 the manuscript, now called "The *Constellation* Question," was internally approved and submitted to the Smithsonian Press for early publication. For critique Chapelle chose to send a draft to Merritt Edson, Jr. of the Nautical Research Guild. The Smithsonian Press, however, insisted on at least one more reader—preferably someone from the Committee, the Naval History Division, or historian Admiral Samuel Eliot Morison. Chapelle was incensed. He refused to allow anyone from the Baltimore group to review it, including Admiral Eller, "...well known to be committed to the opposition; emotionally concerned with the 'inspirational value' of having the ship on display." Morison, he believed, had no interest in the matter and little expertise in that particular area.

In the case of the *Constellation* paper I see no need for more referees and reviews. The manuscript deals with specific statements by the proponents and my references to official record in rebuttal. The important parts are matters of record not of my opinion or creation. I did not author the American State Papers, nor did I draw the plans in the Records of the Bureau of Construction and Repair, USN, in the National Archives, nor did I write the official correspondence in the Archives and I did not create the Fox and the Humphreys papers. I certainly did not originate nautical language nor shipbuilding terminology. What is so difficult about establishing validity of this simple manuscript? It has been in process for 5 months, at least.... Surely there has been ample time already in which to make a definite decision.

The solution was a compromise: a final review by William A. Baker. With two friendly critiques in hand the manuscript was ready for the editors when Chapelle's intentions were revealed in the press and the Baltimore opposition struck.¹⁰⁹

Within days of the newspaper article a lengthy letter was sent by Committee chairman Gordon M.F. Stick to Frank Taylor, Director of the Smithsonian's U.S. National Museum complaining that the Smithsonian endorsed Chapelle's views and therefore

impugned the credibility of the Committee, the Navy, the Department of the Interior, and even the U.S. Congress. Other letters were written to Maryland Senators claiming all the work done by the Committee, and all the donations (\$712,000) by citizens would be nullified if the book were published. Taylor's brief reply confirmed the Smithsonian's intentions to publish, ending, "No useful purpose would be served in withholding the information which the publication will present." Stick responded.

We do not know who asked repeatedly to have Mr. Chapelle make statements about his findings.

When you state "no useful purpose would be served in withholding the information which the publication will present" we, in turn, ask *what* useful purpose will be served by publishing it? Cui Bono?¹¹⁰

In July 1968 Maryland Senator Charles Mathias, Jr. wrote to Chapelle noting the curator's disagreement with the Committee and his forthcoming publication. Mathias, quoting newspaper articles, observed that the Committee claimed Chapelle had not been aboard the ship since her delivery to Baltimore. The Senator invited him to tour the ship with him and meet with the Committee. Chapelle replied that he knew the *Constellation* very well, having visited her many times in Newport and once in Baltimore soon after her arrival. He believed that it would be useless to try to collect valid evidence after the ship had been altered. Chapelle lamented that his position had been known for twenty years and the Committee would never discuss *his* documentation, instead putting forth only more documentation supporting their own claims. Chapelle offered to discuss his views with the Senator and show him the evidence.¹¹¹ Records do not indicate that the invitation was accepted.

Publication of Chapelle's manuscript did not go fully unopposed at the Smithsonian. Dr. Robert P. Multhauf, Director of the Museum of History and Technology (MHT) believed the manuscript gave the impression that the *Constellation* argument was of mainly local importance and that Chapelle was too narrow in his approach. Like Richter, he wished Chapelle would have written more about the history of the ship and 19th century ship building techniques. Multhauf could see no value in reprinting "Yankee Race Horse" and was, he admitted, unable to follow the complexities of the argument as portrayed in the draft. "But I do not think that I would be doing you any favor to pretend that I think you will accomplish your objective with this manuscript. I think rather that its publication would be very unfortunate for you and for the MHT." Recognizing that the MHT Publications Advisory Committee had already accepted the piece and Anders Richter perhaps improperly had welcomed the work prior to formal approval, Multhauf acquiesced under protest: "All right. I give up. What happens now?"¹¹²

Congressional pressure notwithstanding, Chapelle's manuscript plus the Edson and Baker critiques were carefully re-reviewed by staff at the Smithsonian who, except for Robert Multhauf, solidly favored publication. It was personally approved by Secretary Ripley on about August 1, 1968. Normally the Secretary was not required to approve every publication but this one was different. Gordon M. F. Stick wrote directly to Ripley to complain and Charles Blitzer replied that the Smithsonian was founded with a mandate for the increase and diffusion of knowledge. Blitzer again observed that in the scholarly field, the sponsoring institution was not expected to guarantee the correctness of everything in a manuscript and that in this case, Chapelle's work indicated serious scholarship which deserved being shared. Blitzer deeply believed in the free competition of ideas and

scholarly points of view. Pressure by the Committee continued and several months later Blitzer met with Stick, Polland, and Michel to seek some "procedure" to satisfy everyone and to avoid what he believed to be an unpleasant situation from which no one would benefit. The agreement worked out was that Chapelle would give the Baltimore Committee a copy of his manuscript and, if they chose, they could submit a rebuttal paper. The rebuttal would be reviewed the same way as Chapelle's and if deemed appropriate, both papers would be published under the same cover. Chapelle began searching for an outside publisher.¹¹³

Charles Blitzer berated Chapelle for his lack of enthusiasm over the deal and foolishly suggested that his scholarship was so firm that Baltimore would probably decline to offer a rebuttal. He reminded Chapelle that the new vice-chancellor of the Smithsonian would be Vice President Spiro T. Agnew, former Governor of Maryland and Chapelle's agreement to the deal would spare the Institution further harassment.¹¹⁴

As the *Mariner's Mirror* affair seethed in the fall 1968, Anders Richter sent Gordon M. F. Stick a copy of Chapelle's manuscript cautioning, "I see no virtue or gain in any effort to prevent its publication." No one, he explained, could prevent Chapelle from publishing his manuscript somewhere. The Committee believed the article represented a "hate campaign" based on lies and some apparently began to investigate Chapelle's career. At this time Chapelle privately did not intend to have the Baltimore rebuttal published along side his own work, but was waiting to read their response. The Committee agreed to a rebuttal and signed an agreement lifting their objections to publication. Polland was tasked with preparing the paper in three months. Philip Lundeborg, a member of the Naval Historical Foundation and former member of Samuel Eliot Morison's Operational History staff, acted as referee for both sides and shared a copy of Chapelle's work with Admiral Eller. Not realizing Lundeborg had been associated with Chapelle for nearly a decade in developing the National Museum's ship model and plans collection, Admiral Eller, in turn, strongly warned Lundeborg not to take Chapelle's side.¹¹⁵

During a meeting on December 4, 1968, according to Lundeborg, Admiral Eller expressed his regret that he, the Curator of Naval History at the Smithsonian, had become involved. The Admiral contended Lundeborg was being used and advised that it was dangerous for Lundeborg personally to be connected with the Chapelle inquiry. In reply, Lundeborg respectfully recommended that the Naval History Division request the Office of Naval Intelligence to investigate the possible falsification of official records relating to the *Constellation*. Lundeborg was not aware of the extent the Naval History Division was already investigating sources on behalf of the Committee but he believed Admiral Eller was immovably fastened to his repeated conviction that records would never show that the old *Constellation* had been destroyed. The Smithsonian was ready to batten down the hatches anticipating rough times with the Naval History Division in the immediate future. Obviously not aware of the joint publication agreement, Admiral Eller wrote a long official "Dear Dillon" letter to Secretary Ripley, ending,

Mr. Chapelle has established a merited reputation as an expert in sailing ships. Like most human beings, he can over-emphasize certain evidence and thus make a mistake. I believe this issue has been whipped to death too many times before and that it would be inappropriate for the Smithsonian as a government agency to sponsor the publication of this paper that attacks

President Franklin D. Roosevelt and that impugns the integrity of the Navy Department in its handling of CONSTELLATION, in its frequent reviews of records, and in its public statements by Secretaries of Navy, Chiefs of Naval Operations, and others.

May you have a happy holiday season and Merry Christmas....

Ripley thanked Admiral Eller for his thoughtful holiday letter and advised that the matter had already been agreed upon by both parties. Ripley chided him for suggesting that the matter was inappropriate for the Smithsonian to publish. Chapelle was angered by Admiral Eller's complaints. "The damned thing is becoming fantastic," observed Chapelle, who was delighted at Richter's serious suggestion that the Admiral's Christmas letter be published in the book.¹¹⁶ The letter was not included.

By January 1969 Chapelle had approached the Maryland Historical Society about publishing his portion of the manuscript. The Director of the Society found the manuscript convincing but doubted the Society itself would ever take a stand on the controversy. Nevertheless the Director offered to publish it if the Smithsonian declined. Publication might even, he observed, cost them a couple members of their Maritime Committee. But within days Chapelle reconsidered and thought the joint agreement might be to his advantage. Nevertheless, he was keeping his eye on the "checkerboard." Leon Polland sent a draft of his manuscript to Admiral Eller who expunged references to endorsements by the Naval History Division. Also deleted was about 20 percent of the total text featuring vitriolic observations about Chapelle, his views, and his material. Polland's finished draft was submitted to Charles Blitzer with complaints about the proposed book title, "The Constellation Question," on March 31. Forwarding a copy to Chapelle, Anders Richter promised that the "gratuitously offensive personal allusions" still surviving would be moderated by editing and asked that Chapelle limit himself to minor adjustments to his own manuscript. To no avail, Chapelle wanted the offensive material retained. Polland complained that Chapelle's name appeared 10 times in the foreword and his own only once.¹¹⁷

In March 1969 minutes indicate the Baltimore Committee voted to absolve itself of responsibility for Polland's rebuttal. But it was grateful Admiral Eller had volunteered to help edit the forthcoming manuscript. The eventual Baltimore submission was in two parts. The first part was a page-by-page critique of Chapelle's manuscript. The second part was a shortened version of Polland's 1966/68 SNAME book on the restoration of the ship. To Richter Chapelle complained about the inclusion of Polland's second part:

The essential question is — is the present ship the original vessel built at Baltimore in 1794-7 or is she not? I say that the evidence presented by me shows that the answer is negative. A reconstruction based on an affirmative reply to this question would therefore be erroneous. Hence I do not see any point in giving any serious attention to the Polland explanations of his attempted reconstruction.

Nevertheless, Richter proceeded with a three-part format: Chapelle, Polland's rebuttal, and the restoration material from the SNAME paper over Chapelle's objections. He retained the name "The Constellation Question" over Polland's.¹¹⁸

While waiting for the publication of the book Chapelle took advantage of Polland's material to investigate further. He was fascinated with the National Archives log of the Gosport Yard from 1850-53. Amused, Chapelle claimed he heard it had been

"discovered" by Admiral Eller's researchers and then ordered locked up. By February 1970 Admiral Eller retired and Chapelle wrote that he had heard from an unnamed "leading member" of the Naval History Division that they now supported his findings: "Of no great importance, but of speculative interest." Admiral Eller, he had heard, had ordered his researchers to find evidence that the ship was authentic and was terribly disappointed by their results. Naval History, Chapelle understood, was contemplating an inquiry headed by himself and including the Park Service.¹¹⁹

THE BOOK PUBLISHED, 1970

In late 1970 *The Constellation Question* was released with a resounding thud. Chapelle's part of the book began with a 16 page well-written but brief history of the building of the ship in 1797 and a second ship in 1852-55. There followed an attack on the improbable technical language of the Roosevelt Brief published in the 1961 "Yankee Race Horse" article, another section about the article's peculiar documentation of the Brief and a final section critiquing Polland's CNAME paper.¹²⁰

Chapelle wrote that fire could not have destroyed the Theodore Roosevelt Collection because it could not have existed. He was puzzled as to why Theodore Roosevelt would have the precious collection at all and then wondered why the Training Station at Newport was used as a repository. Chapelle then attacked note by note the authenticity of a number of documents from Newport used as citations in the "Yankee Race Horse" article. Following an attack on the technical semantics of the Capps Report and the incorrect sequencing of events depicted in the "Delano diary" Chapelle seized upon one document he found on his visit to Newport in April 1967.¹²¹

The testimony in 1904 of a shipwright named Davis to Capt. W.W. Meade regarding his experiences repairing the *Constellation* at Gosport in 1853-55 was a significant part of Baltimore's story. Chapelle could find no Capt. Meade listed in the *Navy Register*. He did find at Newport an odd document dated 1918 ordering the *Constellation*'s flag at half-gaff commemorating the death of Charles E. Davis. The order contained too many "whereas's" establishing not only Davis as a former Gosport worker but, in a blunt and heavy-handed way, the authenticity of the ship:

Whereas Mr. Charles E. Davis was responsible for the information leading to the proof that the *Constellation* was in fact built in Baltimore in the year 1797 and was not a model of 1855.

Whereas Mr. Charles E. Davis worked on the rebuilding of the frigate at the Gosport Navy Yard from 1853-1855.

To Chapelle, the document reeked of forgery. Published in the book after a facsimile of the 1918 order was the letter the Federal Bureau of Investigation sent to Chapelle in 1967 after it had examined the document. The FBI found that the 1918 order had been typed on a Royal Elite typewriter manufactured sometime after June 1950.¹²²

It is interesting to note that Chapelle had noticed a number of similar questionable documents but because he believed it repetitious, chose only this one to investigate and reveal. Leon Polland originally publicly doubted that the FBI had ever written Chapelle and stated so in the first drafts of his manuscript. It was not until FBI officials personally contacted Polland, that he removed his expressed doubts from the drafts. Chapelle's part concluded with a section criticizing Polland's restoration narrative which was located at

the end of the book. Chapelle attacked the physical evidence of hand-hewn timbers and dated spikes. One curious paragraph alluded to the alleged stealing of the offsets for the old *Constellation* from the Josiah Fox Papers at the Peabody Museum in Salem, Massachusetts. Though not mentioned in the book, Philip Lundeberg had discovered that they were missing in February 1963. He learned that they were last seen being used by a Committee researcher who had left the Fox files in disarray. Marion Brewington, then assistant director of the Peabody Museum, reported that he knew who had stolen the offset tables, but could not prove it. Fortunately, a certified typescript remained in their files. Apparently unaware of the background to the theft, Polland implied that perhaps Chapelle had stolen them.¹²³

Polland's part of the book began by disowning the "Yankee Race Horse" article:

In March 1961, the Constellation Committee published an article in the Maryland Historical Magazine presenting its views for the first time on this subject. Several conclusions therein leaned heavily upon documents which were transcribed from the originals that were purportedly lost or destroyed. Several typewritten copies have since been found to be of a questionable nature and have been discarded. This writer was one of the contributors to that article which, considering the restrictions of space in a magazine, is a rather thorough research outline on the subject of the Constellation frigate. Speaking for the Committee, the information contained therein was set down in every instance in good faith. I cannot state that I was in agreement with each conclusion, for I was not. Recognizing the weakness of that article....

Polland's shrill initial unpublished draft had said it differently:

As we have already pointed out, the reader should be fully alert to the fact that the article now under fire was published in *March of 1961*. This office has since recognized several deficiencies in that article which finally led to the writing of the Society of Naval Architects and Marine Engineers' (SNAME) paper in 1966. Why engage in a controversy over a magazine article, now generally unavailable and superseded by a much more comprehensive work? For a fact, the 1961 article is a much more vulnerable target! In any event, we do not intend to burden the air with pros and cons of a defunct magazine article when it is important that we get on with more relevant matters.¹²⁴

Thus Chapelle's sections on "Yankee Race Horse" and the Roosevelt Brief and their lack of provenance were deftly, if inappropriately, rendered moot. Polland then went on to critique all four of Chapelle's sections page by page. Though important to the contenders, the comments were tiresome, difficult to correlate and understand, and appeared picayune to some readers. Errors in semantics of historic documents were "bloopers" or typos. As to the FBI finding an apparent 1918 document typed after June 1950 – "So what?" asked Polland. In fact, regarding all the documents Chapelle cast doubt upon, Polland astonishingly urged the reader to accept them mainly because they existed. Regarding forgeries, Chapelle knew positively at least the Davis death notice had been forged and placed in the Newport files. Based on the inclusion of incorrect technical terminology he believed other documents essential to the Baltimore side were fakes. He believed, but did not prove, that at least one National Archives drawing had forged additions made in pencil. Polland admitted some of his previous writing had been based on dubious documents, but stood by the veracity of his documentation in the book. For

instance, regarding the "Delano diary" which Chapelle heaped suspicion upon, Polland wrote:

At this moment, we are of course, discussing the Delano notebook which Mr. Chapelle points out has not been produced by the authors of the 1961 article. Of course, the Constellation Committee too would like to find the original diary; however, the absence of that prime source, we have to be content with what was we found at the National Archives in Washington, D.C. officially stamped NA-RG 45. While this writer has some reservations concerning this typewritten copy, we have to work with whatever is available. If we cannot get to the truth, we must get as close to it as available information will permit, and that means cool-headed interpretation of much questionable material.¹²⁵

Throughout all of his previous publications Leon Polland presumed that the author of the alleged "Delano diary" and constructor of the *Constellation* in Gosport, 1853-55, was Benjamin F. Delano, a popular ship designer from New York and a distant relative of Franklin Roosevelt. Howard Chapelle also believed the same. In helping research the Committee's portion of *Constellation Question* it was likely that Loyd Olsson discovered that the constructor generally in charge of the *Constellation* at Gosport was Edward H. Delano. The information obviously arrived in time for Polland to change his drafts but not Chapelle—an advantage Polland capitalized upon.¹²⁶

The two sides of the book might be described simply. An idea developed since 1960, Polland believed that the original ship was designed by David Stodder in Baltimore, not by Joshua Humphreys. The ship design was 50 years ahead of its time. Plans to Stodder's ship could never be found. When the ship was at Gosport in 1853, in preparation of hauling her out of the water, a set of plans of that ship were drawn, partially derived from the unused Humphreys drawings. These drawings were useless, he believed, but retained anyway. New drawings were made from the existing ship and on the mould loft floor they were partially modified by John Lenthall to convert the frigate into a sloop-of-war. The offset measurements from the mould loft floor included some old measurements and some new.¹²⁷

To the contrary, Chapelle believed the original ship was designed by Joshua Humphreys and Josiah Fox and built closely to their plans, which still existed in archives. When the ship was at Norfolk in 1853 a set of plans was developed for dry docking which represented the existing ship. After use the plans were retained. John Lenthall developed a whole new design which was lofted in the normal fashion resulting in a completely new ship. The offset measurements from the mould loft floor were all new dimensions.¹²⁸

The question of whether Stodder or Humphreys and Fox designed the ship was simply determined by the acceptance or rejection of a number of documents primarily from the Newport Naval Training Station files, the Roosevelt 1913 memo, and the linch-pin April 30, 1795 letter, Stodder to Pickering which stated that Stodder redesigned the ship with 32 inch frame spacing: the same as is found in the present vessel. Chapelle would not accept the veracity of the Roosevelt material, the Newport material, or the correctness of the April 30 letter — all of which he believed contradicted verifiable documentation from the National Archives and he always flatly rejected the possibility that Stodder designed a mystery ship.¹²⁹

The question of whether a totally new ship was designed in Norfolk in 1853 or whether the design prepared there incorporated parts of the old ship could only be determined by an understanding of the design process involving drawings, half models, moulds, and offset tables. Chapelle saw none of the necessary clues indicating a partial new design. Polland, on the other hand, speculated and saw things the other way around.¹³⁰

Polland's ultimate defense against any criticism or unfavorable documentary evidence was what he called "archeology," or the ship as an artifact. *He* had the ship. He believed the dates and initials on the few copper bolts were genuine. Chemical tests showed that the copper pieces had various degrees of impurities and he concluded that the variances meant they were of different ages. On the frames of the ship he saw adz marks and sawing marks and concluded that the adz marks were from 1797 and the sawing marks were from 1853. These he, and anyone, could see and touch – how could they be denied? Chapelle implied the dated spikes were faked and believed that chemical variances in the copper and textural differences in the ship's timber were just that: variances with no necessary presumption of age.¹³¹

In the end both authors were intractable in their stand. No winner, no concessions. Polland hoped it would settle the question once and for all, but Chapelle privately observed,

God knows how the *Constellation* will end up but I don't expect my comments will stop the expenditures of public money on the fake. Nobody wants to read all that stuff and judge it.

Chapelle was correct. The nullifying effect of the material had even been accurately predicted by Charles Blitzer in his preface to the book. Noting Polland's denial of the "Yankee Race Horse" article, William A. Baker said "...I believe the situation is as obfuscated as ever." Baker wanted publication of more fakes, but Chapelle lamented:

Yes, I was glad to see *The Constellation Story* in print, for now the truth is on record. I have no plan for additional publication. The Navy's historical office has informed me that they have twice the evidence that I have, supporting my side of the argument. But most of it seems to be cases of error in time, or improper wording, etc. so is repetition. There are many more records, similar to what I showed you. But I feel that if my presentation is ineffective, the addition of more items of error and dishonesty will not convince. I often wonder what will convince in such a case. Here it is proven that the basic source of documentation is fraudulent, and that in spite of this the false documentation is quoted in the "rebuttal"!

To another correspondent he wrote:

A pretty silly affair on which I wasted much time and effort. Reason for this affair was that I was endeavoring to establish a procedure here (at the Smithsonian) for publishing of controversial material. In this I have been fairly successful.

The Baltimore crowd really hate my guts. Two efforts were made to have my manuscript on the *Constellation* suppressed but neither of the two successive Secretaries (sic) would consider the idea. As you will see, the whole story is a fabrication.¹³²

In reviewing the book, prominent maritime historian and scientist Dr. John Lyman speculated,

There are two possible conclusions that can be drawn from the material presented. One is that a recognized authority on the early American Navy some years ago advanced an incorrect opinion concerning a Navy relic; that, in spite of repeated efforts to convince him with newly discovered evidence (including a paper prepared by the late Franklin D. Roosevelt), he has stubbornly refused to acknowledge his mistake; and that his captious criticisms have seriously hampered the efforts of a group of dedicated individuals to restore the relic to her original condition.

Conversely, it could be concluded that an historic ship has found its way into the hands of a band of confidence men, who have not hesitated to invent false documents that support their position, nor even to plant forgeries in public archives, and that in the process they have gravely damaged the professional reputation of the only historian competent to point out the true facts...The significance of the matter at issue goes far beyond the intricacies of wooden shipbuilding and design. It relates to the whole structure of contemporary society. Whom can we believe?¹³³

* * * * *

LEON POLLAND INVESTIGATES, 1960 – 1970

Leon Polland's detailed daily work notes did not indicate that except to see ships plans, he extensively personally visited archives searching for written documents to defend the authenticity of the ship. If he did, it was not reflected by much fresh archival material in his own writings. Instead, his documentation mostly came from a file of papers, books, and drawings he found already on board the *Constellation* when he assumed his duties as architect and de facto historian in June 1959. Donald Stewart, and to a lesser extent, John Schneid beginning in March 1956 had been mostly responsible for collecting what Polland inherited. It appeared that Schneid's interest lay mainly in ordnance and the Lenthall Papers in Philadelphia while Stewart had a fascination with Franklin Roosevelt's papers. In 1959 very little copying was done by Xerography – it was too new. The historical files aboard the ship were copies of documents made by thermofax, photostat, or in many cases typed transcriptions bearing incorrect, poor, or in the majority of cases, non-existent labeling as to the source and the person who collected the material. Midshipman Frederick Meyett saw the collection while working on a Naval Academy course paper on the *Constellation* in 1963 and his bibliography documented many parts of the Baltimore collection. The exact contents of the files were inventoried when they were officially turned over to Polland in 1965. According to the inventory, the Committee collection consisted of seventy items reportedly from the Roosevelt Library, Newport navy files, Boston Navy Yard files, National Archives, and the Lenthall Papers at the Franklin Institute in Philadelphia. Though difficult to recognize through vague citations, it appears that the important sources of the Committee's claims were all in the collection at the time of the turn-over in 1965. Polland eventually moved the collection from the ship to his home and indexed them adding much material of his own of better provenance but still rather poorly cited.¹³⁴

Perhaps Polland's first encounter with the peculiarities of the Committee's historical file came in 1960 when John Schneid wrote a letter to a Washington Navy Yard employee alleged to have researched and written a synopsis of historical data he found at the Library of Congress about the ship. Polland had found the data did not agree with other documents in the collection. The letter was returned with the addressee unknown. Related to his restoration plans, Polland noted that surprisingly detailed descriptive material reportedly found by a *Constellation* employee in the Library of Congress and attributed to Charles Stewart in 1813 did not agree with Truxtun's descriptions found elsewhere in the Committee collection. Polland expended considerable effort, but the Charles Stewart letter could not be relocated. Although acknowledging the discrepancy, Polland's notes do not indicate that he was concerned about what the lack of provenance may have signified.¹³⁵

ROOSEVELT BRIEF

Along with other documents, by 1962 in *Frigate E* Polland himself abandoned the Roosevelt Brief upon which the March 1961 "Yankee Race Horse" article was built. His reasons for publicly shunning the Brief and disregarding other earlier used materials were never given nor can they be determined from his notes. Perhaps he learned something about them when he visited the Roosevelt Library in Hyde Park, New York during his honeymoon in May 1961.¹³⁶

TROUBLED ORTHOGRAPHY AND A CURIOUS OBSERVATION

In 1966 Polland received a number of friendly comments about his SNAME paper, but one expert in 18th century shipbuilding expressed concerns about anachronistic orthography, or spelling, of words in some of the 18th century sources used in the paper. Polland could not account for the discrepancies and it would be one of Chapelle's greatest contentions in years to come.¹³⁷

From 1967 until 1969 Leon Polland kept notes recording the behavior of a long-time *Constellation* supervisory employee who had access and contributed to the Committee historical files. Polland was distressed to observe that the employee's actions on board the ship indicated general instability; specifically, he believed, a flare for dramatic exaggeration and telling untruths. Polland recorded the date and a description of each instance of what he believed to be bizarre behavior. On August 8, 1968 Leon Polland observed the employee with a rubber stamp with the words "NATIONAL ARCHIVES COPY." In his notes, Polland commented, "—?"¹³⁸

TWELVE-FOOT EXTENSION

Shortly after reading *The Constellation Question* in 1970 Polland's supervisor, a naval architect at the Maritime Administration, suggested correctly that the Roosevelt scheme for lengthening the ship twelve feet was in fact unworkable and added, as others had, that some of the 18th century sources used incorrect terminology. Polland struggled with correlating the alleged FDR sketch with the ship itself and common sense, and it appears he never really solved the problem, resorting instead to a tenuous similar plan he devised.¹³⁹

ARTIFACTUAL EVIDENCE

In time, even Polland's unshakable belief in the "archeological" evidence offered by the ship faltered. Polland's ultimate defense against all contrary documentary evidence had always been what he believed he saw with his own eyes. With the ship at hand, he believed, documentary evidence was secondary. There were alleged dated copper spikes and bolts as well as observed areas of the ship's framing. These frames bore both adz marks and saw marks. He proclaimed in 1960 that those areas with adz marks dated from 1797 and those sawn were from 1853. Two more recent writers have believed the same. No one doubted that several textures and two cutting methods were visible. However, Polland would not see until ten years later that the observed cutting methods had not been valid indicators of age. Early on he had privately wondered why adz marks appeared in areas he was sure were 1853 material but his puzzlement was apparently never reflected in his public writings or statements.¹⁴⁰

According to a speech delivered by Polland, during a restudy of the structure of the ship in 1970 he decided that much less of the ship was original. For nearly 15 years both Leonard Cushing and then Leon Polland (and earlier allegedly Franklin Roosevelt) had generally claimed that the ship was original 1797 material from about the waterline (22 foot level) down to the keel. In 1970 Polland declared the only original material was below the 3-foot level: essentially only the keel and garboards. This radical back-down from the often-repeated Committee claims and the purported Roosevelt material was apparently never well-publicized.¹⁴¹

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AFTERMATH, 1970 - 1975

Relative quiet prevailed after publication of *The Constellation Question* and the Committee turned to completing the restoration of the ship and to securing funds from governmental sources. Donald Stewart proved especially active as a lobbyist and in 1970 Maryland Governor Marvin Mandel vowed the ship would be restored during his administration. The ship was a welcome and early participant in plans for the Baltimore inner harbor: a fully revitalized waterfront area serving visitors with attractions, restaurants and shops.¹⁴²

Admiral Eller retired as Director of Naval History on January 23, 1970 and Howard Chapelle retired as Curator of Water Transportation on February 1, 1971. Perhaps seeing his role as architect of the ship diminishing, Leon Polland began to index and copy the documents he had collected to defend the authenticity and to restore the ship. Provisions placed on funds from the State of Maryland added to his pressure in that now the state required a firm plan and price estimate for the work to be supported by them.¹⁴³

According to Committee Chairman Gordon M.F. Stick, Stewart's lobbying proved that the state legislature had no great love for the nostalgic nature of the *Constellation* but looked at it as an adjunct to the Maryland Naval Militia, a real para-military organization resurrected in 1967 and led by Donald Stewart, manned by military veterans, and supplied by federal and state military surplus. Related was the Maryland Sea Service, Inc., also run by Stewart in addition to his duties as Director of both the *Constellation* and the submarine USS *Torsk* (1944) also on display nearby. The Sea Service was a training and apprenticeship program for local boys aboard the *Constellation*. Polland was apparently concerned by the interconnection of the Committee, the *Torsk*, the Maryland Naval Militia, and the Maryland Sea Service, Inc. and coupled with dissatisfaction with his altered duties at the Maritime Administration in late 1971 he persistently appealed to Maryland Senator Charles Mathias to help secure him a job in maritime history at the Smithsonian. Perhaps he was unaware of Howard Chapelle's continued influential emeritus status at the museum. The job never materialized.¹⁴⁴

Investigations by the state in 1973 found some activities of the Maryland Naval Militia to be "erroneous" and "probably illegal." Committee positions were changed and Leon Polland's duties were diminished and gradually assumed by others. "The kiss of death!" he wrote. To him, the end was at hand when the Committee demanded that he turn over to them within ten days all of his documents and the drawings he had made. Multiple copies of all the pertinent material had already been made and on July 12, 1975, Polland returned all of the seventy-item historical file he had been given ten years earlier. He kept many duplicates of the material returned and he retained much of his own material. He wrote, "I am filled with gloom! They are trying to shut me out...and will not let me do...the job that must be done." Feeling he had stuck it out as long as possible Leon Polland resigned in dismay on July 18, 1975.¹⁴⁵

Howard I. Chapelle had died on June 30, 1975. While at work in Washington on December 2, 1980 Leon Polland would suffer a sudden massive and totally debilitating stroke. For the most part hospitalized, he would bravely cling to life until February 28, 1987.¹⁴⁶

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JOHN LYMAN ANALYZES, 1971 – 1975

John R. Lyman was born in 1915 and received his doctorate at the Scripps Institution of Oceanography. Following naval service in World War II, he became an oceanographer for the Navy and rose to be director of the Division of Oceanography. He later worked in that field at the Bureau of Fisheries and the National Science Foundation and retired to head the Office of Marine Science at the University of North Carolina, Chapel Hill. Besides a well-known oceanographer, Dr. Lyman was a respected west coast maritime historian who liked to collect statistics on ships.¹⁴⁷

A friend of Chapelle's, he had followed the *Constellation* question at a distance at least since 1958 (see p. 17). Following publication of *The Constellation Question* Lyman asked to write a book review for *The American Neptune*. Several maritime journals were avoiding reviews and Lyman believed Chapelle had been mistreated by the Smithsonian Press and the "Baltimore syndicate." Expecting trouble from Baltimore, as background for the review Lyman borrowed copies of the Gosport Navy Yard log and the 1853 offset tables from Chapelle.¹⁴⁸

Characteristic of all of Dr. Lyman's work, the book review was a masterpiece of logic. He applied his scientific inquisitiveness to the problem. After a brief description of the origins of the book, Lyman simply asked a number of questions about the documentation of the Committee's side:

Could Captain Tingey, for example, or any other Captain of the United States Navy in 1811 have written a sentence like "This ship has a strange feature in that she is very sharp forward, and this probably accounts for her great speed—some of which is lost by the flat transom that runs from starboard to larboard and from the taffrail under water to the post?" Or could Franklin D. Roosevelt have written in 1918 "The carpenter's mate was a busy man and most of his supplies and materials were either carried holed in the lower ship or in the case of masts and spars, were carried running from bow to stern through the channels of the ship"?

Could Roosevelt in 1918 while serving as Assistant Secretary of the Navy (and there was no Undersecretary in those days, nor were there any other Assistant Secretaries) have found time to prepare a manuscript on *Constellation*? In that year he visited the battlefield in France and contracted and recovered in turn from pneumonia, influenza, and a throat infection. Did Roosevelt relax in library stacks or on the golf course? And why, also, has none of his biographers or those of Josephus Daniels discovered and commented on the exchange of correspondence concerning *Constellation* in December 1918, when Roosevelt was making plans to return to Europe to wind up a number of Navy contracts? Is not a work of this nature evidence that an important figure might have been neglecting the primary duties of his office?

Is it credible that U.S.S. *Constellation* could have existed as a commissioned vessel from 1797 to 1852 without the Bureau of Construction and Repair being aware of her underwater hull form? And how did it come about that transcripts from documents in a Navy library destroyed in January 1946 are in the possession of the restoration committee yet escaped the attention of the Office of Naval Records and Library as late as 1944 when the last volume of *Barbary Wars* was issued?¹⁴⁹

Many Baltimore historical documents suffered, Lyman observed, from "tortured syntax and mangled nautical terms." Chapelle thought the review was splendid, adding he himself had been frustrated by reviewers ignoring the matter of forgeries. Chapelle admired Lyman's use of the descriptive "tortured syntax" characterization of some of the documents. He did not comment at all on Lyman's inference that the same tortured syntax evident in the forgeries was also evident in Leon Polland's writing.¹⁵⁰

Along with the book review, Lyman continued to investigate suspected forgeries. Like Chapelle, he was probably thwarted by his inability to secure "original" copies of suspect documents from the Baltimore files. He apparently obtained some much recopied pages of the Roosevelt Brief used in the "Yankee Race Horse" article of 1961 and the 1913 memo (see p. 22). Lyman wrote to Admiral Eller's successor, Vice Admiral Edwin B. Hooper, asking that the Naval History Division submit one page to the FBI laboratory for typebar dating. The division replied that it was unable to do so. Undaunted, Lyman had a sample examined anyway, apparently submitting it through his campus police department. The FBI could draw no conclusions because, due to multiple recopying, the sample page Lyman provided was too obscured. In October 1971 he got a copy of the original Roosevelt memo to the Director of the Bureau of Construction and Repair, 1913, and within a month surmised that the memo was a fake. By April Lyman had prepared a technical article but was at a loss as to where it should be submitted. The Naval Institute *Proceedings* rejected it and using friendly connections it was published in a relatively new journal.¹⁵¹

The culmination of Lyman's analysis of the problem was an article in the July 1975 issue of *Sea History* magazine. In it, Lyman immediately set aside the problem of forgeries since he believed the matter could be investigated without resorting to any of those documents. He observed that Polland's argument was predicated on certain hypotheses. He went on to meticulously dismantle each hypothesis using mathematics, geometry, materials employment, and chronology. Lyman, as others had, computed that a wooden ship with 32-inch frame spacing could not be enlarged exactly 12 feet. He then tackled the matter of the 1853 docking survey plan: was it a take-off or a development from the offsets of 1797? Lyman noted that the plan showed a hogged keel: evidence of a worn ship. New ships were designed with a hang, or reverse hog, as shown in the 1853 offsets. Clearly, asserted Lyman, the survey plan was a take-off from an existing ship. Moving to the building of the ship in 1853-55 he computed that according to the Gosport store returns and logs, more than sufficient timber had been withdrawn from stock to construct an entirely new keel. The article concluded:

Little more need be said. As Mr. Polland well said, "valid evidence exists in the remaining original documents as well as in the physical structure of the ship." But, contrary to the conclusions that he drew from these data, an unbiased examination of the material already published in C.Q. (*The Constellation Question*) leads to the unmistakable conclusion that the 1853 ship was built with new materials to a design different from that of her predecessor. Thus, neither in material nor in hull form is there any connection between the CONSTELLATION now at Baltimore and the CONSTELLATION launched at Baltimore in 1797.¹⁵²

This was, perhaps, an article Chapelle should have written.

The piece did not go unnoticed in the Baltimore press and Leon Polland had recently resigned. During an interview with Robert Erlandson of the *Baltimore Sun*,

Donald Stewart claimed to be receiving within three weeks a copy of a letter dated 1858 from John Lenthall to Oliver Wendell Holmes. The letter, according to Stewart, was in the "Greenwich Naval Museum" in England and he read from his partial notes of Lenthall's letter:

I regret to inform you that the Frigate Constitution at Portsmouth is unable to be saved. We are, therefore, building a new Constitution to be used only as a training ship, of similar material, but retaining her original form...Unlike the Constellation, which was rebuilt in 1853, we cannot rebuild the existing Constitution. In the case of the Constellation, which was not drafted from the Humphreys plans, she was of a sufficiently modern design to retain 34 percent of her original timbers.

Her hull frames were twice the thickness of those of the Constitution, which preserved more of the original ship. Constellation was of sufficient strength to lengthen her by 12 feet and modernize her.

Stewart added that the last person to request a copy of the letter was Franklin Roosevelt in 1914.¹⁵³

Lyman heard about Stewart's press statements and wrote to the National Maritime Museum in Greenwich requesting a copy of the Lenthall letter. They had no knowledge of the letter and they had not received any request from Donald Stewart. Lyman observed, "Apparently the concoction of false evidence is an activity that has not ceased." He sent a copy of the Greenwich reply to Erlandson at the *Sun*, adding, "I think your friend Stewart owes you some kind of apology and that the *Sun*'s readers deserve enlightenment." Erlandson checked with the Roosevelt Library regarding Stewart's claim that Franklin Roosevelt had a copy in 1914. The Library could find no evidence and Erlandson wrote to Lyman.

I just spoke with Donald Stewart aboard the Constellation, and he said he made a mistake when he told me the Lenthall letter was in the Greenwich Museum.

He said it is in the Archives of the Royal Navy, in London, and that he is awaiting a copy from them.

Mr. Stewart said that even the RN Archives do not have the original, but a photocopy which he said he saw there himself last December when he requested, in person, the still-undelivered photocopy.

Lyman replied.

So now the key Lenthall-Holmes letter is in the Royal Navy Archives!

To my knowledge, the Royal Navy maintains no archives of its own. Its papers are in the Public Record Office in London. Can you get from Donald Stewart the file number of the letter he saw? With that, we can obtain a copy in short order.

But have you pondered what a photocopy of a letter between two Americans would be doing in the PRO or what kind of photocopy they were making back in the days when FDR was AsstSecNav, or why it is taking so long to receive Stewart's ordered copy?

There is an interesting pattern to a lot of the CONSTELLATION documentation. Archives go to great lengths to prevent documents being stolen from them, but they have no safeguards against documents that are *planted* on them.

Chapelle with the aid of the FBI was able to expose one planted document, but there are clearly others in the National Archives and at Hyde Park. Now it appears one may be turning up in London!¹⁵⁴

Apparently Stewart never publicly produced the letter as the local readership became distracted by the trial of Maryland Governor Marvin Mandel.

John Lyman died on November 16, 1977 and his article was the last, in this study's opinion, good scholarship previously written about the *Constellation* question. Several articles and books published since 1975 have merely repeated one side or the other and, in some cases, have been seriously misguided.¹⁵⁵

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PART II

DOCUMENTARY RE-EVALUATION, 1989 – 1990

THE 1853 BUILDERS MODEL

Our renewed interest in the *Constellation* question began in March 1989. Colan Ratliff and I had long been familiar with *The Constellation Question* and in fact, as I was later to learn, I had been an undergraduate summer intern at the Division of Naval History of the Smithsonian at the height of the pre-publication controversy. Though I met Howard Chapelle several times that summer, we "little fellows" were oblivious to the drama being played out behind closed doors.

Colan Ratliff and I were paying a professional call on Robert Sumrall, Curator of Ship Models at the Naval Academy Museum and conversation turned to an article recently published in *The American Neptune* which included an endorsement of the Baltimore side of the question. We believed that the issue had been laid to rest, if not actually settled, with publication of *The Constellation Question* in 1970. But here it was again! Mr. Sumrall casually announced, "You know, I've had the builder's half model of the *Constellation* here for years. I don't think Chap or Baltimore ever knew about it because nobody ever asked. It used to be nailed over the door to the enlisted men's mess hall at the Naval Station Annapolis." The model had been donated to the Navy on March 6, 1929 and was currently in storage. Mr. Sumrall allowed us to borrow it for study and take it back to the David Taylor Research Center in Bethesda.¹⁵⁶

Confirmation that the model was an actual builder's model and not a decorative reproduction was very important. A builder's model of the *Constellation* as a sloop-of-war would present strong evidence that the ship embodied a totally new design in 1853. Half models had been regularly used by the Navy for ship design since 1820 and the creation of a half model would have been one of Naval Constructor John Lenthall's steps towards a fresh design. Had the sloop-of-war re-utilized any of the structure of an older ship, the engineering of the ship would have had taken place on the mould loft floor or drawing board where the old configuration would have had to have been established before the new lines could be faired. Impossible to accurately scale down the form of an existing ship to model format, a new half model would not have been employed by Lenthall unless he was forging a fully new design.¹⁵⁷

MODEL DESCRIBED

At David Taylor it was concluded that the half model represented an appropriate mid-nineteenth century sloop-of-war with lines visually resembling the *Constellation* of 1855. The dimensions of the model matched those of the 1855 *Constellation* exactly and in 3' = 1" scale: one of the popular American naval design scales of the mid-nineteenth century. It was mounted on a backboard lettered before 1929 in gold block letters: "1797. CONSTELLATION. CARRIED A BATTERY OF 38 GUNS. DESIGNED BY JOSHUA HUMPHREYS. BUILT AT BALTIMORE MD." It was observed that the model was clearly a one-deck sloop of fewer guns, not a two-deck frigate with 38. Here again were the inconsistencies of the *Constellation* question itself. The backboard, seen without disturbing the model mounted on it, was not recessed to receive the model and therefore was not the original working backboard or the model was not a builders model. A builders model in pristine shape would at least bear pencil or scribe marks on its surface or between the horizontal laminations of wood (called "lifts") indicating some of the designers index lines ("stations"). The model was painted and the paint appeared old but in unusually good shape. Unlike many half models, it had not been layered with paint every

time the wall on which it hung was repainted. Mr. Ratliff removed the model from the backboard by removing several oversized milled flathead wood screws and three oblong wooden keys were found in place to help hold the lifts together. The key system was frequently used as a means of temporarily holding models together between carving and disassembly in the mould loft. Unfortunately there was no writing on the back of the model or backboard. The whole model was x-rayed with a Gemini 300 ceiling-mounted x-ray machine at the David Taylor Research Center. These penetrating 14" x 17" images showed the model lifts to be held together with scores of square cut nails.¹⁵⁸

LABORATORY TESTS

Still reluctant to disassemble the model in search of markings between the lifts or under the paint, Ross Merrill, chief of the Conservation Laboratory of the Smithsonian Institution's National Gallery of Art was contacted. Mr. Merrill was immediately intrigued by the prospect of applying several scientific investigative techniques to the artifact. With conservator technician Kristin Casaletto a day was spent peering at the model and backboard with infrared reflectography. The infrared image of the painted surface of the model displayed live on a video screen might have been expected to reveal other layers of paint and especially lead pencil marks under the surface of the paint. The model itself proved remarkably free of multiple layers of paint – it appeared as though most of the paint was antique. No pencil marks appeared at all.

About to leave, it was decided to have one last look at the backboard. This time Ms. Casaletto's experienced eyes detected just the faintest ghost of lettering beneath the current legend. Excitedly she readjusted and slowly rescanned the area, detecting clearly the single word "Constellation" under the newer of two layers of paint and the more expansive label. No other words were found. The original label had simply been "Constellation" and had not included the other information about Humphreys, Baltimore, and 1797.¹⁵⁹

The model was briefly retained so that the National Gallery's Science Department could apply other techniques. Sensitive x-radiographs did not indicate pencil lines beneath the paint. Technician Lisha A. Glinsman's energy dispersive x-ray fluorescence (XRF) test using a Kevex 0750A spectrometer provided an impressive non-destructive analysis of the chemical makeup of the paints on the model. Her findings confirmed that the paints were ordinary types which might be expected to be used during the nineteenth and twentieth centuries. Technician Michael R. Palmer's microscopic sampling of the wood confirmed what eyes and noses had indicated: the model was made of soft pine.¹⁶⁰

DISASSEMBLING THE MODEL

With the model back at David Taylor it was decided that the next step was inevitable. Carefully the paint was removed from the model using a chemical stripper. It was decided that it was better to remove the paint before disassembly in order to establish and protect the true edge of each lift and to facilitate eventual lift separation. As the paint worked off it was observed that the gunports had originally been painted smaller and then overpainted larger. The hull below the waterline had been initially painted with a salmon-color undercoat and then overpainted with metallic gold. Other than the discovery of the original smaller gunports, nothing else was revealed down to bare pine. The backboard remained untouched.

Next Colan Ratliff carefully disassembled the model by extracting the scores of square cut nails peppering each lift. Each lift revealed the same nineteen transverse pencil lines. These were the designer's indexes repeated on each lift. Each lift represented a waterline. No other marks appeared except on the lift for waterline 8 (14'-16') which bore the word "Constellation" (*sic*) faintly written by brush in archaic longhand using thinned glue or dirty water.

Mr. Ratliff placed the lifts on the 1855 plan of the *Constellation* (128547 and 128584) from the National Archives which was in the same 3' = 1" scale. The lifts corresponded precisely to the 1855 plans. It was plain that this was, indeed, a model for a newly designed sloop-of-war named *Constellation*.¹⁶¹

ORIGINS OF THE HISTORICAL STUDY

The idea of reporting the findings through publication was intriguing, but it was realized that for readers to appreciate the importance of the half-model they would need to know at least the rudiments of the controversy. A simple question posed to John C. Reilly of the Ship's History Branch of the Naval Historical Center at the Washington Navy Yard resulted in our borrowing the largest ship's history file they had: the *Constellation*. As the automobile trunkload of boxes was examined the untold story of forgeries revealed in Loyd Olsson's research began to unfold. A check of the Howard I. Chapelle and other papers at the Smithsonian Institution Archives revealed more about the forgeries and the controversy surrounding the publication of *The Constellation Question*. Along with Leonard Cushing's papers from the Naval Historical Foundation at the Library of Congress and John Lyman's in San Francisco it was thought an interesting story but it lacked the "Baltimore side." In trying to establish Leon Polland's background and elusive date of death I was fortunate to find his papers, books, artifacts, drawings, and photographs untouched and in private hands. The owner most generously allowed us complete access to Mr. Polland's vast materials. All the collections appeared to dovetail remarkably well.

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THE 1795 HUMPHREYS PLAN

While the archival evidence was studied, Mr. Ratliff renewed his own intensive study of wooden ship design and building. He already had much experience in this area as a draftsman, model builder and long-term student of the field. He focused on the design of mid-nineteenth century naval vessels and to a lesser extent 18th century studies (see his Appendix A). We were accorded the courtesy of borrowing the Naval Academy's 22-1/2" x 72" original Joshua Humphreys design draft of the frigates *Constellation* and *Congress* drawn ("fecit") by William Doughty on January 15, 1795 (see p. 2). Chapelle had accurately identified this drawing as an earlier duplicate of the finished draft (in poorer condition) of these ships in the National Archives (#40-7-11A and B). Polland, understandably, had little interest in the Humphreys design but had seen the drawing in 1962. It was noted that the drawing was executed so finely that it appeared to be a lithograph. Marian Dirda, Senior Paper Conservator at the Library of Congress invited us to bring the draft to her for detailed examination.¹⁶²

Ms. Dirda established that the drawing was, indeed, a manuscript (hand-drawn) piece. It was exquisitely drawn in waterproof ink on four sheets of paper glued into one. The paper was the "wove" variety, an excellent drafting surface, bearing the countermark of J. Whatman, a well-known British paper maker. It was obviously genuine. More importantly however, were the hundreds of pin-prick marks perforating the paper at line intersections. The bar scale was well-used and the zero mark nearly worn through probably by repeated piercing by divider points. The paper draft had been mounted on several pieces of old scrap linen which Ms. Dirda identified as nineteenth century fabric. The divider pricks did not penetrate the linen backing. This indicated that the drawing had been used to transmit data before the backing had been applied sometime in the nineteenth century. Probably this was not an obsolete preliminary draft, but a master draft that contained usable design information.¹⁶³ Perhaps drawing #40-7-11A and B in the Archives had been traced from it. Perhaps either *Congress* or *Constellation* had been built from it.

* * * * *

GRADUAL INCREASE ACT

Perhaps Chapelle's greatest error in the *Constellation* affair was his incorrect assumption that the ship built in 1853 was somehow hidden from Congress because the Navy improperly used repair appropriations for funding new ship construction. Chapelle used the same assumption about certain other ships built in the first half of the nineteenth century. His erroneous statements about repair funds secretly used to build new ships with old names has never rung true and has caused some recent writers to attack his competency by examining the complicated histories of the individual "rebuilt" ships. This manner of attack has tended to confuse the matter even more as the real answer lay in the records of the Congressional appropriation acts.¹⁶⁴

It appeared surprising that no one, Chapelle especially, had paid attention to that column in the Gosport Yard store returns that tabulated charges to specific appropriations. The column was labelled "Gradual Increase, Repairs, Etc." Chapelle focused only on the word "repairs." Curiosity was sparked about what "Gradual Increase" meant and the origins of the appropriation were tracked back to 1816. The results of this research is reflected in the history of the ship in the beginning of this paper (see pp. 3-5). Clearly, the Navy was entitled, even encouraged, to build ships from materials acquired under the terms of the appropriation as modified in 1827 and there was no need, nor attempt, to "put one over" on Congress. The fact that the Navy did not go overboard with the option was governed by strategic and manpower funding considerations. Chapelle had been correct, it was agreed, that the matter deserved further study and others are encouraged to continue research into the philosophy and use, or lack of use, of this significant source of shipbuilding funds and materials.

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COMPUTER-AIDED CHRONOLOGY

To aid in the study of what happened between 1852 and 1855, two computerized chronologies were devised. One was a compendium of known event dates culled from the Gosport log, valid archival letters, and dated drawings. The second chronology utilized the Gosport store returns. The original return log was organized month by month and gave scattered entries for materials dispensed to each yard project. It also logged—in used materials turned in by each project. This computer program with over 400 entries was especially useful in pulling together similar materials dispensed to the ship over a period of many months. The fruits of this program are reflected in the history of the *Constellation* portrayed in the beginning of this study (pp. 3–5).

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TYPED FORGERIES

As a result of the discovery of the Lenthall half-model of 1853 and the outcome of the computer-aided design studies described in Appendix B, historical research regarding the *Constellation* controversy was pursued from a non-traditional viewpoint. Since the truth was known in the controversy, documentation which was contrary to the truth deserved extra scrutiny. Two particularly important and troubling typed documents were chosen for analysis: the undated letter from Franklin Roosevelt to F. Alexander Magoun with the curiously inaccurate "Delano diary" excerpt attached and the Admiral Capps Report of 1905-08 giving the history of repairs to the ship and upon which Polland depended for many of his hypotheses (see pp. 24, 35). Copies of these two documents were sent to the laboratory of the Federal Bureau of Investigation which had a group of experts specializing in identification of documents prepared by typewriter. It is important to repeat that almost all questionable documentation found in the Polland papers, sometimes duplicated in the Naval History Division papers, were in the form of typescripts, photostats, thermofax, and silver halide (photostatic) copies. Except for two cases no originals could be traced back to archives. Thus investigators were forced to use only copies which would not lend themselves to laboratory testing of inks and papers. The lack of locatable originals developed as one of the great similarities among all documentation specifically supporting the unbroken continuity of the *Constellation* from 1797 to the present.¹⁶⁵

The results of the FBI lab work indicated that both documents were typed on a Remington machine with a typebar introduced in 1946 or perhaps to a very limited extent only a few years before.¹⁶⁶

CAPPS REPORT

The Capps Report of 1905-08 was then a fake. It was a strange document fifteen half-sheets long, containing numerous parallels to other documents now known to be faked. Chapelle undoubtedly had never seen the photostats of the report in the Committee's file. Although Polland had accurately transcribed it in his 1966 SNAME paper, it was never described as an artifact. Poorly typed, the document was festooned with brackets and notes in bold "Magic Marker." Over the cover sheet was scrawled "Destroy Pye": presumably written by William S. Pye, a prominent naval officer who was attached to the Naval War College from 1913 until 1915 and again from 1942 until 1946. One might ask why Pye would have bothered writing "Destroy" on a brief and small report which easily could have been ripped up and tossed out. Inside, every paragraph except one was accented by ugly bold marker brackets perhaps added to give it a used look. As was typical of some other spurious documents, there was an "erroneous" section which indicated cognizance of the opposing view. In this case the Bureau of Construction and Repair said the ship was built anew in 1853. Notes by "FDR" indicated strict disagreement with the Bureau's view and demanded "omit."¹⁶⁷

MAGOUN LETTER

The Roosevelt to Magoun letter with "Delano diary" excerpt was also typed on a Remington machine after 1946. Franklin Roosevelt died on April 12, 1945. The letter was undated and had Magoun's name misspelled "Magouse" and corrected by hand. The copy reproduced in Polland's May 1966 edition of his SNAME paper, curiously did not

have the hand-corrected name. Recall that the original was reported to have been found folded in an envelope inside an 1853 letterbook at the National Archives by a researcher (see p. 27). We were to perhaps imagine that Roosevelt himself accidentally left it there while researching this ship. After its "discovery" the document was added by the Archives staff to Record Group 45, Naval Records Collection of the Office of Naval Records and Library, which by nature is a collection of documents pulled from other legitimate files by Navy Department historians over the years. Hence, the letter today appears to be a bona fide part of the National Archives collections.¹⁶⁸

This letter was curious also, one of only two documents where an actual "original" could be located. The archival letter was marked "Copy" and was a tissue carbon copy. Strangely, it was signed in blue fluid ink apparently by Franklin Roosevelt. Close examination of the signature revealed that it had been outlined in dark blue ink and then filled in coloring-book style with a slightly lighter blue color. The purported original also demonstrated several erasures and repairs not apparent in copies. It was a preposterous fabrication. Were we to believe that such a letter was sent undated and misspelled by President Roosevelt, who personally signed his carbon copies? In all probability the Magoun letter was meant to be dated in the late 1920's when Magoun taught naval architecture at MIT and was interested in ship models and the refurbishment of the *Constitution*. The attached "Delano diary" seemed based on some actual chronology, probably derived from the real Gosport log, with added fictional events meant to confirm the continuity of the vessel. No trace of the real diary was ever found and the "Delano diary" was probably merely a one-page fabrication added to the fake Magoun letter. Overall the letter and the "diary" demonstrated the same poor spelling, "tortured syntax" and child-like remonstrative language common to many of the known and probable forgeries.¹⁶⁹ For examples of language see pp. 48, 54, 56.

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MANUSCRIPT FORGERIES

Of all of the materials in the voluminous Polland Papers and the Naval Historical Center files supporting the Baltimore contention that the current *Constellation* was built in 1797 only two documents appeared in manuscript or "hand-written" form. All other materials were typed transcriptions of alleged manuscript letters or copies of more recent documents prepared on typewriters. Several photostats of a manuscript letter were found representing the linch-pin letter of April 30, 1795 where Stodder specified that he changed the frame spacing of the ship to 32 inches. Other than photostats, an original has never been found (see p. 38). Chapelle, unable to account for the dimensions given in the letter was forced to declare that Stodder had simply made a mistake. Given the large body of genuine documentation demonstrating the tight centralized control over the design and the construction of the *Constellation* in 1795-97 (see p. 2) the idea that Stodder secretly redesigned the ship was quite far-fetched.¹⁷⁰

The second manuscript letter consisted of a photostat of a letter allegedly written by naval constructor B.F. Delano to the Chief of the Bureau of Construction and Repair on February 27, 1853. February 27 was a Sunday. Delano described a survey of the *Constellation* and revealed that two-thirds of the frames, keel, stem, sternpost, deadwood and bottom planking were good, reusable, and specified costs to "rebuild" the ship. The Delano letter photostat included a marking showing the original allegedly rubber-stamped "Copy from the National Archives" and additionally noted in pencil "To FDR 6/9/38." The letter was curious in at least two aspects: no original had been found and the letter was clearly signed supposedly by Benjamin F. Delano. Benjamin Delano was not the constructor at Gosport in 1853. It was Edward H. Delano (see p. 50). Regardless of their dubious content and provenance the 1795 and the B.F. Delano letters did demonstrate archaic handwriting and, we felt, would lend themselves to handwriting analysis. Both copies were sent to the Treasury Department's Bureau of Alcohol, Tobacco and Firearms Forensic Science Laboratory in Rockville, Maryland for a "not to interfere" handwriting analysis. Document examiner James Browne's written report revealed that both documents exhibited indications that they were simulations, that is, attempts to imitate older writing styles. Browne reported that, "Although the writer displayed some familiarity with older handwriting styles, his knowledge was not adequate enough to consistently reproduce the handwriting style of the period...Both (letters) contain more than one writing style and, indeed, some letter forms are consistent with more modern (post 1900) writing styles." Browne could not eliminate the possibility that both the 1795 and the 1853 letters were simulated by the same person and that the simulator was not the *Constellation* employee observed by Leon Polland with the National Archives rubber stamp. Both the linch-pin letter of 1795 and the 1853 Delano letters were demonstratable fakes.¹⁷¹

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THEODORE ROOSEVELT COLLECTION

What had survived from the actual Newport Training Station files held at the National Archives was a single roll of microfilm (T-1017) of historical documents from the Station administrative files. It was ironic to note that the roll was missing from the Archives shelf when first called for. From these files it was evident that T.J. Williams was indeed the Chief Clerk of the station and was a self-appointed expert on the *Constellation*. "T.J.W." appeared on almost all the Barracks B documents, many of which were supposedly copied by him from the Theodore Roosevelt Collection. Why they were copied and how the copies survived has never been postulated. Recall too the claim in October 1968 by the errant Stephen Brayden that he was the copyist (see pp. 37-38).¹⁷²

Much could be learned from the Archives microfilm about the possible existence of the reputed Theodore Roosevelt Collection of plans, documents and books alleged to have been housed in Barracks B, along with tons of priceless historical artifacts all reportedly burned in 1946. On February 1, 1926 the Secretary of the Navy ordered all units to report all material of historic value to the Naval Academy Museum. The Newport reply of the 11th listed a number of assorted relics predominantly from the Spanish American War and some assorted weapons. No documents, plans, or books were listed. On July 30, 1930 the Commander of the Station wrote to the Acting Secretary of the Navy in response to an order to report all relics, flags, and historical correspondence to the Department. G.J. Rowcliff wrote, "...all items of historic interest which were on the Station have already been disposed of, and there are no items now available in which the Department would be concerned."¹⁷³

It seemed unlikely that such a rich collection would exist in secret, despite numerous specific orders to report such materials to responsible historians. And why would such a collection have been housed in Newport? Theodore Roosevelt had written his *History of the War of 1812* before the Newport Training Station was established. The original building had been the city poor house at the time he wrote the book. In his introduction to his *History*, Theodore Roosevelt specified the documents he struggled with to research the work – logs and letterbooks. He did not mention, nor was there evidence in the text that he was familiar with the type of manuscript materials attributed to the collection. Relatively few draughts were required for the routine design of wooden warships. If the claimed 321 drawings supposedly in the Roosevelt Collection were added to the existing collection in the National Archives the total quantity would have been very large. Chappelle was probably correct stating that the 321 ship's plans claimed present in the collection was an impossibly extensive number. It is likely that we were to believe that Stodder's mystery ship was represented in the 21 *Constellation* plans now allegedly ashes. Two eyewitness accounts, especially that of the former Commanding Officer who routinely inspected Barracks B, coupled with the blueprints of the building and its space utilization in 1939 were substantial evidence of the fictional character of the collection.¹⁷⁴ Why were there no recorded efforts to retrieve the fire-resistant rare gun barrels, the stove, or the shot furnace from the ruins in 1946? It was concluded that the Theodore Roosevelt Collection probably never existed.

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FRANKLIN ROOSEVELT MATERIAL

ROOSEVELT BRIEF

Inquiries to the Roosevelt Library in Hyde Park New York were patiently answered by archivists Robert Parks and Raymond Teichman. The inquiries were covering territory the Library had been asked about many times over previous years. The archivists confirmed that the Library had no outgoing copy of the 1913 memo to the Director of the Bureau of Construction and Repair. After discovering in the Polland papers a copy of the Roosevelt Brief, upon which the 1961 "Yankee Race Horse" article had been based, a copy was sent to the Library with citation. The *Constellation* Committee copy found in the Polland papers was a smoothly typed document with a cover sheet titled "Early Construction of Frigates and U.S.S. Constellation (Yankee Racehorse), Franklin D. Roosevelt, Assistant Secretary of the Navy." As far as could be determined, not even Chapelle had ever seen a full copy of the Brief. Mr. Parks was able to find a near match in the Roosevelt papers, but not in the location cited on the Committee cover page. Interestingly, the Roosevelt Library version had no title, was crudely typed and had the same words as the Committee copy, but was in reverse chronology. The Committee version had six paragraphs that the Library version did not have.¹⁷⁵

Some of the Brief sounded familiar and a comparison indicated that half of the Committee version and much of the Roosevelt Library version was smoothly and intelligently written and was obviously derived from or related to Roosevelt's genuine 1914 SNAME paper "Our First Frigates: Some Unpublished Facts About Their Construction." His full 1914 paper mentioned nothing about any controversy surrounding the *Constellation* (see p. 6). However, the entire last half the Brief was devoted to defending the 1797 origin of the ship. Excusatory and remonstrative, the second half of the Brief, it was observed, did not match in style or ease, other paragraphs of the same document. It was believed the Brief was probably a fabrication with one part derived from Roosevelt's 1914 paper and another part appended by someone else. The crude copy of the Brief possibly was brought in and added to the loose, uncatalogued papers in the Roosevelt Library perhaps before 1958.¹⁷⁶

CHRISTMAS NOTE

The Polland papers also included photostats of the often-quoted 1918 Christmas note allegedly from Secretary of the Navy Josephus Daniels to Roosevelt wherein Daniels stated Roosevelt had proven the ship genuine over the dissention of the Bureau of Construction: a reference identical to the "erroneous" page of the Capps Report (see pp. 113-114). The Daniels note was represented only in the Polland papers as a photostat of a small note-sized typed document on plain paper. Along the border of the photostat was a citation listing "General Services Administration, National Archives and Records Service, Franklin D. Roosevelt Library, Hyde Park, N.Y. Group 14 Historical Manuscripts (including naval items) (1908-32)." The citation sideband appeared to have been photostated along with the note. Even with the citation sideband, the document could not be located at the Roosevelt Library. Such a note was not mentioned by Carroll Kilpatrick in his book reprinting almost all Daniels-Roosevelt correspondence. In fact, there was no Roosevelt-Daniels material referring to the *Constellation* at all. The voluminous Josephus Daniels Papers at the Library of Congress indicated that Daniels

saved an unusually large number of copies of incoming and outgoing correspondence and while there were several informal notes bracketing December 18, 1918, this was not one of them. Further, it was clear from the tone of the two gentlemen's communication, that gracious Josephus Daniels, especially at Christmas, would most likely have used his always standard salutation of "My Dear Mr. Roosevelt..." rather than a clumsily punctuated "To-Roosevelt, disciple of John Paul Jones." Another curiosity within the text of the note was that the Christmas greeting is from "all the Daniels family" to Franklin Roosevelt. A religious and proper man, Daniels forgot to mention Mrs. Roosevelt and the five children. Never noticed has been the missing question mark from the second sentence: sloppy punctuation by Daniels, a former newspaper editor? We were asked to believe that in the middle of the World War I naval demobilization, with Roosevelt ill and about to leave on an important trip to Europe, Roosevelt and Josephus Daniels had the time to consider the lofting of the USS *Constellation*. This document was very probably a forgery. And despite many previous Baltimore claims, Franklin Roosevelt said he did not have any greater love for the *Constellation* than for any other historic American naval vessel at the time.¹⁷⁷

1913 ROOSEVELT MEMO

The July 31, 1913 memo of Roosevelt to the Director of the Bureau of Ships was a crude affair readily accepted apparently by everyone except Chapelle after its reported discovery by Donald Stewart in April 1958. It has been accepted by scholars as genuine as recently as 1989. The original can still be found in a correspondence file in Record Group 19 at the National Archives. It is an onionskin carbon copy somewhat larger in physical size than other documents in the file.¹⁷⁸

The probable forgery had many mistakes and it is surprising so many people were so willing to blindly accept it. Superficially, it had an incorrectly formatted typed letterhead: a blank carbon copy would not have had a typed letterhead because the first copy was always a pre-printed memo form with printed letterhead (see p. 22). There was no file number. The modern date sequence of "31 July, 1913" was not only anachronistic but bureaucratically improper with the use of a comma. There were fourteen typographical errors in the Archives copy: hardly executive-quality typing. Most blatant was the use of the term "Director" for the chief of the bureau. Certainly as Assistant Secretary of the Navy and a naval historian, Roosevelt knew that the title was "Chief"—as it had always been since 1842.¹⁷⁹

Apparently unnoticed by anyone since 1958 was the unmistakable fact that the document stated, "...the *Constellation* has the original keel, frames from six foot upward from the keel, ..." The word "from" used twice formed a logical impossibility in describing that area of the ship.¹⁸⁰ It was a mistake not likely to have been made by a technically competent writer.

Generally the 1913 memo embodied all the typical traits of the forger. The memo had no point. Unlike genuine military memoranda, it did not direct anyone to do anything. All it did was expound and remonstrate. It seemed preposterous that Chief Constructor Richard M. Watt had to be told by the Assistant Secretary of the Navy that "hogged" meant "warped." The memo was clearly a childish contrivance.

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BARRACKS B DOCUMENTS

A search was conducted for the remains of the Newport Naval Station files which contained numerous poorly typed documents each bearing the citation at the bottom "Copy - Document in 'B' Barracks - U.S. Naval Training Center - Newport - TJW." Chapelle, it was known, had found some of them *in situ* on April 24, 1967. However, later the internal files of the Training Station had been turned over to the federal records system and it was believed that the files containing perhaps 10 or 12 of the peculiar Barracks B copies were routinely destroyed in the late 1960's or early 70's. Some copies survived in both the Polland papers and the Naval Historical Center files. Some were duplicates and a few in the Polland Papers were unique and were never employed, perhaps due to their overly audacious claims. Several of the Barracks B document copies also bore the National Archives rubber stamp.¹⁸¹ The documents could not be from both Barracks B and the National Archives. They could not be located at the National Archives.

CHARLES DAVIS TESTIMONY

Perhaps unnoticed by the *Constellation* Committee was a unique pair of Barracks B documents: two versions of the same idea. Chapelle had already singled out the 1918 flag order regarding the death of Charles Davis, supposedly a shipwright apprentice at Gosport who converted the old *Constellation* to new and whose testimony to that effect was supposedly given to Captain W. W. Meade in 1904. Chapelle and the researchers of this study were not able to find listed in the *Navy Register* a Captain W. W. Meade serving in the Navy at that time. The wording and format of the flag order was suspicious and the FBI reported to Chapelle that the 1918 memo had been typed after June 1950 (see p. 48). In the Polland papers was found a similar memo, same date, equally suspicious, about the same subject, but without heavy-handed references to the authenticity of the ship.¹⁸²

The Meade/Davis testimony had no source citation whatsoever but was in the Polland Papers. It was titled "The following information is relative to the rebuilding of the U.S. Sloop of War 'Constellation'. Navy Department — 1913." Supposedly Robert E. Davis gave the interview to Capt. W.W. Meade while visiting the ship in Newport on September 17, 1904. It was a roughly typed single-page document prepared on an electric typewriter in the style of many of the Committee file notes. It was not marked as a copy and we were probably supposed to believe it was found by the Navy Department in 1913 perhaps as part of the Star Spangled Banner centenary preparations. Though collecting oral history was probably an uncommon practice of ship captains in 1904, the narrative was first person. After incorrectly stating the old *Constellation* was hauled into a large shiphouse, the narrator claimed the ship was "stripped down," the keel was "warped" and eventually the hull "cottoned": strange terms also found in spurious Roosevelt material. This poor technical language some were to believe, was recorded as used by a trained nineteenth century shipwright. Amusingly to the point, Davis asserted, "I will never forget the mess when it was discovered that this ship did not compare to the plans of her drawn in 1794 in Philadelphia. Someone was wrong, either they did not follow the plans or they built her from other plans. The spaces beside and between the frames did not match those of the half section of 1794...." It was interesting that supposedly the seventy-two year old shipwright could remember that Joshua Humphreys

worked out of Philadelphia in 1794, but could not recall the correct term for a sheer plan or timber and room in framing. It was suspicious that the death notice found in the Barracks B papers referred to this person as "Charles E. Davis" while the transcript of his testimony referred to "Robert E. Davis." It was further interesting to note that Charles E./Robert E. Davis also matched "Arnold Thomas" whom the Committee believed had testified before Congress in 1914. The Naval History Division had found no testimony (see p. 36). Polland avoided mentioning the Meade/Davis interview even when Chapelle attacked Davis' death notice. Perhaps Polland noticed the discrepancy in his records. The present researchers believed that probably Capt. W.W. Meade Robert E. Davis, Charles E. Davis, and Arnold Thomas were fictional characters.¹⁸³

Another amusing, particularly crude and unused document was a typed memo allegedly from the "Officer in charge of point" to Executive Officer, June 29, 1918. Titled "SUBJECT - Lines of the Constellation, claim her lines above water are not of the period claimed - (1797)-(1800)," the reversal of the "from" and "to" sequence (common to other dubious documents), the awkward and incorrect "subject" format and lack of letterhead immediately condemned this supposedly original copy. The ten following paragraphs beginning with, "Attention must be brought to the attention of the inquiry that there is no original material..." were perhaps the most outrageous and tortured remonstrations of the forger.¹⁸⁴

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MISCELLANEOUS DUBIOUS DOCUMENTS

DELAVY REPORT

The 1926 Delavy report was also suspicious. Often cited in Polland's writings, this document was only in photostat form in the Naval History Division files. The original appeared to bear a round rubber stamp identifying it as from National Archives Record Group 45 but no original had been found by Loyd Olsson. In the report Chief Boatswain's Mate, Edmund Delavy, Commanding Officer of the *Constellation* in 1926 mentioned that during dry docking at the Philadelphia Naval Shipyard, "...it was the opinion of the docking master that the old blueprint was accurate, but...it was found that her form did not match the prints.... It was found that the beam of the *Constellation* and also the shape of her underwater body were incorrect." Poor technical language aside, the report was trivial, rambling, crudely typed and noticeably similar in syntax and semantics to likely spurious documents attributed to Charles E./Robert E. Davis and to Charles Stewart and Thomas Tingey supposedly written over a century earlier. Even if not a fake, the Delavy report would also serve to confirm the fact that the Navy in 1926 erroneously believed the ship was built in 1797 and therefore would naturally conform to the 1795 Humphreys plans.¹⁸⁵

THOMAS TINGEY LETTER

Leon Polland utilized quotations from Thomas Tingey, the commandant of the Washington Navy Yard in 1811, in *Frigate E*, the 1966 SNAME Paper and *The Constellation Question*. Tingey supposedly wrote, "...this ship has a strange feature in that she is very sharp forward, and this probably accounts for her great speed...." Both Chapelle and Lyman questioned the semantics. Some of the Tingey material was cited as from the Tingey Papers, Naval Historical Foundation, Library of Congress. The Foundation's Tingey Papers at the Library of Congress were reviewed and only seven items were found. None of them dealt with the *Constellation*.¹⁸⁶

CHARLES STEWART LETTER

A letter from Charles Stewart to the Secretary of the Navy, January 2, 1813 was cited as from the Stewart Papers in the Foundation files at the Library of Congress. Polland's work notes indicate he knew the letter was important but was suspicious about discrepancies between this and an undated report by Charles Stewart as "Work Constructor-Captain" titled "To command the frigate *Constellation* after the rebuilding at Washington in the year 1813." Polland indicated that the typescript for the letter had been supplied by the employee he saw with the National Archives rubber stamp and after considerable effort Polland was unable to find an original. He later wisely chose to ignore the letter but accepted the report. Chapelle severely questioned the poor technical language demonstrated by the report. This study found that there were no Charles Stewart Papers at the Library of Congress and, interestingly, there was no Secretary of the Navy on January 2, 1813.¹⁸⁷

CHARLES H. BELL LETTER

Polland also used a letter from Charles H. Bell, Captain of the *Constellation*, to the Secretary of the Navy dated November 3, 1855 in both his SNAME paper and the 1970

book. The letter stated, "I have found the sailing quality of the Constellation much to my liking since the extension of the body...." Chapelle noted the strange terminology but was unaware of the unusual source of the letter. The framed letter, we were to believe, was a gift by Mrs. Chester Duber to the ship in November 1931. The Bell letter was transcribed only in an attachment to a memo supposedly written from the Commandant of the Boston Navy Yard to the Captain of the *Constellation* in Newport. Signed, but without letterhead, and bearing the Navy file number IX-21/M7-2(N), a copy of this trivial memo was supposedly also routed to the Chief of Naval Operations. The file number, it was found, did not conform to the Navy Filing Manual and the hull number was incorrect: *Constellation* was IX-20. Additionally, it was certain the *Constellation* had no hull number designated as early as 1931. The real Bell letter had never been found by the Naval History Division (see p. 36).¹⁸⁸

EDWARD L. COCHRANE REPORT

In passing, attention was directed to the Admiral Edward L. Cochrane notes Mr. Polland quoted in his SNAME presentation in 1966 (see p. 35). A very poor thermofax of the one-page document dated April 14, 1953 was found in the Polland Papers. Bearing the MIT letterhead and marked, reminiscent of the Capps Report, "NOT FOR PUBLICATION (STUDY ONLY)." One could only wonder why Admiral Cochrane would take an interest in the ship at that early date and then write a useless "study only" report to the file. And how did he learn about the 26- and 32-inch frame spacing problem and that Stodder had redesigned the ship? It would be half a decade before the Baltimore Committee would discover the discrepancy. The end of the study dissolved into the all too familiar remonstrative voice of the forger. The Hart Museum and the Archives of the Massachusetts Institute of Technology had no record of the document nor any idea why their respected Dean of Naval Architecture would perform such a useless exercise.¹⁸⁹ With little doubt, Admiral Cochrane did not.

It could be assumed that all of the initial forged papers were created and introduced between the start of the Committee's historical files in March 1956 and the inventory of the collection on December 3, 1965. To be sure, many of the forgeries were referenced in "Yankee Race Horse" which was penned in late 1960. It was observed that the forger probably maintained an arsenal of rubber stamps. He probably cut and pasted some examples of letterheads and perhaps the Roosevelt Library photostat sidebar and then recopied the simulated documents. It was also believed that in two instances material attributed to Leonard Cushing and found in the Polland Papers had been altered.¹⁹⁰ It was interesting to note that the names of persons, institutions, addresses and letterheads were probably easily culled from legitimate records in the Committee files or from archives. Selected elements of truth intertwined with false information is a common and essential part of many fakes and such elements can successfully convince even experts that the entire fabric is valid.

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SHIPS PLANS

DRY DOCKING PLANS

Many ships plans were found detailing both the *Constellation* of 1797 and of 1855. With few exceptions, these were taken at face value: a practice not always previously followed by those supporting the 1797 origin of the present vessel. Plans were, except for those tampered with, what they were labelled. Most important were the dry docking survey plans of 1853. One drawing on paper dated Norfolk, January 1853 accurately recorded in ink the shape of the very hogged keel of a ship named *Constellation*. The old *Constellation* was hauled out of the water on February 23, 1853 and this plan had probably been made using a common pantographic device while the ship was afloat. The drawing would help the docking master place blocks under the ship's keel when she was brought up on to the North Slip. Another drawing on linen dated Norfolk, February 1853 was prepared probably after the old ship was in the slip. Nine cross sections were each located on the skin of the ship by dimensions based on the exterior and the visible gunports. Regular transverse sections of this type are common as the "body plan" of most ship designs but customary drawings derive their shape from measurements from the imaginary centerline of the ship: in other words, from the inside *out*. This second drawing had its measurements given from the outside *in*. Such dimensions were probably useful in 1853 for building the shoring necessary to hold the ship upright while it was dismantled. Today the nine cross sections offer a record of the shape of the old *Constellation* of 1797 on the eve of her demise in 1853 (see Appendix B). Correct, Chapelle was adamant that both drawings reflected the form of the aged 1797 *Constellation*. Polland had found the drawings in the spring of 1962 and while he accepted the January 1853 drawing of the hogged keel, he speculated that the February 1853 sections drawing had been made in error but retained anyway.¹⁹¹ He could believe nothing else.

Important to Polland was a small "cloud" in the upper right corner of the section drawing. Inside the cloud was a diagram of a small portion of a ship's keel and frames with the dimension "32" marked. The cloud was titled "old." Polland believed this indicated the 32 inch frame spacing of the old ship. Chapelle believed the cloud and its contents had been recently added by someone and he reasonably questioned why, on a drawing of the *Constellation* in early 1853, it would be labelled "old" when the only *Constellation* measurable at the time *had* to be the old one. The original ink drafts at the National Archives were closely examined and it was noted that the pencilled diagram inside the cloud was composed of straight lines that were neither square nor accurately spaced. From experience, it was believed that it was unlikely a nineteenth century draftsman or constructor would have made such a non-professional sketch and it was questioned whether the "cloud" convention itself would have been in use at that time. The cloud diagram was probably hastily added by a researcher visiting the National Archives. At least two other ship drawings at the National Archives probably had been amended in pencil in order to bolster the 1797 origin of the present ship.¹⁹²

1853 OFFSETS

The matter of the 1853 offset tables never presented a problem to this study. Polland agreed they represented the ship today. They were, as labelled, "from the mould

loft floor." Had they utilized any portion of an existing vessel that portion would have been indicated on the offsets. Nothing unusual was indicated. It was important to note that the offsets properly allowed for a "hang" or reverse hog in the keel – as new ships would employ. The hang compensated for the tendency of new keels to first flatten under load and then hog with age. An old keel, already hogged to *any* extent could not have been reverse-bent into a like-new hang configuration. It appeared preposterous to expect that, given the amount of stockpile materials dedicated to the *Constellation* in 1853–55, the most critical structural member of the new ship would be a hogged and aged remnant of the old vessel.¹⁹³

TWELVE-FOOT EXTENSION

The Franklin Roosevelt schematic (see p. 24) showing a twelve-foot midship extension to the keel was proven unworkable by Polland and Polland's similar alternative scheme found unworkable by his supervisor at the Maritime Administration and by John Lyman. Another questionable "FDR" associated document, the drawing was not seriously considered, knowing that the concept of adding length to a ship amidships seemed to relate primarily to metal ships.¹⁹⁴

Study of several shipbuilding treatises of the period indicated that lengthening a wooden warship by extending the hull amidships would have been unlikely (see Appendix A). Drawings of ships known to have been lengthened were reviewed at the National Archives and several examples were found confirming that length was added at the bow and stern. These drawings also depicted the complicated redesign process required to make such alterations. In all cases, alteration drawings indicated both the former shape of the vessel and the altered shape: clearly recording both the old and the new. A wealth of documentation has been located recording the design of the *Constellation* in 1853–55 but no examples were found of the special drawings, calculations or communications which would have been required for reusing any portion of the 1797 ship. Every existing drawing comfortably reflected a completely new design of 1853.¹⁹⁵

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COMPUTER ARCHITECTURAL STUDY

Possession of the actual 1795 Humphreys design and copies of other significant drawings from the National Archives caused speculation that studies of these designs could be made using the advanced computers at the David Taylor Research Center. William Day, head of the Design Evaluation Branch, was enthusiastic about the project and asked Kevin Lynaugh, an experienced naval architect and specialist in computer-aided ship design, to help.

Kevin Lynaugh, a supervisory naval architect at the David Taylor Naval Research Center, volunteered to prepare a study of the interrelationship of Doughty's January 15, 1795 original draft of the *Constellation*, the key 1853 two-part dry docking survey plans (see p. 4) and the offsets of the 1853 design. Using several sophisticated software programs on a VAX II computer, Mr. Lynaugh entered the 1795 and 1853 drafts and the 1853 dry docking survey plans digitally into his system. Unlike the manual drafting techniques used years before by Pollard and Chapelle which left substantial areas of hull surface specifically undefined and therefore subject to the draftsman's interpretation, Mr. Lynaugh's computer program was able to analyze and compare in extreme detail and accuracy the three hull shapes. Accepting for analysis the Baltimore contention, Lynaugh took the shape of the presumed 1797 ship and lengthened it twelve feet amidships as postulated by Pollard and allegedly Franklin Roosevelt. The computer study indicated that essentially no portion of the hull of the 1797 ship matched the 1853 (or present-day) ship. The computer did indicate that the 1853 dry docking survey plans did, with considerable accuracy, match the 1795 Humphreys draft. This match confirmed Chapelle's contention that the hull of the old *Constellation* was accurately recorded by the related dry docking survey plans of January and February 1853. Therefore the old *Constellation* was built as designed by Humphreys and not redesigned by Stodder. The docking plans clearly depicted an 18th century frigate hull with considerably inward curving bulwarks or "tumble-home"; a fact that disagreed with several of the Committee's documents which claimed that the ship had been extensively modernized with the tumble-home removed during various repairs prior to 1853.¹⁹⁶ Mr. Lynaugh's study, Appendix B of this report, finds that the hull of the *Constellation* of today conforms fully to John Lenthall's 1853 design and not at all to Joshua Humphreys' 1795 design.

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"USS CONSTELLATION", 1797 TO 1979"

BY EVAN RANDOLPH

An article by Evan Randolph which appeared in the October 1979 issue of *The American Neptune* could not be overlooked. Mr. Randolph is a member of the Society of the Descendants of Commodore Truxtun and one of the founders of the Constellation Historical Society, Inc. He is not a naval architect but he did believe, perhaps facetiously, that the ghost of Thomas Truxtun followed him in daily life. The *Constellation* question has been pursued as a hobby. The Constellation Historical Society was established in 1981 partly to research the authenticity of the ship. It was not a part of, nor originally endorsed by the *Constellation* Committee. It was interesting to note that as recent as 1982, although both the Committee of that time and the Society agreed that the vessel in Baltimore dated from 1797, they were incompatible.¹⁹⁷

Evan Randolph's 1979 article was predisposed to positively link the ship to 1797. Apparently he had previously printed a cramped brochure which attempted to show how the various plans of the ship, when laid over various artist's renderings of the ship, indicated continuity. Based on this scheme, he believed that the *Constellation* was so heavily rebuilt between 1797 and 1853 that there was an interim version of the ship. Several scholars felt the idea of visually overlaying the two types of media lacked sophistication and was unreliable due to the normal distortion of image and scale one would expect in any artistic rendering. Because several early artistic renderings of the ship appeared to match the profile view of Pollard's 1959 plans of the ship, Randolph speculated that the *Constellation* was lengthened perhaps as early as 1831.¹⁹⁸

Randolph revised his specifics but carried over the concept of the interim ship to his 1979 article. By now he firmly believed that the ship in 1797 was built to Humphreys' plan. Based essentially on two significant erroneous assumptions and two now-believed forged documents, the article, it was believed, ranged wide afield of reason. Randolph put the two parts of the 1853 dry docking plans together and then formed crude lines for an earlier ship. However, he incorrectly assumed the ship was in the water when both parts of the docking plan were drawn. He was not aware of any scheme by which the measurements could be taken while afloat, therefore he believed the date of 1853 on the plans was erroneous and the docking plans dated earlier, probably 1839. It was a flawed assumption. Randolph discovered a hold plan of the *Constellation* from 1840 and believed it showed the bow of the ship sharper than the dry docking plan and similar to the Lenthall plan of 1853. Thus, he believed the Lenthall design included an existing sharper new bow of 1840. His error in interpreting the lines was most likely due to a lack of accuracy in drafting. To this study, the Humphreys plan of 1795, the dry docking plans of 1853 and the hold plan (actually a schematic drawing) of 1840 seemed compatible. Randolph employed and reproduced both the February 27, 1853 letter of B.F. Delano to Samuel Hartt and the Roosevelt memo of 1913 to bolster his theory: both now believed forgeries (see pp. 70, 73). Documents indicate Randolph was aware of some forgeries but these two eluded him.¹⁹⁹

Randolph's second erroneous assumption was that during rebuilding when the Gosport store returns reported wood being dispensed as "frigate," that wood was from the old *Constellation*. Randolph wrote:

Concerning the keel, this was listed in the Gosport Stores Report under 'keel pieces.' 1,277 cubic feet of keel pieces were used in July 1853: 28.8% was from the source labeled 'frigates,' 63.5% from 'ship-of-line,' and 7.7% from 'sloops.' I interpret this to mean that almost 30% of the keel of the new *Constellation* consisted of keel from the old *Constellation*.

The use of stockpiled timber has been previously described in this paper on pages 3-5. From this misunderstanding of the stockpile, he computed that 35 percent of the old *Constellation* was reused in the new. He supported this with the now known to be forged 1853 B.F. Delano letter (see p. 70), one presumptive newspaper snippet from 1853 and an ambiguous article in the Norfolk *Southern Argus* dated July 11, 1853.²⁰⁰

It appears the drive to justify the 1797 date of the present ship caused Randolph, and indeed most supporters, to construct complicated theories based on poorly founded assumptions to rationalize away the obvious. It was viewed that with impressive convolutions and a deceptively logical presentation, the article would appear to some as having merit, and indeed the Smithsonian, William A. Baker, the Peabody Museum and the Naval History Division broadly encouraged Randolph's inquiry.²⁰¹ It now seemed the article was seriously flawed in detail, interpretation, and basic concept.

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ARTIFACTUAL EVIDENCE

METAL

Peculiar circumstances surrounding the discovery by a workman of two dated copper bolts aboard the *Constellation* in 1964 were noted with interest:

This is to certify that while I was driving up spikes in the underwater body of the Frigate *Constellation* on June 17, 1964 I drove up one in the keel and it came through the keel on the otherside (*sic*). Mr. Stewart noticed a mark GNY near the neck of the spike and asked me to remove it. He asked me to remove another spike near the bow and one near the stern so that we could compare each one. As I removed the one near the stern I noted that it was very worn and had been turning in the hole through the keel. Both spikes were rubbed clean and the second spike had a mark of W-1812 which Mr. Stewart told me meant Washington Navy Yard and the date 1812.²⁰²

Telephone calls were made to the USS *Constitution* Museum and to Cdr. Tyrone Martin, historian and former commanding officer of the *Constitution*. We also spoke with an official at Mystic Seaport about the whale ship *Charles W. Morgan* (1841). No *dated* fastenings had yet been found in either ship despite the fact that Polland published photos of embossed bolts allegedly from the *Constitution* and the *New Hampshire* (ca. 1825). Polland's writings and papers curiously contain no mention of how dated bolts were supposedly obtained from these two ships.²⁰³ Perhaps they too were provided by the forger.

A small number of scattered bolts bearing dates of 1797, 1808 and 1812 plus "GNY," "T" and "W" had reportedly been found on the *Constellation*. This study examined several soft copper bolts from the Polland collection with stamped-in letters and dates. It was speculated that the forger probably secretly removed or partially extracted a few fastenings and then embossed the markings using a commonly available set of metalworking dies, returning them to position in advance of workmen's progress. A little help might have been given to make sure the innocent workman "discovered" the marked bolts.²⁰⁴

Less publicized than the discovery of the named or dated metal fastenings was a similar claim in late 1960 by the *Constellation*'s carpenter that while working on portions of the ship's masting, he discovered inscribed several names and dates indicating to him that parts of the upper masting had survived since 1834. That topmasts would survive that long was a tenuous assertion, but the inscriptions, the carpenter's claim and its apparent censoring could not be ignored.²⁰⁵

TIMBER

Our visit to the ship on June 13, 1990 confirmed a seemingly haphazard display of cutting marks and wood textures. The adz and saw marks seemed to appear randomly throughout the framing of the ship. It was believed that the explanation lay in the fact that much of the *Constellation*'s framing was built up of pieces of timber already shaped ("moulded") for other types of ships (see pp. 3-5). Some of the material had been adzed or sawn before it was stored at Gosport, perhaps as early as 25 years before. Doubtless, upon withdrawal from yard storage in 1853 some pieces were judged to fit the moulds for the new ship closely and were left largely as found. Other pieces needed to be

1down-sized or reshaped and were resawn or adzed again in 1853. To be sure, adzing was not replaced by sawing at any time. Adzs are still used in woodworking and were especially employed in the nineteenth century as a very precise way of shaping wood on the job. It was clear that no reasonable conclusions about age could be drawn from the texture of the aged and corroded timbers seen.²⁰⁶

No scientific test was found available up to 1975 which could date wood or metal with the degree of accuracy needed to discriminate between a 56 year span (1797-1853). The metal used in the *Constellation* of 1855 also may have been smelted years before using unaccountable scrap. Today it might be possible to date the keel timbers by dendrochronology, the study of tree-ring growth chronology. Such a study might be complicated by several problems plus the drawback that the stockpiled timbers used at Gosport in 1853 possibly came from a variety of unidentified regions and were harvested on a variety of dates.²⁰⁷

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FAKERY

Elimination of the typed and manuscript documents branded false by scientific study effectively destroyed the presently existing verbal historic basis asserting that the present *Constellation* was built in 1797. Add to those documents those which could be readily identified as clones and those which had no traceable provenance, and it appeared there existed no significant unambiguous documentary evidence whatsoever to support the 1797 origin of the present ship. Avoiding almost all of the significant false documentation to support the Baltimore side, the bulk of the thirty-nine illustrations brought into play very late in the controversy and used by Polland in *The Constellation Question* readily demonstrated the notably weak, nearly non-existent, case which survived when historical material *outside* the ship's historical files had to be relied upon.²⁰⁸

LACK OF EVIDENCE

There was found no genuine evidence in all of this study's research to indicate that any question over the authenticity of the ship existed before Howard Chapelle's early pronouncements. It was found that all documentation located dated before 1946 aggressively espousing the 1797 origin of the sloop-of-war *Constellation* or alluding to any controversy was proven or likely fakery.²⁰⁹

There was no evidence found, neither documentary nor oral, which indicated that anyone on the Baltimore Committee during the 1954-1975 period fully appreciated how heavily they depended on their own tainted historical files and how dubious many of their key documents were. In fact, conversations with several persons associated with the Committee during the period revealed that they previously sincerely believed and continued to maintain the view that their files and publications were thoroughly reliable and based on valid material. The Baltimore Committee was not, according to this study, a "band of confidence men" as had been postulated by John Lyman. Little concern was directed towards Howard Chapelle's material and some of those associated who were spoken to believed Baltimore had "won" the controversy but Chapelle had refused to admit defeat due to some egocentric personality defect: an opinion already rooted as early as 1958. In interviews the employee possessing the National Archives rubber stamp personally observed by Leon Polland was universally lightly dismissed as someone humorously prone to exaggeration and quite harmless. There was no indication that Polland told anyone else of his discovery, and there was no evidence found that anyone directly benefitted financially from the forgeries.²¹⁰

Why were the Committee and its wide-spread supporters taken in apparently so easily? Perhaps because the forger provided practically on demand what they so desperately wanted to know. Having devoted thousands of unpaid man-hours to the herculean effort of saving and then preserving the existing *Constellation*, those closely involved with the ship simply did not want to know that their beloved vessel, the "Grand Old Lady," was not all they were convinced she was. Mark Jones, in his introduction to *Fake? The Art of Deception* observes, "They (fakes) are, before all else, a response to demand, an ever changing portrait of human desires. Each society, each generation, fakes the thing it covets most."²¹¹

One might well speculate that the ghosts of poor Commodore Truxtun, Neal Harvey and the boy were probably still treading the decks in search of the right ship.

HOWARD CHAPELLE AND LEON POLLAND IN RETROSPECT

HOWARD I. CHAPELLE

The Constellation Question is arguably the least intelligible work ever published by Chapelle. Several people made poor decisions all along the publishing route. Doubtless, Chapelle was correct in his protest over the inclusion of Leon Polland's SNAME material under the same cover as it did not bear on the central theme of the question of authenticity.

The refusal to republish in *The Constellation Question* the "Yankee Race Horse" article but to still present Chapelle's two sections critiquing that article was foolhardy. The result was, for Chapelle, a well written, but too brief legitimate technical history of the *Constellation*, followed by two sections attacking "Race Horse" about which the reader of the book knew nothing followed by an attack on Polland's SNAME material which the reader had not yet read. Leon Polland's part was a tedious blow-by-blow rebuttal of Chapelle's attack followed by a reprint of his somewhat irrelevant SNAME material documenting his refurbishing effort. With the point of the book partly obscured by the inclusion of the bulky SNAME material, many members of the public tended again to judge that Polland through sheer weight of material dominated. Chapelle's contribution totalled 53 pages with 14 illustrations, Polland's 83 with 39 illustrations.²¹² One cannot help wishing Chapelle had taken Anders Richter and Robert Multhauf's early advice and written more about the positive aspects of authenticity as well as a good account of nineteenth century American warship design and shipyard practice (see Appendix A).

The erroneous belief that Chapelle never visited the ship has been repeatedly held against him. It is known that Chapelle was familiar with the unaltered *Constellation* in Newport and, unknown to the Committee, had indeed visited the ship once in Baltimore (see p. 45). It is interesting to note that Chapelle allowed Polland to repeat unchallenged in *The Constellation Question* the claim that he had never visited the vessel. Perhaps the statement escaped unnoticed by Chapelle.²¹³

Copies in original form of much of the Committee's documentation were never submitted to Chapelle for preview. Undoubtedly producing the "originals" would have raised more questions by Chapelle. Coupled with his conformed agreement to strictly limit changes to his *Constellation Question* manuscript after reading Polland's contribution and his likely fears of slander, Chapelle's ability to accurately assess the Baltimore documentation was severely constrained. As it stood, Chapelle admitted it was deliberately a safe and "milk-toast" rendition of his side of the argument. But to attack more strongly would, undoubtedly, have triggered more of the vituperative responses he knew the Committee (which he labeled "fanatics") was capable of generating. It was Chapelle's repeated observation that his documentation and his version of the history of the *Constellation* were conspicuously ignored by the Baltimore Committee. He was all too correct. It chose, instead, to attack him personally and defend its own stand. No one doubted the veracity of Chapelle's documentation although some recent critics have, perhaps to some extent mistakenly, questioned his interpretation.²¹⁴

It was found that Chapelle was generally correct in his views on the origin of the present *Constellation*. From his experience he probably intuitively sensed he was right,

but he was unsuccessful in communicating his thoughts forcefully. His misunderstanding of the Gradual Increase Act led him to speculate that the new *Constellation* of 1855 was a secret withheld from Congress. This early claim (see p. 9) became entrenched and often repeated. His opponents correctly sensed that this part of his argument was somewhat far-fetched and it became a focal point for some criticism. Chapelle's error was that he apparently was unaware of the modification of the Gradual Increase appropriation enacted in 1827 and based his opinion upon the original language of the 1816 legislation. He also failed to find or employ a number of letters from the Commandant of Gosport to the Secretary of the Navy during the 1853-55 period, the Gosport log and the Gosport store reports. Some of these were relatively easy to locate in the National Archives: Donald Stewart had found the store returns as early as April 1958. Chapelle knew of the store reports but chose not to use them. He wrote that was not aware of the log or letters until *The Constellation Question* was too far along.²¹⁵

LEON POLLAND

There was no indication that, over time, Polland substantially changed his general dependance on the Committee historical file even though to him there undoubtedly was evidence that many documents were forgeries. He simply always said they were "not reliable" due to age, errors in transcription and transcribers "license." Polland's personal notes were silent about the repercussions of the discovery of the employee's rubber stamp and of some tainted material. It seemed he considered each document valid unless proven otherwise. His notes indicated that at the Library of Congress he looked for at least one letter, a copy of which he said was provided by the employee spotted with the Archives rubber stamp. He could not find it. Instead of questioning the integrity of the Committee's historical files, Polland seemed irritated that his fruitless search was a waste of time. It is clear that, perhaps unlike a more experienced historian, he was reluctant to condemn entire sources of data such as the Newport Naval Station files, even when he knew there were numerous fakes and the entire source had likely been poisoned. His twenty years of muddled confusion between the Newport Naval Training Station, Barracks B, Naval War College, the Training Station Museum, the War College Library, the Naval Station files, and the Theodore Roosevelt Collection indicated that Polland himself did not locate or retrieve any of the most important historical documents and never fully understood from where much of the Committee's material supposedly came. Much of his confusion may have been the result of a deliberate smoke screen laid down by the forger. Regarding the Theodore Roosevelt Collection, Capps Report, and all the Newport Training Station material, in 1971 Polland would admit,

I would have to agree that my weakest point in "*The Constellation Question*" is the confusion surrounding the Theodore Roosevelt collection at Newport and the various documents which were found there. I should hasten to say that I did not have the opportunity to make that survey myself, however, the people we sent at the time were entirely dependable. They returned with the Capps Report and several other documents which are recorded, if for no other reason than on the strength of their existence.²¹⁶

It is interesting to note how several documents, the Meade/Davis alleged interview for example (see pp. 74-75), were used by Polland in "*Yankee Race Horse*" (1961), *Frigate E* (1962), *Frigate Constellation: An Outline of Present Restoration* (1966/68) and then dropped out of sight in *Constellation Question* (1969). Polland's progressive

deletion of some dubious materials seemed contrary to his minimization to the public of the forgery problem. As for what Polland considered incontrovertible proof of fakery, we do not know. He did have a standard and this standard allowed for acceptance of a document even though an original could not be relocated in the source cited. He tenaciously held much of the Roosevelt material and the Stodder story in high regard. To be sure, he was reusing speeches prepared from material cited in his 1966 SNAME paper as late as 1980 with little apparent concern for the weak and tainted nature, by his own admission, of some of the important evidence.²¹⁷

There was no doubt that Leon Polland was an honest man. It seemed that he was always pressed by time. For the defense of the authenticity of the ship he declined to consider the *Constellation* within the context of other ships of the period. Chapelle did so and was belittled by Polland as a library-bound historian: a "library mechanic." Perhaps Polland would have broadened his views if he had the time but the press of a regular nine-to-five job, commuting, and trying to lead a normal family life as well as supervising work on board the ship away in Baltimore made the number of hours available to him very limited. In addition to defending the authenticity there were the somewhat different projects of preparing plans for converting the sloop to a frigate, keeping the ship safe and afloat, recording notes and preparing letters. There too were wranglings with Committee members over support for his restoration plans. In the middle of all this in 1968 he and his wife Shirley began International Sail, an organization of tall ship lovers.²¹⁸

It seemed Leon Polland was the main victim of much, though not all, of the forger's work. We believed Polland worked with pen and drawing board mainly alone and perhaps did not communicate extensively beyond his chosen circle of consultants. He apparently did not consult with several long-experienced experts who might have aided him, perhaps because they might have disagreed with the plans to so dramatically alter the sloop. He chose others, perhaps less experienced, who largely supported his own views. It was interesting to note that regarding the masting and rigging of the *Constellation* as a frigate, Polland did investigate broadly, using books and treatises which were easier to locate, assess and assimilate than archival materials. In retrospect, the writers of this study admired Leon Polland's dedication, tenacity, drafting skills and organizational abilities.²¹⁹

* * * * *

CONCLUSION

This then is the story of the *Constellation*

The first *Constellation* was designed by Joshua Humphreys and Josiah Fox in 1795 and built by David Stodder in Baltimore. Completed in 1797 it was repaired and to some extent altered before it was brought to the Gosport Navy Yard, then dismantled in 1853 in the North Slip and her timbers auctioned off. At about the same time, the second *Constellation* was built at Gosport about 600 feet away in Ship House B. The second *Constellation* was designed by John Lenthall as a completely new ship. The ship was built simultaneously with the destruction of the old, and employed the old name. Under provisions of the Act of March 3, 1827 a large stockpile of live oak timber had been retained by the Navy in order to repair ships or build new ones. In 1853 the Navy chose to use some of that stockpile to build a new sailing ship to replace an old one. This was permitted under the Act of 1827 and did not require Congressional approval. The plan was not a deliberate secret.

The second *Constellation* was commissioned in 1855 and saw long service. In 1913 Assistant Secretary of the Navy Franklin Roosevelt pushed to have the ship, now confused with the old dismantled *Constellation* of 1797, refurbished for the centenary of the Star Spangled Banner.

In 1946 the Navy decided to scrap the ship but citizens, especially from Baltimore, pressed to save her. In 1948 Howard I. Chapelle, a well-known naval architectural historian, revealed that the present ship was built in 1855. The public was confused and turned to the Navy for advice. The Navy did not investigate historical records thoroughly at this time. It based its opinion on the negative finding that it could not locate a document which specifically said that the first *Constellation* had been destroyed, therefore the Navy had to presume that the present ship was built in 1797. This negative technicality helped encourage a group of Baltimore citizens to apply for receiving the ship for preservation and display.

A number of people became very emotionally attached to the preservation of the ship notable among these being Leonard Cushing, a naval architect in Boston. In 1949 Howard Chapelle's book *The History of the American Sailing Navy* was published and many people were reminded of his contention that the *Constellation* preservation attempts were ill-founded. Publicly Leonard Cushing attacked Chapelle's findings triggering the long heated debate.

The Maryland Historical Society formed a committee to study the authenticity of the existing ship and based primarily upon the Navy's claim of the lack of proof of destruction of the old *Constellation*, hastily certified the ship genuine. The ship was brought to Baltimore in 1955 and turned over to the *Constellation* Committee of the Flag House Association for public display. In response to Howard Chapelle's repeated attacks a scholarly article was published in 1961 by four members of the *Constellation* Committee which proved, they believed, that the ship was built in Baltimore in 1797. A few years later Howard Chapelle learned that many of the documents the article used as proof were probably forgeries.

Admiral Ernest Eller was a member of the *Constellation* Committee and was also the Director of Naval History for the Department of the Navy from 1956 until 1970. Admiral Eller arranged some Navy assistance for the Committee and helped convince the

National Park Service that the ship dated from 1797. A house of cards predicated on the Navy's vague statements was built from mutually dependant endorsements which included the Park Service, the Maryland Historical Society, and the Maryland State legislature. In 1959 Leon Polland replaced Leonard Cushing as architect and historian of the ship. He wrote several books and papers defending the historic authenticity of the ship and also developed plans for removing and replacing certain portions of the ship to make it look more like a warship of the 1812-15 period.

In 1967 Howard Chapelle, Curator of Water Transportation at the Smithsonian Institution, wrote a paper in which he sought to expose the authenticity of the present *Constellation* as a hoax. When the *Constellation* Committee found that the Smithsonian planned to publish the paper, it tried to halt publication. In 1970 the Smithsonian published Chapelle's paper and a rebuttal by Leon Polland representing the Committee in a book entitled *The Constellation Question*. The book was difficult to understand and the question was still thought by some to be unresolved. Both Chapelle and Polland were intractable.

Since 1961 many of the documents supporting the authenticity of the ship have been reviewed by the Naval History Division, Howard Chapelle, Leon Polland and others and have been found to be forgeries. Some of the forgeries had been planted in archives and continue to be erroneously considered bona fide.

This report has examined the history of the argument and drawn together for the first time many independent discoveries of forgery. Added to this study's verification of the faking of several other key documents, the body of forgery surrounding the authentication of the *Constellation* was formidable: probably 25 to 30 documents and altered drawings. This study also indicated that, in all likelihood, the forger was a long-standing employee of the ship.

Critical in triggering this study was the location and investigation of the designer's half model representing the second *Constellation* adding strong evidence that the vessel was an entirely new design of 1853. Advanced computer studies verified the fact that the shape of the old *Constellation* did not in any way match that of the new.

The *Constellation* of today is an important artifact that records a significant era in American warship design. It deserves to be preserved and displayed. Sifting out presumptions and forgeries, the located documentary, technical, and artifactual historical evidence indicates that the *Constellation* was built using essentially new materials to a totally new design at the Gosport Navy Yard near Norfolk, Virginia in 1853-55.

caveat historicus

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ENDNOTES FOR PARTS I AND II

1. Navy Dept., Chief of Naval Operations, Naval History Division, *Dictionary of American Naval Fighting Ships* 2 (Washington, DC: GPO 1959-1981): 170. On Humphreys' and Fox's roles see, Secretary of War to Joshua Humphreys, 24 June 1795 (p. 33); to William Pennock, 7 Nov 1794 (p. 90) and 14 May 1795 (pp. 109-110); Josiah Fox appointment, 16 July 1794 and oath, 17 July 1794 (p. 40); Secretary of War to Josiah Fox, 12 May 1795 (two letters, pp. 107-108); to John Morgan, 30 July 1795 (p. 117); to Tench Francis 29 June 1795 (pp. 115-117), in Record Group 45, Naval Records Collection of the Office of Naval Records and Library, entry 374, "War Department Letterbook on Naval Affairs." National Archives and Records Administration (hereafter this collection, entry and source will be cited as "RG-45, E-374, NARA"). There is some question whether the design of the frigate *Chesapeake* (1799) matched the other 36- and 44-gun ships. Edward L. Beach, *The United States Navy: 200 Years* (New York: Henry Holt and Co., 1986), pp. 29-32. For background on building earlier frigates see M.V. Brewington, "The Designs of Our First Frigates," *The American Neptune* 8, #1 (Jan 1948): 11-25. J. Fenimore Cooper, *Naval History of the United States of America* (Philadelphia, Thomas Cowperthwait Co.: 1847), pp. 123-135; Tyrone G. Martin, *A Most Fortunate Ship* (Chester, Conn.: Globe Pequot Press, 1980). On the relationship between Humphreys, Fox and Doughty, see William P. Bass, "Who Did Design the First U.S. Frigates?" *Naval History* 5, #2 (Summer 1991): 49-54.
2. "Instructions to the Persons appointed for building the Frigates," Aug 1794 (pp. 52-58); Secretary of War to Tench Coxe, 14 Nov 1794 and to Joshua Humphreys, 14 Nov 1794 (pp. 91-92) RG-45, E-374, NARA. Kenneth J. Hagan, *This People's Navy* (New York: Free Press, 1991), pp. 32-40.
3. K. Jack Bauer, *Ships of the Navy 1775-1969* 1 (Troy, N.Y., Rensselaer Polytechnic Institute, 1969): 14. Secretary of War to Jeremiah Yellot, 22 July 1794 (p. 44); to Joshua Humphreys, 24 July 1794 (p. 45); to David Stodder, 28 July 1794 (p. 45); to Tench Coxe, 9 Oct 1794, 17 Oct 1794, 22 Oct 1794 (pp. 85-86); John Stagg to George Claghorne, 3 Jan 1795 (p. 95); Secretary of War to David Stodder, 7 Apr 1795 and to Thomas Truxtun, 7 Apr 1795 (pp. 101-105); to Forman Cheeseman, 14 Apr 1795 (p. 104); to William Doughty, 14 Apr 1795 (p. 104); to James Seever, 14 May 1795 (pp. 113-114); Circular letter to all naval constructors, 19 May 1795 (p. 109); Secretary of War to Joshua Humphreys, 20 and 23 May 1795 (p. 109); to John Morgan, 23 May 1795; to David Stodder, 1 June 1795 (p. 111); to Josiah Fox, 23 June 1795 (p. 113); Circular letter to all naval constructors, 29 May 1795 (p. 110). Secretary of War to James Hackett, 24 Oct and 4 Nov 1795; to David Stodder, 26 Oct 1795; to John Morgan, 20 Oct 1795; to David Stodder, 29 Mar 1796; to Secretary of the Treasury, 8 Oct 1796; to Thomas Truxtun, 25 Oct and 2 Nov 1796 (pp. 138-140), RG-45, E-374, NARA. The shipment of the drawing is in Secretary of War to Samuel and James Sterett, 18 Feb 1795 (p. 98) all in RG-45, E-374, NARA. See "Dimensions and Sizes of Materials for building a Frigate of 36 Guns," Josiah Fox Papers.

Peabody Museum, Salem, MA and drawing "Frigate Congress and Constellation of 36 Guns" made by William Doughty, 15 Jan 1795, U.S. Naval Academy Museum. Eugene Ferguson, "The Launch of the U.S. Frigate *Constellation*," U.S. Naval Institute *Proceedings* 73, #9 (Sep 1947): 1091-1095.

4. Naval History Division, *Dictionary of Fighting Ships* 2: 170-171. Early repairs to the *Constellation* have not been well documented. See for example, Charles Scarlett, Jr., Leon Polland, John Schneid, Donald Stewart "Yankee Race Horse: The U.S.S. *Constellation*," *Maryland Historical Magazine* 56, #1 (Mar 1961), footnote 29: 25-26 (hereafter this article will be cited as "Yankee Race Horse").
5. W.B. Shubrick to John P. Kennedy, 18 Aug 1852; John Lenthall to J.C. Dobbins, 17 Dec 1853, Record Group 19, Records of the Bureau of Ships, Entry 49, "Letters Sent to the Secretary of the Navy," NARA; *Annual Report of the Secretary of the Navy, 1850*, p. 231. Harold D. Langley, "James Cochrane Dobbin," in Paolo E. Coletta, ed., *American Secretaries of the Navy* 1 (Annapolis: Naval Institute, 1980): 279-300. For background in the use of the Gradual Increase Appropriation, see Edwin C. Bearss, Historic Resource Study, *Charlestown Navy Yard, 1800-1842* 1 (Washington: National Park Service, 1984): 254. Alfred T. Mahan, *From Sail to Steam: Recollections of Naval Life* (New York: Harper Brothers, 1907), pp. 3-10, 25-35. The Gosport Navy Yard is now known as the Norfolk Naval Shipyard despite the fact that it is not located in Norfolk.
6. Richard Peters, ed., *The Public Statutes at Large*...3 (Boston: Charles C. Little and James Brown, 1846), "An Act for the gradual increase of the Navy of the United States," 14th Cong., 1st sess., April 29, 1816 (p.321). The word "increase" was used in 1816 and the word "improvement" was used in 1827 and 1833. "Increase" returns in 1840 and later. For background on the Gradual Increase law, see Robert G. Albion, *Makers of Naval Policy, 1798-1947* (Annapolis: Naval Institute Press, 1980), pp. 187-189; Charles O. Paullin, *Paullin's History of Naval Administration, 1775-1911* (Annapolis: Naval Institute, 1968), p. 177; William S. Dudley, ed., *The Naval War of 1812: A Documentary History* 1 (Washington: GPO, 1985); Bearss, *Charlestown Navy Yard* 1: 281, 319-321, 345-346. For an excellent history of Gradual Increase legislation see *Gales and Seaton's Register of Debates in Congress*, 19th Cong., 2d sess., pp. 348-376. The legislative history following 1827 can be tracked through progressive volumes of *Public Statutes At Large*.
7. On live oak, see Virginia Steele Wood, *Live Oaking: Southern Timber for Tall Ships* (Boston: Northeastern University Press, 1981); Alice Strickland, *Ormond-on-the-Halifax* (Holly Hill, FL: Southeast Printing, 1980), pp 27-31; Bearss, *Charlestown Navy Yard* 1: 61-62, 267, 269, 368; Bess Glenn, "Cathcart's Journal and the Search for Naval Timbers," *The American Neptune* 3, #3 (July 1943): 239-249.
8. On the relative similarity of hull shapes, see Appendix A. On cutting and stockpiling moulded timber, see Bearss, *Charleston Navy Yard* 1, 298-299, 308, 545-546, 538-539, 588 and vol. 2: 650-651, 797, 905-906. The Gosport stockpile is detailed in Record Group 19, Records of the Bureau of Ships, Entry 320: "Returns of Stores at Navy Yards and Naval Stations," vol. 175, Gosport

Store Returns, July 1, 1853 – July 1, 1854, pp. 17, 19, NARA. Building an earlier ship from the stockpile is in Bearss, *Charlestown Navy Yard* 2: 804. The trend to draw down the stockpile is evidenced in the statements of cost, or estimated value of stores on hand for each yard regularly listed in the *Annual Report of the Secretary of the Navy*. See that report for 1850 (p. 240); 1851 (p. 86); 1852 (p. 363); 1853 (p. 422); 1854 (p. 485). For storing live oak submerged, see blueprint, "Location of Live Oak," Navy Yard Portsmouth, NH approved 20 June 1931, Leon D. Pollard Papers, privately held (hereafter these papers will be cited as "LDP"). A Civil War era photograph of a timber shed at the Washington Navy Yard can be seen in James Barnes, ed. *The Photographic History of the Civil War in Ten Volumes* #6 (New York: Thomas Yoseoff, 1957), p. 167.

9. On shipbuilding programs at the time, see K. Jack Bauer, "Naval Shipbuilding Programs, 1794–1860," *Military Affairs* 29, #1 (Spring 1965): 29–41; Hagan, *People's Navy*, pp. 138–140; John H. Schroeder, *Shaping a Maritime Empire* (Westport, CT: Greenwood Press, 1985), pp. 1–18, 79–99, 187–190; C. Joseph Bernardo and Eugene H. Bacon, *American Military Policy: Its Development Since 1775* (Westport, CT: Greenwood Press, 1974), pp. 180–184; Leonard D. White, *The Jacksonians: A Study in Administrative History, 1829–1861* (New York: Macmillan Co., 1954), pp. 213–231. Part of the accounting trail for Gradual Increase expenditures during the period can be found in Record Group 217, Records of Accounting Officers of the Treasury Department, entry 809, "Office of the Fourth Auditor, Letters Sent to Government Officials, 1820–1868," vol. 7 and entry 765, "General Ledgers, 1798–1900," Navy Ledgers vol. "S," particularly amounts charged against Gradual Increase funds by various yards, pp. 32, 34, 35, 44, 47, 57–58, 75, 91, 118, 120, 124, 172, 175, 185, National Archives and Records Administration. Some advocated building more sail-only sloops similar to *Constellation*, see letter to editor *The Monthly Nautical Magazine and Quarterly Review* 1 (Oct 1854 to Mar 1855): 396–397. On reusing the name, see J.F. Ayers Memorandum for OP-29B and OP-29, 28 Dec 1953 with attachments, ships history file "Constellation," Ships History Branch, Naval Historical Center (hereafter this file, branch and source will be cited as "NHC-SH").
10. Record Group 71: Records of the Bureau of Yards and Docks, entry 91, "Journal of Daily Transactions at Navy Yards," Gosport log, 3, 18, 22, 23, 25, 26, 29 Nov 1852; 4, 6 Dec 1852; 1, 19, 20, 28 Jan 1853; 22, 23 Feb 1853, National Archives and Records Administration (hereafter this record will be cited as "Gosport Log"). Drawing, "For taking the shape of ship before docking," drawn by Charles S. Bruff, undated, Record Group 45, Naval Records and Library, entry 405A, "Grice Collection," #87, National Archives and Records Administration; Robert P. Beebe, "The Art of Taking Off Lines," *Rudder* (Nov 1966): 42–47. A good view of the workings in a commercial shipyard about this time is "The Building of the Ship," *Harper's New Monthly Magazine* 24, #143 (Apr 1862): 608–620. The destruction of the old *Constellation* is specifically mentioned in E.H. Delano to Samuel L. Breese, 11 June 1853, Record Group 71: Records of the Bureau of Yards and Docks, entry 5, "Letters Received from Commandant Gosport Navy Yard, 1853–1854," Commandant, Gosport Navy Yard to Bureau of Construction and Equipment, 26 Jan 1854 entered 28 Jan 1854 in Record Group

- 19: Records of the Bureau of Ships, entry 60-A, "Minutebook of the Bureau of Construction and Equipment," NARA (hereafter this record will be cited as "Minutebook."); and also in the entry for 15 May 1853, Gosport Log. The request to auction the old timber is synopsized in Commandant, Gosport Navy Yard to Chief, Bureau of Construction and Equipment, 12 Sept. 1853, entry for 14 Sept 1853, Minutebook.
11. On Edward J. H. Delano's contributions, see W.E. Shubrick to J.C. Dobbin, 28 May 1852, Record Group 45, entry 32, "Letters from Bureaus of the Navy Department," NARA. On the ship design process at the time see John W. Griffiths, *Treatise on Marine and Naval Architecture, or Theory and Practice Blended in Ship Building* (New York: D. Appleton and Co., 1854); Isaac Watts and Frederick K. Barnes, *Shipbuilding, Theoretical and Practical* (London: William Mackenzie, 1806); Richard W. Meade, *A Treatise on Naval Architecture and Ship-Building* (Philadelphia: J.B. Lippincott & Co., 1869); Theodore D. Wilson, *An Outline of Shipbuilding, Theoretical and Practical* (New York: John Wiley & Sons, 1878); James Dodds and James Moore, *Building the Wooden Fighting Ship* (New York: Factson File, 1984). The Griffiths volume is particularly important. The Lenthall half model is in the collections of the U.S. Naval Academy Museum. A plan dated May 1853 is in Lenthall Collection, Franklin Institute; the dimensions taken from the old ship prior to and after hauling out are 107-13-4A and B; a June 1853 plan is drawing 28-3-5; the offsets are 142-1-7; and the record drawings, 128547 and 128584, are dated Nov 1855, all in Record Group 19: Records of the Bureau of Ships, entry 126, "Plans of Ships and Shore Establishments," National Archives and Records Administration (hereafter this source and entry will be cited as "RG-19, E-126, NARA"). A copy of the offsets were mailed to the Bureau in Washington on 10 Oct 1853, see entry for 12 Oct 1853 in Minutebook. Later plans were sent to Washington on 22 Mar 1854, entry for 24 Mar 1854, Minutebook. Actual letters between Gosport and the Bureau at this time have been lost but the minutebook synopsizes each incoming letter and lists dates and enclosures. On building the *Franklin* in 1854 as a substitute ship, see Donald L. Canney, *The Old Steam Navy 1* (Annapolis: Naval Institute, 1990): 46. On designing and building the *Merrimack* class in 1853-54 using the timber stockpile, see Canney, *The Old Steam Navy 1*: 45-46; Benjamin Isherwood, *Experimental Researches in Steam Engineering 1* (Philadelphia: William Hamilton, 1863): 157; J.C. Dobbin to Lenthall, 10 Jun 1854, "Letters Sent by the Secretary of the Navy to Chiefs of Bureaus, 1842-1886," microcopy M-480, NARA. The design process is discussed in greater detail in Appendix A.
 12. Gosport Log, 25 June 1853, 27 Aug 1853, 6 Sept. 1853; "Plan of Navy Yard at Gosport, VA," Jan 1843, Record Group 71: Records of the Bureau of Yards and Docks, entry 71, "Plans, 1876-1941" drawing 55-3-15 and "Plan of Part of Gosport Navy Yard showing Proposed in change in Quay Wall Location & method of Construction," June 25, 1853 (Y&D No. 3987), Public Affairs Office, Norfolk Naval Shipyard, Portsmouth, VA; (Norfolk) *Southern Argus*, 11 July 1853; the keel pieces are documented in Record Group 19: Records of the Bureau of Ships, entry 320: "Returns of Stores at Navy Yards and Naval Stations," Gosport Store Returns, Volumes for 1853-1854, Aug, Sept, Oct, Nov 1853;

Mar, Apr, May 1854, NARA; 25, 26, 27 May 1853, Gosport Log. Evidently much material was lost converting bulky ship-of-the-line timbers to smaller-dimensioned sloop requirements.

13. On the storage and retrieval of plank stock, see Bearss, *Charlestown Navy Yard* 1: 427. Approximately 400 separate entries for the *Constellation* appear for materials withdrawn from the Gosport stores between 1853 and 1855. We entered them into a computer for ease in reorganizing. An excellent photographic account of ship framing is Dana Story, *Building the Blackfish* (Gloucester, MA, Ten Pound Island Book Co., 1988).
14. Gosport Log, 26 Aug 1854. "New sloop of war" is from the log entry of that day. Naval History Division, *Dictionary of Fighting Ships* 2: 171-172. Historian Admiral George Preble was active in the Navy in 1855 and in 1872 he wrote that the *Constellation* was "...now represented by a new ship bearing the same name." George H. Preble, *Our Flag: Origin and Progress of the Flag of the United States of America* (Albany, N.Y.: Joel Munsell, 1872), p. 232.
15. "Resplendent" is from Naval History Division, *Dictionary of Fighting Ships* 2: 171. F.D. Roosevelt to Bureau of Navigation, 13 June 1913; Bureau of Navigation to Department, 4 Sept. 1913, NHC-SH; U.S. Congress, House of Representatives, *Hearings before Committee on Naval Affairs of the House of Representatives on Estimates Submitted by the Secretary of the Navy 1914* (Washington, DC: GPO, 1914): 943, 804-806. Roosevelt may have been inspired by the successful cruise of the raised *Niagara* (1812) during the commemoration of the Battle of Lake Erie in 1913. Naval History Division, *Dictionary of Fighting Ships* 5: 80-81.
16. See various reports of the Chief of the Bureau of Construction and Repair included in the *Annual Report of the Secretary of the Navy*. Unattributed research report "USS CONSTELLATION," undated NHC-SH. 63d Cong., 2d sess., *Congressional Record*, pp. 7626, 7633, 2 May 1914. Though speculation, it is possible that the Navy sought to make the *Constellation* appear older than she was in order to better justify her retirement.
17. F.D. Roosevelt, "Our First Frigates. Some Unpublished Facts About Their Construction,," *Transactions of the Society of Naval Architects and Marine Engineers* 22 (1914): 139-153. The quotation is on p. 153.
18. Naval History Division, *Dictionary of Fighting Ships* 2: 172; J.R. Wilson, "Historical Record of the Navy's Participation in the Sesqui-Centennial International Exposition Held in Philadelphia, PA, 1926," about 1 Dec 1926, Navy Department Library; A.E. Bibbins to Curtis Wilbur, 6 Apr 1928, Naval Historical Center, Operational Archives, "Constellation," file ZC (hereafter this source will be cited as "NHC-OA-ZC").
19. That the Navy was oblivious to the possibility that the vessel of 1935 was *not* the one built in Baltimore can be readily seen in Robert W. Neeser, "Historic Ships of the Navy: 'Constellation,'" U.S. Naval Institute *Proceedings* 61, #4 (Apr 1935, whole #386): 539-544. H.R. 1307, 74th Cong., 2d sess., p. 10817. The *Constitution* has always been relatively well cared-for by the Navy. See Martin, *A Most*

Fortunate Ship. Under terms identical to the *Constellation* the *Olympia* would be loaned to a non-profit group of citizens in Philadelphia in 1957 and would face a similar uneasy financial future. Despite its importance as an artifact, the *Hartford* ignominiously would sink at a berth in Norfolk in 1956. Naval History Division, *Dictionary of Fighting Ships* 5: 153 and 3: 263.

20. Hull Board to Bureau of Construction and Repair, 1 Apr 1941, LDP.
 Ruby R. Duval, "The Frigate *Constellation*—Oldest Vessel in Our Navy Today," U.S. Naval Institute *Proceedings* 61, #12 (Dec 1935, whole #394): 1780–1786.
21. Cushing to Editor, *Baltimore Sun*, 18 Mar 1958, LDP. Navy Department Press Release, "USS CONSTELLATION MAY BECOME PERMANENT RELIC," 5 Aug 1946, NHC-SH; *Baltimore Evening Sun*, 10 Sep 1946; W. John Kenney to Carl Vinson, 19 Aug 1946, *Hearings Before the Committee on Naval Affairs of the House of Representatives on Sundry Legislation Affecting the Naval Establishment, 1946, 79th Cong., 2d sess., pp. 3647–3648*. Ianthe Bond Hebel, "The America," *Civil War in Volusia County: A Symposium* (Daytona Beach: Halifax Historical Society, 1987): 20; *Annapolis Evening Capital*, 30 Mar 1942; U.S. Congress, House of Representatives, 80th Cong., 2d sess., Report No. 1422 and Public Law 442, approved 13 Mar 1946. The *Oregon* was a floating hulk in 1946.
22. *Washington Star*, 16 Mar 1948. Sullivan's restoration committee was comprised of 30 persons including Admirals Nimitz, Leahy, Halsey, King and the archbishop of Washington: unidentified document labelled "Table of Contents," undated, but about 1948, NHC-OA-ZC. Coletta, "John Lawrence Sullivan," in Coletta, *American Secretaries of the Navy* 2: 747–780.
23. JoAnn J. King, "Howard I. Chapelle: Maritime Scholar. A Study of His Contribution to Maritime Preservation," Ph.D. dissertation, American Studies Department, George Washington University, Washington, DC, 1983, appendix D, "Howard I. Chapelle"; Peter H. Spectre, "Howard I. Chapelle," *Naval History* 4, #1 (Winter, 1990): 59–61. Howard I. Chapelle, *The Baltimore Clipper: Its Origin and Development* (N.p.: Marine Research Society, 1930). For the contrasting style of maritime history at the time see, for example, Navy Department, Office of Naval Records and Library, *Naval Documents Related to the Quasi-War Between the United States and France*, 7 vols., 1935–38 and *Naval Documents Related to the United States Wars with the Barbary Powers*, 7 vols., 1939–45 (Washington, DC: GPO). For a contemporary parallel style, see Cedric Ridgely-Nevitt, "Henry Eckford's *United States* of 1831," *The American Neptune* 8, #1 (Jan 1948): 7–10. An important overview of American maritime history during the period covered by this study is John H. Kemble, "Maritime History in the Age of Albion" in Benjamin W. Labaree, ed., *The Atlantic World of Robert G. Albion* (Middletown, CT: Wesleyan University Press, 1975), pp. 3–17.
24. Biographical sketch of John B. Heffernan, 20 Nov 1956, Naval Historical Center, Operational Archives biographical files (hereafter this source will be cited as "NHC-OA"); memo, Alma R. Lawrence to Capt. B.G. Lake, 4 Apr 1951, NHC-OA-ZC. *Washington Evening Star*, 6 May 1948. On the early evolution of what

will become the Naval History Division, sec J.W. McElroy, "Office of Naval Records and Library, 1882-1946," 1 June 1946, Navy Department Library.

25. Design Superintendent to Planning Officer, 1 July 1948; Navy press release, "CITIZEN GROUP BEING INVITED TO ASSIST IN RAISING FUNDS FOR RESTORING USS CONSTELLATION," 16 Mar 1948, both NHC-SH; *New Bedford (MA) Standard-Times*, 29 Jan 1949.
26. Chief, Bureau of Ships to Commander, Boston Naval Shipyard, 16 Apr 1948, NHC-OA-ZC; Louis H. Bolander, Memo for Commander C.B. Burke, undated but about Apr 1948, NHC-SH; biographical sketch of Wesley M. Hague, 9 Aug 1956, NHC-OA; memo, Hague to Commandant First Naval District, 23 Aug 1948, Leonard F. Cushing Papers, Naval Historical Foundation, Library of Congress (hereafter this collection and source will be cited as "LFC-LC"): *The American Neptune* 7, #4 (Oct 1947): 253-254. Chapelle was one of the editors of *Neptune* at this time. See JoAnn King, "Howard I. Chapelle," pp. 160-164, Ernest S. Dodge, ed. *Thirty Years of "The American Neptune."* Cambridge, MA: Harvard University Press, 1974), p. VII. Confirming confusion, the Navy may have had trouble dry docking the ship in 1946 erroneously using the 1795 hull lines: *Constellation Committee minutes*, 9 Dec 1964, LDP and Howard Chapelle and Leon Pollard, *The Constellation Question* (Washington: Smithsonian Institution Press, 1970), pp. 131-133 (hereafter this book will be cited as "CQ").
27. *Providence (RI) Sunday Journal*, 3 Apr 1949; Howard I. Chapelle, *The History of the American Sailing Navy* (New York: W.W. Norton, 1949); another spin-off probably was Howard Chapelle, "The Design of the American Frigates of the Revolution and Joshua Humphreys," *The American Neptune* 9, #3 (July 1949): 161-168. Hague to Admiral Deyo, 12 Apr 1949; Homer Wallin to Hague, 20 Apr 1949 and Hague to Wallin, 21 Apr 1949, all in NHC-SH. Chapelle later revealed that he had written a "lengthy correspondence in the *Baltimore Sun* in 1946-47." We understood this to mean in either 1946 or 1947 he wrote a lengthy letter to the editor published in the *Baltimore Sun* or more likely, the *Baltimore Evening Sun*. See CQ, p. 4.
28. *Providence (RI) Sunday Journal*, 3 Apr 1949. Chapelle frequently referred to the process of "administrative rebuilding." The dates 1794, 1795, 1796, 1797, 1853, 1854 and 1855 are used by the authors of this report in the specific sense. That is, certain shipbuilding events occurred in each year to which the text specifically refers. The different years are used with cognizant discrimination.
29. Chapelle, *History of the American Sailing Navy*: pp. 466-469; U.S. Naval Institute *Proceedings* 76, #6 (June, 1950): 678-679; 76, #10 (Oct 1950): 1141; 77, #4 (Apr 1951): 425-426. "Report of Material Inspection of USS Constellation (IX-20) Held 25 September 1953 by Sub-Board of Inspection and Survey," NHC-SH. Commander, Boston Naval Shipyard to Chief of the Bureau of Ships, 21 Sept. 1951; Commandant, First Naval District to Chief of Naval Operations, 26 Sept. 1951, NHC-SH. For the universal impact of *Sailing Navy*, see *Norfolk Virginian-Pilot*, 3 Mar 1954.

30. Leonard Cushing biographical information is from "Elliot Snow/Leonard F. Cushing: A Register of Their Papers in the Library of Congress." (1966) LFC-LC. Ralph J. Robinson, "Constellation Seems DOOMED!," *Baltimore magazine* (June 1953): 17, 64.
31. On prior interest, see James E. Hancock to G.L. Radcliffe, 24 Feb 1938, 75th Cong., 3d sess., *Congressional Record*, p. 2572 and Edward S. King to Radcliffe, 8 Aug 1942, 77th Cong., 2d sess., *Congressional Record*, pp. 3116-3117. *Baltimore Evening Sun*, 10 Sept 1946; 5, 26 Oct 1946; 18 Jan 1947. Biographical information on Donald Franklin Stewart is from *The (Baltimore) Sun Magazine*, 16 June 1974: 5, 7, 9 and *The (Washington, DC) Sunday Star Magazine*, 28 July 1957, p. 11. Ralph J. Robinson to James W. Foster, 22 June 1953, Constellation file, Library, Maryland Historical Society, Baltimore, MD (hereafter this source and file will be cited as "MHS"). Cushing's official Navy correspondence appears to be lost but an idea of the nearly daily exchanges between Cushing and Stewart, the Baltimore Association of Commerce, and the Maryland Historical Society can be gained in "Summary of Correspondence Forwarding Information Concerning the U.S.S. Constellation to Baltimore and Washington, DC." 18 May 1953 -31 Dec 1956 in LFC-LC.
32. *Boston Naval Shipyard News*, 28 July 1953; *Boston Post*, 31 July 1953; John M. Butler to Robert B. Anderson, 7 Dec 1953, NHC-SH; Chief, Bureau of Ships to Judge Advocate General (Legislative Division), 9 Dec 1953, LFC-LC; McElroy, "Office of Naval Records and Library, 1882-1946," Navy Department Library; "Fact Sheet Relative to the Status of USF Constellation Restoration," undated and appended to Chief of Naval Operations to Commandants of Naval Districts and Commanders of Naval Shipyards, 5 Jan 1954, NHC-SH. The CNO memo of 5 Jan 1954 is reprinted in *CQ*, pp. 46-48. Unattributed newspaper clipping of Associated Press article "Marylanders Unite to Prevent Scrapping of 'Constellation'," 22 Jan 1954, NHC-SH; Donald Stewart to James W. Foster, 28 Jan 1954, MHS. 79th Cong., 2d sess., Public Law 649, approved 7 Aug 1946 already permitted the Secretary of the Navy to donate surplus and relics to certain non-profit groups providing it was at no cost to the Navy. Naval History Division, *Dictionary of Fighting Ships* 5: 168.
33. Biographical information on Bernard E. Manseau is in "Vice Admiral Bernard E. Manseau, United States Navy, Retired," 10 Sept. 1957, NHC-OA; transcript of testimony, "Name of Principal Witness: Rear Admiral B.E. Manseau, USN, Deputy and Asst. Chief of Bureau of Ships," undated but 2 Mar 1954, NHC-SH; *New York Herald Tribune*, 2 Mar 1954; Memorandum for Director, Fleet Maintenance Division, Office of Chief of Naval Operations, 4 Mar 1954, NHC-SH.
34. Naval Speedletter, Chief of Naval Operations to Commander, Boston Naval Shipyard, 9 Mar 1954, LFC-LC; Commander, Boston Naval Shipyard to Chief of Naval Operations, 18 Mar 1954, NHC-SH; Commander, Norfolk Naval Shipyard to Chief of Naval Operations, undated but about 28 Apr 1954, Marshall W. Butt Library, Portsmouth Naval Shipyard Museum, Portsmouth, VA (hereafter this source will be cited as "PNSYM"); Commander, Norfolk Naval Shipyard to Chief of Naval Operations, 12 Mar 1954, NHC-SH; U.S. Congress, House of

Representatives, 83d Cong., 2d sess., H.R. 8247, introduced 5 Mar 1954 and Report 1367, 18 Mar 1954. K. Jack Bauer, "Robert Bernerd Anderson" in Coletta, *Secretaries of the Navy* 2: 843-855. The Anderson memo is quoted in Chief of Naval Operations to Commander, Boston Naval Shipyard, 19 Apr 1954, LFC-LC; John B. Heffernan to James W. Foster, 24 May 1954, PNSYM and MHS; *Baltimore American*, 7 Mar 1954; *Boston Globe*, 7 and 12 Mar 1954; *Boston Post*, 7 and 12 Mar 1954. Howard Chapelle, "Constellation: The Fraudulent Frigate," *Nautical Research Journal* 6, #4 (Apr 1954): 56-57. The duties of a Special Agent for the Baltimore Association of Commerce could not be learned.

35. Heffernan to Foster, 11 June 1954; quotation is in Brewington to Foster, 20 June 1954, both MHS. A document identifiable as R.F. Good's report has not been located.
36. Biographical information on Marion Brewington (1902-1974) is from *Who's Who in American Women, 1972* (New York: Marquis Co., 1972): 95. He was incorrectly included in the women's volume. McElroy, "Office of Naval Records and Library," Navy Department Library. M.V. Brewington, *Chesapeake Bay: A Pictorial and Maritime History* 2nd ed., (Cambridge, MD: Cornell Maritime Press, 1956): dust jacket. A founding editor of *The American Neptune* along with Chapelle, Brewington would later become a member of the Secretary of the Navy's Historical Advisory Committee see: E.M. Eller, "Naval History Division Documentary Publications," in Robin Higham, ed., *Official Histories* (Manhattan, KS: Kansas State University Library, 1970) p. 531. Brewington to Robinson, 21 May 1954; Robinson to Pouder, 25 May 1954, MHS.
37. Director to Alfred W. Barry, Jr., 26 June 1954; Robinson to Foster, 4 May 1954; "Committee on the Constellation Appointed by President Radcliffe of the Maryland Historical Society," undated, all from MHS.
38. R.F. Good's first name could not be determined. G.H. Pouder, "Report of the Committee on U.S.S. Constellation," 12 July 1954. The report contains some quotes from Good's report. Nelson M. Blake to James W. Foster, 30 July 1954, both in MHS.
39. Fred R. Cummings to Elizabeth Bryden, 11 Oct 1954, NHC-SH; 83d Cong., 2d sess., Public Law 523 (H.R. 8247) approved 23 July 1954; Leonard F. Cushing to Robinson, 16 Oct 1954, NHC-SH; Manseau to Neil Swanson, 31 Jan 1955; Contract NOBs-3721, 22 July 1955, Constellation contract file, Office of Congressional and Public Affairs, Naval Sea Systems Command; "Bureau of Ships Daily Administrative Bulletin," 23 Aug 1954.
40. Conrad L. Wirth to D.E. Pollard, 8 Oct 1956; memo, Edward S. Zimmer to the Director, 22 Apr 1955; Staff Historian (Rogers W.) Young, "Negotiations in Boston on the Constellation," 22 Apr 1955; memo, Staff Historian to Director, 29 Apr 1955; memo, Conrad L. Wirth to Regional Director, Region One, 17 May 1955; Staff Historian Young and Architect (Charles W.) Lessig to Kahler, Vint, and R.F. Lee, 18 May 1955; Herbert E. Kahler to R.F. Lee, 29 Mar 1956; memo, Acting Chief, Division of Interpretation to Regional Director, Region Five,

12 Apr 1956, all from Constellation file, National Historic Landmarks office, National Park Service, Department of the Interior, Washington, DC (hereafter this source and file will be cited as "NHL"). Cushing to Charles Scarlett, 14 Jan 1958, LDP. Charles W. Porter III, "Report on a European Trip, June 14-July 16, 1956," Record Group 79: Records of the National Park Service, Office of the Director, Office Files of Conrad L. Wirth, 1946-64, box 9, NARA.

41. *Baltimore Sun*, 8 Aug 1960; Star Spangled Banner Flag House Association, Minutes, Constellation Commission and Industrial Committee Joint Meeting, 15 Jan 1957, NHC-SH; 85th Cong., 1st sess., S1231, introduced 14 Feb 1957; James P. Devereux to Leonard L. Greif, Jr., 26 Feb 1957, LDP; *Baltimore News-Post*, 8 Mar 1958; Fred C. Shapiro to Marshall W. Butt, 12 Mar 1958; Butt to Graham, 14 Mar 1958, PNSYM; *Baltimore Sun*, 31 Aug 1956, 7 Mar 1957, 12 Apr 1957, 27 Feb 1958, 16 Mar 1958; Assistant Secretary of the Interior to James E. Murray, 7 Aug 1957, LDP. A financier and surgeon, Dr. R. Walter Graham was elected comptroller in 1955 and again in 1959. He was defeated in a bid for mayoral nomination in 1963. A member of the Maryland Historical Society, he died on 10 Feb 1987, *Baltimore Sun*, 11 Feb 1987.
42. Cushing to Scarlett, 11 July 1957; to Burton M. Parks, 22 Aug 1957; to Radcliffe, 21 Sept. 1957; to Scarlett, 26 July and 17 Oct 1957, 10 Nov 1957; to Helen (Jenkins), 12 Feb 1958; Scarlett to Friedel, 12 Feb 1958 all in LDP. The Scarlett quote is in Scarlett to Cushing, 26 Aug 1957 and the Cushing quote is in Cushing to Scarlett, 14 Nov 1957, both in LDP.
43. A.B.C. Whipple, "The Hard-Luck Frigate," *American Heritage* 7, #2 (Feb 1956): 16-19, 102-103; A.G. Mumma to Donald Stewart, 13 Mar 1958, Constellation contract file, Office of Congressional and Public Affairs, Naval Sea Systems Command. Biographical information on Ernest McNeill Eller is from "Rear Admiral Ernest M. Eller, United States Navy, Retired," 5 Oct 1970, NHC-OA; *Baltimore Sun*, 15 Mar 1958; Ernest M. Eller, "Truxtun-The Builder," U.S. Naval Institute *Proceedings* 63, # 10, (Oct 1937, whole #416): 1445-1452; *New York Times*, 25 May 1958; biographical information on Marshall Wingfield Butt is from "Biographical Information, 25 Sept. 1974," PNSYM; *Baltimore News-Post*, 15 Mar 1958; *Baltimore Evening Sun*, 8 Mar 1958; Commander Edward L. Beach, "Notes on Constellation I and II," undated, NHC-SH; unattributed Associated Press newspaper article titled "Captain Questions Constellation Origin," 8 Mar 1958, folder 815, John Lyman Papers, National Maritime Museum, San Francisco, CA (hereafter this source will be cited as "JLP"). Capt. Beach has since reversed his opinion. See Beach *United States Navy*, p. 233. Helen Jenkins to Eller, 15 Mar 1958, LDP. Graham had personally visited the National Archives and done some research. It is also interesting to note that Mr. Jean Hofmeister, Baltimore Harbormaster, was both a staunch Committee member and an employee of Graham.
44. *Baltimore Sun*, 7 Mar 1958; Western Union telegram, Helen Delich to Dr. John Lyman, undated, folder 815, JLP. Lyman was in San Diego on 16 Mar 1958 and in 1975 could not recall why he was invited to appear: Lyman to Graham, 2 Oct 1975, folder 815, JLP. Probably he was invited because of an

impressive letter he recently had sent Graham about a new *Constellation* of 1853. His view was based on the Gosport shipyard store returns which he investigated at the National Archives, Lyman to Graham, 8 Mar 1958, folder 815, JLP. Western Union telegram, Helen Delich to Cushing, undated, LFC-LC; "Statement of Leonard Cushing, Panel discussion of authenticity of *Constellation*, Baltimore, Maryland - March 16, 1958," LDP. The 1852 date is in the statement and is incorrect. Graham later recalled that Stewart appeared before the cameras that day wearing a modern merchant marine captain's uniform: Graham to Lyman, 24 Sep 1975, folder 815, JLP. Responsible for Baltimore Harbor, Graham was at a loss to recall how Stewart qualified to wear such an outfit. In 1973 Stewart apparently applied for a Panamanian merchant marine license for operating motor vessels up to 3000 tons and said that his previous "commands" had been aboard "public service ships." Stewart to Thomas M. Taylor, 5 June 1973 published in an undated advertising brochure printed by the International Maritime Research Company, in LDP.

45. Cushing to Mr. Alder, 13 Apr 1958, LFC-LC. An example of the Committee's belief that Chapelle was their only nemesis is H. Alexander Smith, Jr. to Scarlett, 8 Apr 1958 with attached draft letter, LDP. A valiant attempt to unsort the controversy is in *Baltimore Evening Sun*, 31 Mar and 1 Apr 1958; *Baltimore Sun*, 22 Mar 1958.
46. Cushing to Constellation Committee, 18 Mar 1958, LDP.
47. JoAnn King, "Howard Chapelle," p. 100; Cushing to Chapelle, 22 Mar 1958, Record Unit 239, National Museum of American History, Division of Transportation records, circa 1927-1973, Smithsonian Institution Archives (hereafter this source and record unit will be cited as "RU-239, SIA"). Chapelle to Cushing, 1 Apr 1958, LDP.
48. Cushing to Chapelle, 16 Apr 1958; Chapelle to Cushing, 2 Apr 1958, 21 Apr 1958, 14 May 1958; Cushing to Chapelle, 10 May 1958 (misdated "1957") in RU-239, SIA.
49. On April 8, 1958 Chapelle had an extensive meeting with some Committee members at his office but in his correspondence, Chapelle had nothing specific to say about it: Chapelle to Cushing, 9 Apr 1958, LDP. A good indicator of Cushing's aggressiveness is Cushing to Chapelle, 27 Apr 1958; Chapelle to Cushing, 1 May 1958, RU-239, SIA. Scarlett to Gates, 9 Apr 1958, LDP; *Baltimore Sun*, 17 Apr 1958.
50. A.G. Mumma to Scarlett, 5 May 1958, NHC-SH; Cushing to Chapelle, 6 June 1958 and 29 Aug 1959; Chapelle to Cushing, 12 June 1958, RU-239, SIA; Cushing to Scarlett, 24 Jan, 2 Feb, 8 Mar, 14 Mar and 12 May 1958; Cushing to Chapelle, 6 Apr 1958; Chapelle to Cushing, 9 Apr 1958; H. Alexander Smith to Cushing, 24 Mar 1958; Polland to Mrs. Leonard Cushing, 26 Mar 1962, LDP; C.F. Elliot to Donald Stewart, 9 Sep 1957, NHC-SH; Cushing to Chapelle, 6 Apr 1958; Scarlett to Cushing 21 Jan 1958, LDP.

51. On the early collection of documents, see "Inventory of Constellation Research Documents," 3 Dec 1965, LDP. Stewart's claim is in Stewart to Secretary of the Interior, 16 Jan 1957, NHL. Stewart's discovery of the 1913 memo is recorded on route slip from BuShips Code 110 to Code 100, dated 16 Apr 1958, Constellation contract file, Office of Congressional and Public Affairs, Naval Sea Systems Command, Stewart to Eller with copy of memo, 17 Apr 1958, NHC-SH. That Stewart was researching at the National Archives between 3 and 12 April 1958 is confirmed by: Donald Stewart, "Archives of the United States...Subject, Material issued to 'Constellation'...Copied April 3 thru April 12, 1958," LDP. The memo is F.D. Roosevelt to Director of the Bureau of Construction and Repair, 31 July 1913, Record Group 19: Records of the Bureau of Ships, entry 92, "Correspondence Regarding Ships," (E Flat file), 1912-1915, NARA. Chapelle's 27 Apr comments are handwritten on the bottom of his copy of the memo, box 40, RU-239, SIA. Chapelle's comments to Cushing are in Chapelle to Cushing, 1 May 1958, 14 May 1958, RU-239, SIA. *Baltimore Evening Sun*, 2 May 1958; *New York Sunday Times*, 22 Jan 1961; Eller to Stewart, 23 Apr 1958, NHC-SH. Admiral Eller reprinted part of the memo in a letter to the editor, *Time Magazine* (27 Jan 1961): 2.
52. Graham to Robert W. Wienpohl, undated but about Aug 1962, LDP; memo, Lopresti to Secretary of the Navy, 28 May 1959; Lopresti to Thomas C. Hart, 28 Apr 1960; "Jim" (Lopresti) to "Bob" (Michel), 26 Dec 1963, Vincenzo J. Lopresti Papers, Curator of Ship Models, David Taylor Research Center, Bethesda, MD. Hanly to Daniel Smith, 24 Jan 1962, NHC-SH; SECNAV NOTICE 4780, 10 Jan 1962; unsent thank you letter to Chief Malin, undated but about Jan 1962; Eller to Robert Michel, 30 Apr 1962, NHC-SH; "Biography of Lt. Commander Vincenzo Lopresti, U.S. Navy," undated, LDP; *Baltimore Sun*, 2 July 1961.
53. Leon David Polland biographical information is from *Who's Who in the East*, twelfth edition (Chicago: Marquis-Who's Who, 1972), p. 888 and Polland to Arnold Korab, 22 Jan 1965, LDP. In later years Polland received a very small salary for his part-time duties. Throughout various documents about the *Constellation* 1955-75 there was much imprecision about various committee names. The Star Spangled Banner Flag House Association was the umbrella group holding title to the ship and operation of the ship was delegated to its "Constellation Committee" or "Constellation Restoration Committee." Within the Constellation Committee were several subcommittees which they also termed "committees." One of these subcommittees was organized to oversee the maintenance and restoration of the ship and was known over time by a variety of names. All references to "the Committee" in this work are to the larger Constellation Committee, 1955-1975.
54. Polland kept many 3-ring binders filled with his chronological "construction notes." It is believed that in addition to being a record, the notes were probably compiled anticipating eventual publication and were perhaps submitted for periodic review to interested Committee members. Construction note, 20 June 1959, LDP. Leon D. Polland, *The Frigate "Constellation": An Outline of the Present Restoration*, 2nd ed. (N.p.) 19 June 1968, pp. 2-4 (hereafter this book will be

cited as "SNAME"). The first edition of this soft-cover post-binder book, dated 7 May 1966 does not contain as extensive introductory or appendix materials as the second. However, the main text pages are basically the same with identical pagination. The second edition seems to be more commonly available and we therefore have chosen to reference that edition. There is some additional confusion because sometimes Polland considered the first (1966) edition of SNAME to be the "second" edition of his mimeographed book *Frigate E - Constellation* (N.p. 1962) (see pp. 59-60). Construction note, 20 Aug 1959, LDP. Polland to "To whom it may concern" on USS *Constitution*, 18 Oct 1959; Polland to Michael King, 14 Nov 1959; to Edward L. Cochrane, 4 Nov 1961 (Cochrane was deceased); to Harvey J. Evans, 12 Dec 1962; Evers Burtner to Polland, 14 Nov 1961, 5 Jan and 18 Dec 1962; Polland to Howard H. Fawcett, Jr., 4 Nov 1961; Fawcett to Polland, 13 Nov 1961, all in LDP. Polland to Evers Burtner, 26 Dec 1961; 13 Feb 1962; 12 Dec 1962 all from the Hart Nautical Museum Archives, Massachusetts Institute of Technology. Joseph C. Bruzek to Polland, 17 Nov 1964, LDP. Polland's inexperience with wooden ships is admitted in the 18 Oct 1959 letter above, and his deficient background in history is from Polland draft, "A *Constellation* Treatise," Mar 1969, LDP, and Leon Polland, *Frigate E - Constellation*, p. 2. His "severe handicap" is expressed in *Frigate E*, p. 1.

55. Construction notes, 4 and 12 Dec 1959; 7 May 1960, LDP. Stewart's visit to the Franklin Roosevelt Library in 1959 is established in Raymond Teichman to author, 10 Jan 1990, Constellation Files, Curator of Ship Models, David Taylor Research Center (hereafter this source and these files will be cited as "DTRC"). A copy of the Roosevelt annotated drawing has not been located in the Polland papers, but it is reproduced on p. 91 of *CQ*.
56. Construction notes, 7 and 19 May 1960; 1 June 1960; 20 July 1960, LDP.
57. Construction note, 19 May 1960; Wallace Emerick to "To Whom it May Concern," 19 May 1960; "U.S.F. 'Constellation' - Star - bd - Hull, Timber, Hull & Spike Research - 1960" 16 May 1961 (1960), frames 21 & S-21, the researcher's initials have been deliberately erased but they appear to have been "DS": probably for "Donald Stewart," LDP. *New York Herald Tribune*, 24 Oct 1960.
58. Construction note, 9 Aug 1960; Polland to Edwin H. Auerbach, Jr., 19 Dec 1968, LDP.
59. R. Hammond Gibson to Chapelle, 24 Mar 1961, MHC. Stewart's visit to the Newport Naval Training Station is established in A. Nicolosi, memo to file, 6 Nov 1979, research files, Naval War College Museum, Newport, RI. Polland to Mr. Selstedt, 9 Jan 1961, LDP. Charles Scarlett, Jr. is praised for his superb restoration of his home, Whitehall (1764), outside Annapolis, MD in *Antiques in Annapolis* (Annapolis: Historic Annapolis, Inc, N.d.), p. 181 reprinted from *The Magazine Antiques* (Jan 1977). "Yankee Race Horse": 15-38.

60. *CQ*, p. 17; "Yankee Race Horse": 17. Only "a portion" of the Theodore Roosevelt Collection is listed in "List of documents stored with museum relics - Barracks 'B' - U.S. Naval Training Station - U.S. Naval War College - Newport, RI — TJW—Chf.Clk.." undated, NHC—SH.
61. Construction note, 20 Apr 1961; R. Hammond Gibson to Chapelle, 1 Apr 1961, MHC. "Yankee Race Horse," 20–23, 27–31. The 30 Apr 1795 letter is footnote #21, p. 22 of "Yankee Race Horse," and is reproduced in *CQ*, p. 115.
62. "Yankee Race Horse": 31.
63. "Yankee Race Horse," 17, 17–18. The F.D. Roosevelt to Magoun letter with "Delano diary" attachment is in Record Group 45. Naval Records and Library Collection, entry 464, "Subject File, U.S. Navy 1771–1910," AR: Repairs to U.S. Ships, box 2, NARA. The name was misspelled "Magouse." Finding the letter is noted at the bottom of a copy in NHC—SH.
64. *Baltimore Sun*, 29 Mar 1961; "Yankee Race Horse," 21 and 24, footnote 25; Chapelle to Frank P.L. Somerville, 3 Apr 1961, LDP.
65. Pollard, "Report to the Committee," 21 May 1961, LDP.
66. Chapelle to Victor Jorgensen, 20 July 1961 with rough draft attachment, "Notes on Constellation Controversy (sic) and Remarks on 'Yankee Race Horse' in Maryland Historical Magazine 56, No. 1, pp. 15–38," dated 12 June 1961, LDP. The impressing effects of the heavy ballast of footnotes is demonstrated in R. Hammond Gibson to Chapelle, 24 Mar 1961, MHS.
67. Undated, untitled report by Robert Michel about Fort McHenry berth; *Constellation* Committee minutes, 24 Apr, 25 July, 27 Nov 1962, LDP. The Committee meeting minutes are not as revealing as might be hoped. Helen Jenkins, long-time secretary of the Committee revealed that she purposefully deleted all references to internal friction or controversy from her minutes because "Readers just aren't interested in this," undated handwritten note, LDP. *Constellation Yardarm I*, #3 (winter–early spring):1, LDP.
68. Scarlett to Ronald F. Lee, 16 Mar 1962; *Constellation* Committee minutes, 26 June, 30 Oct 1962, 30 Apr 1963; Udall to Korth, 19 Dec 1962; Eller to Scarlett, 21 Dec 1962, all in NHC—SH. Paul R. Schratz, "Fred Korth," in Coletta, *Secretaries of the Navy 2*: 925–939.
69. "Kent Any Ideas on historical minded Naval Constructors? Judge (Adm. Eller's nickname)," undated; memo, Chief of Naval Operations to Secretary, Ser 3P09B9, undated; Korth to Udall, 19 Jan 1963, NHC—SH. That Admiral Eller drafted the reply is encoded on bottom of file copy of the letter. *Baltimore Evening Sun*, 24 May 1963; *Constellation* Committee minutes, 28 May 1963, LDP.
70. *Baltimore Evening Sun*, 15 Feb, 24 May 1963; *Constellation* Committee minutes, 28 May 1963, LDP. There is evidence that the Committee may have had assistance in gaining landmark status from Under Secretary of the Navy,

Paul B. Fay, Jr. who was a former shipmate of President Kennedy and Admiral John Hanly of the Committee. Regarding the historic landmark status. Fay wrote in March 1963 that the next month the Interior Department's subcommittee would designate the ship a landmark, "...if they don't they will all be fired." See "Red" (Paul B. Fay, Jr.) to "John" (John H. Hanly) ? Mar 1963, NHC-SH.

71. On misleading statements, see p. 71; *CQ*, p. 106; SNAME, p. III and untitled, undated report by Robert Michel about the Fort McHenry berth in LDP. Historical report, "U.S. Frigate Constellation," no author, no date, NHL. "Yankee Race Horse" material was used as documentation by the National Historic Landmark office as recent as 1975. See "National Register of Historic Places Inventory - Nomination Form." prepared by Joseph Scott Mendinghall. Historian, 24 Feb 1975, NHL; *The New York Times*, 13 Dec 1964. The meeting with Chapelle has not been confirmed by documentation. Polland's belief that the Smithsonian was part of the Department of the Interior is in Leon Polland, handwritten, unnamed speech script, 4 July 1968, LDP. For several years he also incorrectly believed Admiral Eller and the Naval History Division was part of the Bureau of Ships. SNAME, p. 4.
72. Polland's gruelling schedule is in Polland to Horace Rackeman, 3 Dec 1961, LDP. Stewart's employment is in Scarlett to Cushing, 2 Mar 1957, LFC-LC.
73. *Annapolis Evening Capital*, 14 June 1961; *Baltimore Sun*, 2 July 1961. Feuding is in construction note, 5 June 1961; "Constellation Restoration Committee" submitted by Leon Polland, 18 July 1961; memorandum, Dick Graham to "Leon," 28 Oct 1961; Polland to Graham, 15 Nov 1961; John A. Pentz to Polland, 30 Mar 1961; John (Pentz?) to Leon (Polland), 21 Apr 1962; work notes, 7 Mar 1964, 10 and 14 Apr 1964, all from LDP. Polland's plans for restoring the ship are succinctly described in Polland to Harold Polyblank, 19 Apr 1965, LDP. Polland's "gallery of amateurs" is from Polland, *Frigate E*, p. 6.
74. Mr. Jean Hofmeister was the Baltimore harbor master. *Baltimore Sun*, 31 Dec 1955, 30 June 1957, 8 Sep 1957; Joann Sipple, "The Haunting of the U.S.F. Constellation," *The Retired Officer* 29, #10 (Oct 1973): 22-27; Evan Randolph, "The Spirit of Commodore Truxtun," *Yankee Magazine* 41 (June 1977): 80-85, 132-133, 137; Hans Holzer, *Window to the Past: Exploring History Through ESP* (Garden City, N.Y.: Doubleday & Co., 1969), pp. 153-172. Sybil Leek, *Diary of a Witch* (New York: New American Library, 1968), pp. 155-167. For a more reliable version of Harvey's execution, see Eugene S. Ferguson, *Truxtun of the Constellation* (Baltimore: Johns Hopkins Press, 1956), p. 164 confirmed by J. Fennimore Cooper, *Naval History of the United States of America* (Philadelphia: Thomas Cowperthwait Co., 1847) p. 132. The murder of the boy was not confirmed as there are no *Constellation* log books between 8 Aug 1822 and 6 Oct 1824.
75. The pencil draft of *Frigate E - Constellation* is in LDP. Copies of this early work appear to be rare and can be confused with the somewhat more formally published 1966 and 1968 editions of Polland's SNAME paper. Polland, form letter to Gentlemen dated 18 Feb 1963 with six publisher addresses;

- William R. Minrath to Polland, 27 Feb 1963; "Distribution of Manuscripts – 'Frigate E – Constellation'," Mar 1963 – 15 Aug 1963; Construction note, 30 Apr 1963; Polland to John Hanly, 6 May 1963; memorandum, Polland to Eller, 4 Sept 1964; *Constellation* Committee minutes, 27 Oct 1964; all LDP.
76. Memo, Polland to Kenneth A. Meyers, 5 Apr 1965; memo, Polland to Eller, 22 Mar 1966; Theodore J. Chwirut to James L. Henkel, 1 Apr 1966; Polland to Henkel, 7 Apr 1966; Eller to "Lee" (Leon Polland), 23 Mar 1966; note, Polland to Eller with attachments, 16 Jan 1963; to Edward C. Fisher, Jr., 29 Apr 1969, all in LDP. Advertising page, *Warship International* 6, #3 (summer, 1969): 221.
 77. Official Schedule for Chesapeake Section, Society of Naval Architects and Marine Engineers meeting and untitled brochure; Eller to "Leon," 5 May 1966; Howard H. Fawcett, Jr. to Polland, 28 Apr 1966; Polland to Baker, 22 Mar 1966; Baker to Polland, 21 Apr 1966, LDP. Excellent background on William A. Baker (1911–1981) is Erik A.R. Ronnberg, Jr., *William Avery Baker*, (N.p.: Stinehour Press, 1982). Eller, Fawcett, and Baker written comments on Polland's paper were provided by the Society of Naval Architects and Marine Engineers headquarters. Chappelle to "Bill" (Baker), 11 May 1966, box 4, RU-239, SIA; SNAME, p. 000; Polland to Franklin D. Roosevelt, Jr., 31 Mar 1966, LDP. On Polland's confidence, see draft letter, Polland to Mr. Knight, undated but about 1975; Polland to Admiral Van Keuran, 5 Aug 1966, LDP.
 78. SNAME, pp. 002, 005–010, II–III.
 79. SNAME, p. 010.
 80. SNAME, pp. 18, 21, 31–41. The Capps Report was utilized as a footnote source in "Yankee Race Horse" and by 1966 it had become a major resource for restoration plans.
 81. Memo R.E. McClure to OP-09B9, 3 Apr 1961, NHC-SH; memo, OP-29 to All Sections, 17 Mar 1958, NHC-OA-ZC.
 82. Eller to Curator, Franklin D. Roosevelt Library, 24 Apr 1958; Edgar B. Nixon to Eller, undated but the reply to above letter; F. Kent Loomis to Herman Kahn, 31 Jan 1961; Kahn to Loomis, 15 Feb 1961, all in NHC-SH.
 83. Memo, Eller to OP-09B92ER, 25 Aug 1959; memo, F.E. Sharswood to OP-09B9, 8 Sep 1959, NHC-SH; "Yankee Race Horse," p. 28, footnote 34.
 84. Memo, OP-09B9 to OP-09B91SH, 2 Sep 1960; memo, 09B91SH to 09B91R and others, 14 Sep 1960, NHC-OA-ZC; memo, OP-09B92ER to OP-09B9, 10 Nov 1960, NHC-SH; "Yankee Race Horse": 17–18, introductory footnote.
 85. Memo, F.E. Sharswood to OP-09B9, 14 Sep 1960, NHC-SH; R. McClure, Memorandum: For the record, 8 Aug 1960; memo, R. McClure to OP-09B9, "Collection of CONSTELLATION Documents; Status of," undated, all from NHC-SH; "Yankee Race Horse": 30, footnote 38.

86. The Magoun letter without Delano diary extract attachment is reproduced in SNAME, p. 102 but the diary is transcribed separately on p. 98, giving the impression that the diary itself existed separately. Eller to Carl F. Espe, 2 Feb 1961; Espe to "Judge," 1 Mar 1961; Magoun to Espe, 27 Feb 1961; Eller to Magoun, 3 Mar 1961, 7 Jan 1963, 22 Jan 1963; Magoun to Eller, 11 Jan 1963; all in NHC-SH. Early on, Polland repeatedly made much from his assumption that the Delano diary was written by Benjamin F. Delano. See Polland, *Frigate E*, p. 8 and SNAME, p. 9. Inexplicably, he also calls him "John Delano" in SNAME, p. 9 and again in untitled speech notes, presented to University of Baltimore, 10 Oct 1980, LDP. In fact, the naval constructor at Gosport partially in charge of the *Constellation* was Edward H. Delano. See p. 52. Author Evan Randolph later claimed Magoun's son told him that his father never mentioned having received presidential correspondence: Evan Randolph to Robert Michel, 8 Dec 1980, *Constellation* correspondence file, Naval History Branch, Division of Military History, National Museum of American History, Smithsonian Institution (hereafter this file, collection and source will be cited as "DMH-SI").
87. Admiral Eller's assistance is acknowledged in a draft for CQ in NHC-SH; Naval History Division, *Dictionary of Fighting Ships* 2: 170-172 and 443. It is interesting to note that the same volume lists *Franklin* as two separate ships despite the statement that *Franklin* of 1854 was built "in part" of materials supposedly salvaged from the *Franklin* of 1815.
88. *Baltimore Evening Sun*, 24 Jun 1968. Admiral Eller's "flurry" is in handwritten memo, Eller to 91SH, 12 Aug 1968, NHC-SH.
89. Stick to Taylor, 27 Jun 1968; typed memo with phone log, Eller to 91SH, 12 Aug 1968; handwritten note, "Johnson" (91SH) to Eller, 13 Aug 1968; typed note, Eller to 91SH, 23 Oct 1968; handwritten scrap note, anonymous to unspecified, 7 Nov 1968, all in NHC-SH.
90. Construction note, 15 Oct 1968; Polland to Brayden, 15 Nov 1968, LDP.
91. "List of documents stored with museum relics - Barracks 'B' - U.S. Naval Training Station - U.S. Naval War College - Newport, Rhode Island - TJW-Chf.Clk.," undated, NHC-SH also LDP. One might question the value of preparing an undated inventory.
92. Typed note, Eller to 91SH, 13 Jan 1969; *Newport (RI) Mercury*, 25 Jan 1946; John F. DiNapoli to Walter B. Greenwood, 23 Dec 1968, 17 Jan 1969; Chief of Naval Operations to Commander, Naval Base, Newport, 22 Jan 1969; *Providence (RI) Sunday Journal*, 16 Feb 1969; *Newport Daily News*, 3 Feb 1969; Newport Training Station *NAVALOG*, 7 Feb 1969; Commander, Naval Base, Newport to Eller with enclosures, 13 May 1969; Eller to Clyde J. Van Arsdall, 22 May 1969; Loomis to John Davis, 22 May 1969; the quote is from John Davis to Loomis, 29 May 1969, all in NHC-SH. Additional eyewitness confirmation that nothing of historical value burned in Barracks B is Francis E. Clark to Polland, 30 Apr 1971, LDP.

93. Olsson to William Stewart, 6 Dec 1968; Elizabeth B. Drewry to Olsson, 19 Dec 1968, NHC-SH.
94. Typed note, Eller to 910, 91SH, 18 Dec 1968; Eller to Stephen T. Piley, 23 Jan 1969; John D. Cushing to Eller, 5 Feb 1969, NHC-SH. Olsson's files make up the bulk of the total NHC-SH material on the *Constellation*.
95. "Notes by Olsson on Pollard 'Constellation Question' & Chapelle" undated but about Mar 1969, NHC-SH. This roughly typed and pencil edited document is the only narrative record of Olsson's personal beliefs found. While substantially more critical of the Committee's views than Chapelle's, still Olsson believed that there were parts of the original ship employed in the 1853 construction. Olsson's belief was based on his misunderstanding of the Goss store returns, similar to Evan Randolph's mistake. See this report pp. 3-5, 81-82. Olsson's views regarding forgeries can be seen in the brief captions he wrote on various "S" document envelopes and in an envelope of papers marked "Olsson's file," NHC-SH.
96. On Eller's unchanging view, see Eller to J.C. Wylie, Jr., 28 Mar 1969, NHC-SH.
97. 89th Cong., 2d sess., H.R. 11906, 10 Jan 1966. See "Our Readers Write," letters by Robert E. Michel and H. Osbourne Michael, *Baltimore Sunday Sun*, 6 Mar 1966; *Baltimore Sun* and *Baltimore Evening Sun*, 28 Apr 1967. Rogers C.B. Morton to V. Carl Bloede, 24 Aug 1966; Harry J. McGuirk to William S. James, 29 July 1966; James to McGuirk, 4 Aug 1966; Samuel N. Friedel to Bloede, 23 Aug 1966; unidentified, undated steno pad page; Bloede to Persons Interested in Item 259, 2 Aug 1966; to Joseph P. Tydings, 1 Sep 1966; to Daniel B. Brewster, 15 Aug 1966; Chapelle to Bloede, 3 Aug 1966 all in Records of the Legislative Council of Maryland, item 259, 1966, Department of Legislative Reference, General Assembly of Maryland, Annapolis, MD.
98. "Constellation Research Projects" undated, Records of the Legislative Council of Maryland, item 259, 1966, *ibid*. The text of the two-page report refers to "this committee," and means the *Constellation* Committee.
99. *Ibid*. The "small booklet" referred to by the report is unidentified. There is no evidence that any members of Congress argued about the authenticity of the ship in 1914. See this report, p. 6. Admiral Capps resigned as Chief Constructor in 1910 and probably would not have chaired a Navy committee in 1914. Richard M. Watt and David W. Taylor were chief constructors in 1914. That BuShips extensively investigated the authenticity of the ship in both 1957 and 1958 is not supported by any documentation. In fact, Public Law 523 of 1954 would have made expenditures for such investigations illegal. However, it is likely that BuShips did inspect the ship, as the Naval Sea Systems Command does today, to make sure she was safe and structurally sound. On the erroneous claim that the National Park Service surveyed the ship for authenticity, see this report, pp. 33-34.
30-31
Five of the 24 archives mentioned are redundancies.
100. Legislative Council Resolution, 10 Aug 1966, Records of the Maryland Legislative Council, item 259, 1966. 90th Cong., 1st sess., H.R. 816, 10 Jan 1967 and H.R. 854, 10 Jan 1967.

101. An amazing example of the Committee's espionage network is Chapelle to John Miles, 5 Mar 1962, LDP. Chapelle wrote a letter to U.S. Consul General John Miles in Malta. In the letter Chapelle detailed his complaints about "Yankee Race Horse." A U.S. Naval officer, formerly a Baltimore Committee member, met Miles at a party in Malta and after refusing to buy a copper *Constellation* medallion from the officer, Miles produced Chapelle's letter. Miles gave the officer a copy which was rapidly and secretly sent back to Baltimore.
102. CQ, p. 23; Chapelle to Baker, 1 Feb 1967; Chapelle's suspicion of Roosevelt is in Chapelle to Baker, 1 Feb 1967, box 4, RU-239, SIA; Chapelle's shift to suspecting Polland is in Chapelle to George K. Holland, 23 Feb 1972, box 3, Record Unit 7228, Howard I. Chapelle Papers, 1969-1975, Smithsonian Institution Archives (hereafter this collection and source will be cited as "RU-7228, SIA"). CQ, p. 39. Baker to Norman Rubin, 28 Sept 1968, LDP.
103. Memo, Chapelle to Miller, 14 June 1967, box 72; memo, Miller to Chapelle, 23 June 1967, box 72; Smithsonian Announcement, 25 Apr 1966, box 65; memo, Richter to Chapelle, 2 Aug 1967, box 72; an apparent later but undated draft of "Constellation Hoax," box 72; memo, S. Dillon Ripley to Heads of Organizational Units, undated, box 51; Record Unit 276, Records of the Director, National Museum of History and Technology, 1944-1975, Smithsonian Institution Archives (hereafter this collection and source will be cited as "RU-276, SIA").
104. The tip-off is John H. Harland to Polland, 30 June 1967, LDP; the review is by R.C. (Roger Charles) Anderson, *The Mariner's Mirror* 53 (May 1967): 196. Polland to T.D. Manning, 6 July 1967; Manning to Polland, 11 July 1967; Frank D. Scott to Manning, 23 July 1967; Polland to Harland, 17 July 1967, LDP. Scott's close connection with the Committee is in Polland to Lamar-Wallace Co., 25 July 1967 and "Scotty" (Frank Scott) to "Skipper" (Leon Polland), 22 Nov 1967, LDP. Part of Polland's letter was published in *The Mariner's Mirror* 54, #2 (May 1968): 152. Polland's strong views on Dr. Anderson's "mistake" is in Polland to Arthur Bugler, 19 July 1967; to B.T. Wardle, 17 July 1967; to H.T. Fitzpatrick, Jr., 24 Sep 1968, LDP. The tart criticism claim is reflected in Tom Glasgow, Jr. to Polland, 31 May 1968; Polland to Glasgow, 10 June 1968, both in LDP. Chapelle's close friendship with Dr. Anderson is in R.C. Anderson to Chapelle, 24 Dec 1970 and Chapelle to Anderson, 4 Jan 1970 (1971), RU-7228, SIA.
105. *The Mariner's Mirror* 54, #4 (Nov 1968): 407. Frank Scott to T.D. Manning, 26 Nov 1968; Manning to Polland, 30 Jul 1967, LDP.
106. Robert N. Clement to Dillon Ripley, 24 Dec 1968; Scott to Ripley, 26 Nov 1968; Charles Blitzer to Clement, 3 Jan 1969, LDP. The connection between Scott, Clement, and the Baltimore Committee is supported by the observation that carbon copies of both men's outgoing correspondence are in LDP. It also appears by typeface and format that Clement's letter to Ripley was probably typed by Mrs. Polland.

107. Polland to Manning, 4 Jan 1969; Manning to Polland, 23 Feb 1969 and 18 Mar 1969, LDP. Scott's published letter is in *The Mariner's Mirror* 55, #2 (May 1969): 209. Polland to Manning, 13 Mar 1969, LDP.
108. Chapelle to Baker, 6 Dec 1967, box 4, RU-239, SIA.
109. Memo, Chapelle to Richter, 18 Jan 1968; 6 Feb 1968 with attachment; Edson to Chapelle, 22 Sep 1968, box 62; Chapelle to Richter, 9 Feb 1968, box 62; to Chairman, MHT Publication Committee, 12 Feb 1968, box 62; to Baker, 29 Feb 1968, box 4, all in RU-239, SIA. Baker to Silvio Bedini, 25 Mar 1968, box 72, RU-276, SIA. *Baltimore Evening Sun*, 24 Jun 1968.
110. Stick to Frank A. Taylor, 27 June and 8 Aug 1968; Stewart to Senator John Sparkman, 29 June 1968; Taylor to Stick, 12 July 1968, to Sparkman, 12 July 1968, all box 72, RU-276, SIA. Frank Taylor was instrumental in seeking out and hiring Howard Chapelle as curator for the Smithsonian.
111. Charles McC. Mathias, Jr. to Chapelle, 8 July 1968; Chapelle to Mathias, 13 July 1968, folder 816, JLP
112. Memo to Mr. Chapelle, not typed, undated; memo, Robert P. Multauf to MHT Publications Advisory Committee, 25 Sep 1967; to MHT Publications Advisory Committee and Mr. Anders Richter, 2 Oct 1967; to Chapelle, 16 Nov 1967; Silvio Bedini to Multauf, 21 Dec 1967, all in box 72, RU-276, SIA.
113. Memo routing slip, Taylor to James Bradley and Charles Blitzer, 12 July 1968, marked "approved DR"; James Bradley to Blitzer, 16 July 1968; Blitzer to Ripley, 23 July 1968; memo, Richter to Taylor, 12 July 1968, all box 72, RU-276, SIA. Blitzer to Stick, 30 Aug 1968, NHC-SH; to Chapelle, 15 Oct 1968, LDP; Chapelle to Baker, 24 Oct 1968, box 4, RU-239, SIA; Chapelle to John S. Wade, Jr., 1 Dec 1971, box 5, RU-7228, SIA. Admiral Eller apparently sent a copy of the Baltimore rebuttal and other material to a friend, Admiral Schuyler Pyne for review. For some reason Pyne did not reply until after *CQ* was published. Pyne to Loomis, 26 Apr 1970, NHC-SH. We found no further evidence that the Baltimore portion was reviewed by anyone other than Admiral Eller and the Smithsonian press before publication.
114. Blitzer to Chapelle, 6 Nov 1968, box 72, RU-276, SIA; Chapelle to Baker, 29 Nov 1968, box 4, RU-239, SIA.
115. The "hate campaign" view is in unattributed (probably Polland) hand-written notes. "*Chapelle*," undated, but 1968; Richter to Stick, 14 Nov 1968, LDP; Lundeberg to Eller, 10 Dec 1968; and Eller to Lundeberg, 12 Dec 1968 with notation "Mr. Olsson -Comments to Adm. Eller, Monday 16 Dec AM," NHC-SH; Chapelle to Baker, 17 Dec 1968, box 4, RU-239, SIA. Compare the lengthy vitriolic draft letter to Blitzer probably by Polland marked "NOT SENT," 27 Dec 1968, LDP with the finished letter, Stick to Blitzer, 27 Dec 1968, box 72, RU-276, SIA. Handwritten research notes by Lundeberg, July 1961 and memo, David Rosenberg to Chapelle, undated but Aug 1969, DMH-SI.

116. Lundeberg to Blitzer, 7 Jan 1969, box 72, RU-276, SIA; Chapelle to Baker, 17 Dec 1968, box 4; memo, Blitzer to Chapelle, 3 Jan 1969; Chapelle to Blitzer, 6 Jan 1969, both box 62, RU-239, SIA; Blitzer to Stick, 7 Jan 1969, LDP. "Judge" (Eller) to "Dillon" (Ripley), 16 Dec 1969; "Dillon" to "Judge" 10 Jan 1969, both box 72, RU-276, SIA. Chapelle's irate marginal comments are on another copy of the same letter in folder 815, JLP.
117. James A. Knowles, Jr. to Richard H. Randall, 13 Jan 1969, box 5, RU-7228, SIA; Harold R. Manakee to Knowles, 22 Jan 1969, folder 816, JLP; Chapelle to Baker, 17 Jan 1969, box 4, RU-239, SIA; Richter to Polland, 11 Apr 1969 and Polland to Richter, 25 Apr 1969, LDP; Chapelle to Roger C. Taylor, 19 Jun 1969, box 5, RU-7228, SIA; Polland to Bernard Wardle, 12 Aug 1969; to Blitzer, 31 Mar 1969, LDP; Chapelle to R.C. Anderson, 27 Jun 1969, box 1, RU-7228, SIA. The unexpurgated draft is "A Constellation Treatise," L.D. Polland, March 1969 in NHC-SH. Polland to Blitzer, 10 Feb 1970 and Blitzer to Polland, 16 Feb 1970, LDP.
118. Constellation Committee minutes, 20 Mar 1969, NHC-SH; Chapelle to Richter, 14 Apr 1969, box 62, RU-239, SIA; Richter to Polland, 15 May, LDP.
119. Chapelle to Butt, 17 July 1969, PNSYM. Chapelle to Blitzer, 19 Feb 1970; to Robert F. Cairo, 12 Mar 1970, both box 1, RU-7228, SIA. The actual views of the Naval History Division by 1970 have not been verified. Chapelle's understanding of the Division's position is presented here.
120. (Washington, D.C.) *Evening Star*, 12 Nov 1970.
121. *CQ*, pp. 23-24, 30, 31, 17-42, 40-42.
122. *CQ*, pp. 38-40.
123. Chapelle to Lundeberg, 2 Oct 1969, box 4, RU-7228, SIA; *CQ*: 66, 95, 29, 12; Brewington to Chapelle, 26 Mar 1964; memo, Lundeberg to Chapelle, 18 Feb 1963 in DMH-SI. A xerox of the manuscript offsets is also in LDP.
124. *CQ*, p. 60; "A Constellation Treatise," Leon D. Polland, March 1969, NHC-SH.
125. *CQ*, p. 77.
126. Polland used both middle initials within the same publication. Compare *Frigate E*, p. 8 and pp. 160-161; SNAME, p. 004. Commandant, Gosport Navy Yard to Bureau of Equipment and Repair, 20 May 1854 entered 22 May 1854, Minute-book; *CQ*, p. 77; *Register of the Commissioned and Warrant Officers of the Navy of the United States...1853*, (Washington: C. Alexander, 1853) p. 113.
127. *CQ*, pp. 114-118, 88, 78.
128. *CQ*, pp. 5-16.
129. *CQ*, pp. 43-55, 18.
130. *CQ*, pp. 13-16.

131. *CQ*, pp. 93-94, 139-141. Photographs of stamped bolts are in *CQ*, p. 140; construction note, 8 Mar 1969, LDP.
132. Polland to Mr. Mazurek, 4 Mar 1970, LDP; Chapelle to Jay Hanna, box 3, and to Baker, box 1, 17 Dec 1970; to Philip C. Bolger, 12 Feb 1971, and Baker to Chapelle, 9 Dec 1970, both box 1, RU-7228, SIA. *CQ*, pp. 3-4.
133. John Lyman, book review of *CQ* published in *The American Neptune* 32 (1972): 71-72.
134. Within the Constellation Committee was, for a period of time, a position titled "historian" which was filled by Michael Morgan, a former shipboard volunteer who by 1965 had become a high school teacher. Morgan's limited work appears to generally document the operational history of the ship and crew. See Polland to Charles Eddington, 5 Dec 1966, LDP and Michael Morgan, *Men of the Constellation* (N.p., 1969) a manuscript book in the Navy Library, Naval Historical Center, Washington Navy Yard, Washington, DC; memo, Polland to Eller, 15 Sept 1969; Constellation Committee minutes, 25 Sept 1969, LDP. "Inventory of Constellation Research Documents," 3 Dec 1965, LDP, specifies that Stewart and Schneid had collected plans, prints, photostats, photographs and other materials since 6 Mar 1956. Schneid's interests were mentioned by Polland in his acknowledgements in *Frigate E*. It is curious that Polland did *not* acknowledge Stewart in that 1962 manuscript. That most, if not all, of the significant documentation supposedly establishing the 1797 origin belonged to the Committee and was not discovered by Polland is: L.D. Polland, "U.S. Frigate *Constellation* Record File, Plans & Related Documents," 1964, LDP. On early copying methods, see William R. Hawken, *Copying Methods Manual* (Chicago: American Library Assoc., 1966). Frederick E. Meyett, Jr., "Summary of the Constellation Controversy: A Research Paper Submitted to The Head of the Department of English, History, and Government," Feb 1963, Nimitz Library, U.S. Naval Academy, Annapolis, Maryland. It is clear that Meyett saw and quoted from the Committee historical and correspondence files. Of particular interest in his paper is a certified-correct transcript of a conversation with Donald Stewart on 9 Feb 1963. Stewart told Meyett that the *Constellation* was not destroyed in 1853 because she was hauled up from the water and old ships were always destroyed by burning. Further, according to Stewart, Stodder redesigned the frigate because the plans and "pre-cut timber frames" were lost when the ship carrying them went down off Cape Henry in the spring of 1795.
135. Schneid to Paul Hanlon in returned non-deliverable envelope, 18 Sep 1960, LDP. See Polland notes hand-written on typescript of "Letter - from Charles Stewart - Captain-USN to the Honourable Secretary of the Navy," 2 Jan 1813 and typescript, "Description of US Frigate *Constellation* by Capt. Thos. Truxtun - Journal, Penna. Hist. Soc." both in LDP.
136. On abandoning the Roosevelt Brief, see this report, pp. ⁴⁹~~53~~. Construction notes, 10 and 29 May 1961.
137. On anachronistic orthography, see John H. Harland to Polland, 8 July and 22 Aug 1966, LDP. 138.

138. 5" x 7" annotated file cards, card covering 8 Aug to 4 Sep 1968, LDP.
139. John Lyman, "The Constellation and Her Rebuilding," *Sea History* 3 (July 1975): 24; Dick Bloom to Polland, 29 Dec 1970, LDP.
140. Recent writers concerned with artifactual evidence include William M.P. Dunne, "An Inquiry into H.I. Chapelle's Research in Naval History," *The American Neptune* 49, #1 (Winter 1989): 39-58 and Evan Randolph, "U.S.S. Constellation, 1797 to 1979," *The American Neptune* 39, #4 (Oct 1979): 235-255. Caution should be used when consulting Dunne on Chapelle. See William M.P. Dunne, letter to editor, *Naval History* 4, #2 (Spring 1990): 8-9 and Dunne, untitled article, *Sea Heritage News* 19 (1986). Randolph is covered elsewhere in this report.
141. The drastic reduction of the amount believed to be original material is in Polland to Edwin Auerbach, Jr. 19 Dec 1968 and again revealed in handwritten added pages 13-14 to speech entitled "Restoration of the Frigate Constellation" prepared by Polland for presentation to the Baltimore Chapter of the Nautical Research Guild, 29 Apr 1968, both in LDP. It appears that the handwritten pages were appended to the 1968 speech in preparation for its reuse at the University of Baltimore on 2 Nov 1979. The second draft and the presentation script of the 1979 speech do not include his statement about the reduced area of original material but it does appear in notes prepared for an expanded version of the same speech presented to the same group on 10 Oct 1980, LDP. Polland quietly admitted his change of opinion in *CQ*, p. 116 with the statement that in 1853 the ship was razed and "...in many areas cut down to the floorboards." This phrase was introduced between SNAME (1966/68) and the *CQ* drafts (1969). It did not appear in SNAME, p. 12. His reassessment did not appear in his work notes.
142. Labor and Material Cost Accounting sheets, weeks of 24 Feb 1967; 4, 3 March 1967; Martin Millspaugh to Polland, 30 July 1969; William Donald Schaefer to Polland, 7 May 1969; draft press release, 5 Nov 1969; *Constellation* Committee minutes, 26 Feb 1970, all in LDP.
143. *Constellation* Committee minutes, 29 Jan 1970, NHC-SH; construction note, 26 Dec 1971; Stick to Polland, 16 Apr 1971; memo, Hugh Benet, Jr. to Jean Hofmeister and Stick, 15 June 1973, LDP.
144. *Constellation* Committee minutes, 30 Apr 1971, NHC-SH. Polland to Mathias, 17 Nov 1971, 15 Jan 1972; Mathias to Polland, 29 Dec 1971, 2 and 27 Feb 1972; Vincent J. Doyle to Mathias, 22 Feb 1972, LDP.
145. "Erroneous" and "illegal" are from memo, Harold E. Bishop, Jr. to MSPO-Md., 19 Apr 1973; Edwin Warfield III to Marvin Mandel, 14 May 1973; "Chain of Command Aboard the Frigate Constellation," 28 May 1975; John H. Ensor to Hugh Benet, Jr., 20 Jun 1973; John A. Pentz to Polland, 6 Sep 1973; Polland to Pentz, 13 Sep 1973; receipt, 12 July 1975, 10 a.m. signed by Stick and Polland; Polland, draft letter to Eller, 18 July 1975; Hofmeister to Polland, 18 July 1975; Stick to Polland, 27 July 1975; construction notes, 16 Jan 1974, 7 Feb 1974, 21 and 22 May 1975; Senate of Maryland, No. 338, A BILL ENTITLED AN ACT concerning Creation of a State Debt - Restoring The Frigate Constellation, read first time 29 Jan 1974, all in LDP.

146. *Washington Post*, 3 Jul 1975, 2 Mar 1987.
147. John Lyman's biographical information is from *World Who's Who in Science* (Chicago, Marquis - Who's Who, Inc. 1968), p. 1082; John Lyman, "Centennial of Pressure-Pattern Navigation," U.S. Naval Institute *Proceedings* 74, #3 (Mar 1946): 309; Karl Kortum, "John Lyman: The Hub of Our Wheel," *Sea History* 12 (Fall 1978): 13-15; *Log Chips*, number 2 (Feb 1950); John Lyman, biographical panel transcript, taken from panel in Lyman Reading Room, J. Porter Shaw Library, San Francisco Maritime National Historical Park, 10 June 1990: text provided by Park staff.
148. 148. Lyman's early and continued interest in *Constellation* is seen in Lyman to R. Walter Graham, 8 Mar 1958; Eller to Lyman, 1 July 1966; Elizabeth B. Drewry to Lyman, undated but Dec 1968, folder 815, JLP. Lyman's purchase of SNAME is Pollard to Lyman, 13 June 1968, LDP. Lyman to Director, Naval History Division, 2 Dec 1968, NHC-SH; to Chapelle, 26 Nov 1971, 15 Jan 1972; Chapelle to Lyman, 9 Dec 1971, 2 Feb 1972; box 4, RU-7228, SIA; Chapelle to Lyman, 8 Dec 1971, folder 815; Lyman to John Haskell Kemble, 5 Jan 1972, folder 816, JLP.
149. John Lyman, book review of *CQ, The American Neptune* 32, (1972): 71-72. Answers to many of Lyman's questions are in this report.
150. *Ibid.*, p. 71. Chapelle to Lyman, 30 Mar 1972, box 4, RU-7228, SIA.
151. D.C. Allard to Lyman, 27 Oct, 16 Nov 1971; D.C. Matheny to Chief of Police, University of North Carolina, enclosing Federal Bureau of Investigation report, lab number D-711115081 HW, 29 Nov 1971; Lyman to Naval Institute, 5 Jan 1972; Robert P. Brewer to Lyman, 18 Apr 1972, all from folder 815, JLP.
152. John Lyman, "The Constellation and Her Rebuilding," *Sea History* 3 (July 1975): 223-28.
153. *Baltimore Sun*, 21 Sep 1975; press release, "How Old is Baltimore's Constellation? Bicentennial Flagship a Case of Mistaken Identity," National Maritime Historical Society, Sunday, 21 Sep 1975, folder 815, JLP. The press release was probably timed to coincide with the sale of the July issue of *Sea History*. Note that Stewart wasted no time arranging his interview with Erlandson. The Lenthall letter was publicized the same day the Maritime Historical Society press release was issued.
154. Lyman to Director, National Maritime Museum, 30 Sep 1975; to Erlandson, 3 Oct 1975, 14 Oct 1975, 29 Oct 1975; R.J.B. Knight to Lyman, 8 and 14 Oct 1975; Erlandson to Lyman, 17 and 20 Oct 1975; all from folder 815, JLP. The National Maritime Museum in Greenwich was not created until 1934 and does not collect American letters. See D.J. Lyon to author, 5 Dec 1989, DTRC.
155. More recent renditions of the *Constellation* story include, Brother C. Edward, "The USS Constellation," *American History Illustrated* 9, #1 (Apr 1974): 12-25; Gilbert A. Crandall, "Yankee Race Horse," *Sea Classics* 5, #2 (Mar 1972): 48-58; Dunne, "An Inquiry into H.I. Chapelle's Research in Naval History,"

39–58; Sanford Sternlicht and Edwin M. Jameson, *U.S.F. Constellation: "Yankee Racehorse,"* (Cockeysville, MD: Liberty Publication Co. 1981); P.M. Callaghan, "Preserving America's Oldest Warship," *All Hands* (Dec 1980): 31–38; Beach, *United States Navy*, p. 233. The results of canned historical data previously distributed by the ship can be seen in numerous currently available Baltimore tour guides and even a cook book. *Modelling the USF Constellation* by Gilbert C. McArdle (Cornell Maritime Press, Centreville, MD: 1985) is a recent book about how to build a model representing the altered ship on display in 1985. Supplied with plans and advice by Leon Pollard, McArdle strongly favors the 1797 origin of the present vessel and his section "Historical Notes on the USF *Constellation*" should be avoided. McArdle chose to model the ship using similar types of wood employed on the real ship. Several of these types are not well suited for scale modelling and in our opinion the resulting reproduction is noted for its lack of beauty.

156. A. Farenholt to Naval Academy Museum, 6 Mar 1929, Naval Academy accession file on *Constellation* half model.
157. See this report, pp. 4–5 and Appendix A. Meade, *Treatise on Naval Architecture*, p. 203.
158. The half model is sloop-of-war USS *Constellation*, Naval Academy Museum, U.S. Naval Academy. The x-radiographs taken at David Taylor are in DTRC. The best indicators on the use of the half model during this period are John W. Griffiths, *Treatise on Naval and Marine Architecture* and Samuel M. Pook, *A Method of Comparing the Lines, and Draughting Vessels, Propelled by Sail or Steam* (New York: D. Van Nostrand, 1866) partially reprinted as "Laying Out in the Mould-Loft," *Nautical Research Journal* 35, #3 (Sept. 1990): 147–159. Griffiths (1809–1882) was a successful clipper ship designer and Samuel M. Pook (1804–1878) was a U.S. naval constructor from 1841 to 1866. Both specify that they made half models prior to lofting or developing lines on paper. Richard W. Meade, not a naval constructor, suggests that "many builders" produced a rough drawing before making the half model. See Meade, *Treatise on Naval Architecture*, p. 203. It is doubtless that some preliminary drafts were necessary before creating the half model. See Appendix A.
159. National Gallery of Art, Painting Conservation Dept., "Technical Exam: Half-model and backing board of the CONSTELLATION, U.S. Naval ship model, examined with infrared and x-ray equipment on July 6 and 7, 1989" by Kristin Casaletto, in DTRC.
160. National Gallery of Art, Science Department, "Analysis Report" (XRF), 13 July 1989 by Lisha A. Glinsman and "Analysis Report" (wood anatomy), 13 July 1989 by Michael R. Palmer, both in DTRC.
161. The 1855 plans are drawings 128547 and 128584 in RG-19, E-126, NARA.
162. Drawing, "Frigate Constellation & Congress," U.S. Naval Academy Museum, Naval Academy; *CQ*, p. 11.

163. On the Whatman countermark, see Thomas Balston, *James Whatman. Father & Son* (New York: Garland Publishing, 1979) and Thomas Balston, *William Balston, Paper Maker, 1759-1849* (London: Methuen & Co., 1954). We were surprised to find that apparently few persons at the National Archives have examined Archives naval drawings for watermarks and countermarks. Whatman papers seemed favored by U.S. Navy designers through the first half of the nineteenth century and frequently countermarks can be seen, identified, and dated.
164. *CQ*, pp. 15-16; *Providence (RI) Sunday Journal*, 3 Apr 1949. On recent attacks, see Dunne, "An Inquiry into H.I. Chapelle's Research in Naval History," 41-45; Dunne, letter to editor, *Naval History* 4, #2 (Spring 1990): 8 and 10; W.M.P. Dunne, untitled paper and Henry P. Silka, "Howard I. Chapelle, R.I.P.: Where Do We Go from Here?," joint presentation of papers at the Ninth Annual Symposium on Southern New England Maritime History, Mystic Seaport Museum, 10-11 Nov 1989. Papers courtesy of the authors. On the confusion Chapelle's statement has wrought, compare for example, p. 40 with pp. 45-46 in Donald Canney, *Old Steam Navy*.
165. The Magoun letter with attached Delano diary excerpts is Record Group 45, Naval Records and Library Collection, entry 464, "Subject File, U.S. Navy 1775-1910," AR: Repairs to U.S. Ships, box 2, NARA. The letter excerpt is reproduced in SNAME, p. 102 and the diary excerpt retranscribed on p. 98. The Capps Report is found in both NHC-SH and LDP.
166. Federal Bureau of Investigation, Report of the FBI Laboratory, File number 95-289755, 20 Sep 1989, DTRC.
167. The Capps Report is "The Major Battle Damage, Repairs, and Reconstruction to U.S. Ship 'CONSTELLATION' 1797-1855. Prepared by the Bureau of Construction and Repair - USN by Rear Admiral Washington L. Capps, Chief of the Bureau, at the direction of Hon. Truman H. Newberry, Assistant Secretary, Department of the Navy," undated but supposedly 1905-08, LDP and NHC-SH. The text is transcribed in SNAME, pp. 32-41. Pye biographical data is from "Vice Admiral William S. Pye, U.S. Navy, Deceased," 6 July 1959, NHC-OA.
168. Record Group 45: Naval Records and Library Collection, entry 464, "Subject File, U.S. Navy 1775-1910," AR: Repairs to U.S. Ships, box 2, NARA.
169. Frederick Alexander Magoun (1896-1968?) was an instructor of naval architecture for a time at MIT. Though better known as a consultant on industrial, personal, and marital relations, Magoun's only identifiable book on naval history is *The Frigate Constitution and Other Historic Ships* (Salem, MA: Marine Research Society, 1928). It is a book about building ship models. The National Archives did not reply to the suggestion that the document be laboratory tested; Author to Barry Zerby, 29 Mar 1990, DTRC.

170. Stodder to Pickering, 30 Apr 1795, LDP. The Stodder letter is reproduced in *CQ*, p. 115. Chapelle's belief that Stodder must have made a mistake is *CQ*, p. 27. The great unlikelihood that Stodder would have been allowed to redesign a major warship is apparent in William P. Bass, "Who Did Design the First Frigates?": 49-54.
171. B.F. Delano to Samuel Hartt, 27 Feb 1853, LDP. 5-1/2 or 6-day work weeks were common at the time but Sunday was still the Sabbath. Polland noted that "on close examination" the signature on the 1853 letter appeared to be traced over and the initials "E.H." mistakenly seen to read "B.F." See *CQ*, p. 77. We agree that some copies of the letter in the Baltimore files indeed appeared tampered. But to the contrary, several clear versions unmistakably show that it was originally allegedly signed "B.F. Delano" and "E.H." was superimposed on some copies. The simulation was probably created before the two Delanos were sorted out, see p. 51. The letter is transcribed in Randolph, "U.S.S. Constellation," pp. 244-245. James Browne, Department of the Treasury Laboratory Report, number 90N0225, 25 Sep 1990, DTRC.
172. "History, General Correspondence, U.S. Naval Training Station, Newport, RI, 1883 to 1948," microcopy T-1017, NARA.
173. Memo, Secretary of the Navy to Commanding Officer, Navy Yards and Store Stations, 1 Feb 1926; memo, C.L. Andrews to Commanding Officer, 11 Feb 1926; G.J. Rowcliff to Secretary of the Navy, 30 July 1930, microcopy T-1017, NARA.
174. Anthony S. Nicolosi, "The Founding of the Newport Naval Training Station, 1878-1883, An Exercise in Politics," *The American Neptune* 49, #4 (Fall, 1989): 291-304; Theodore Roosevelt, *The Naval War of 1812* (New York: G.P. Putnam's Sons, 1882), preface dated 1882, New York City; *CQ*, p. 24; John Davis to F. Kent Loomis, 29 May 1969, NHC-SH. The second eyewitness account is Francis E. Clark to Polland, 30 Apr 1971, LDP.
175. The Committee version of the Roosevelt Brief is published fully in "Yankee Race Horse": 17-31 and is claimed to be Roosevelt's words: 17, introductory footnote. The Committee version typed copy of the Brief is "Early Construction of Frigates and U.S.S. Constellation (Yankee Racehorse), Franklin D. Roosevelt, Assistant Secretary of the Navy," undated. It is formally cited on the cover page as from "General Services Administration, National Archives and Records Service, Franklin D. Roosevelt Library, Papers of Franklin D. Roosevelt, Group 10, Naval Affairs, May 1919." There is no Naval Affairs file in Group 10: Raymond Teichman to author, 5 Apr 1990, DTRC. The other, and more crudely typed version, is "Rebuilding and Repairs-U.S.S. Constellation, Franklin D. Roosevelt - Secretary of the Navy - Acting," undated, in Group 14: Roosevelt Family, Business and Personal Papers, Collections Correspondence: Historical Manuscripts, 1908-32, Franklin Roosevelt Library. LDP also has a xerox of the crude version. Copies of the crude document were located and sent by the Roosevelt Library to Eller in 1958, Stewart in 1959, and Schneid in 1960: telephone conversation, author and Robert Parks, Roosevelt Library, 2 Jan 1990.

176. To detect the probable forgery method, simultaneously compare the two typed versions (cited above) with Franklin Roosevelt, "Our First Frigates. Some Unpublished Facts About Their Construction." The Roosevelt Library probably incorrectly states the Brief appears to have been used in the preparation of Roosevelt's 1914 article, "Our First Frigates"; Teichman to author, 21 Dec 1989, DTRC. That the Library would have no accession safeguard system to determine if an individual document like the Brief had been added by a researcher before 1958 is: telephone call, author to Teichman, 11 Apr 1990.
177. Chapelle accepted the Christmas note and published it in *CQ*, p. 22. It is also in "Yankee Race Horse," 31; Carroll Kilpatrick, ed., *Roosevelt and Daniels: A Friendship in Politics* (Chapel Hill: University of North Carolina Press, 1952). See also Theodore Roosevelt to Anna Roosevelt, 21 Aug 1881 in Elting E. Morison, ed., *The Letters of Theodore Roosevelt* 1 (Cambridge, MA: Harvard University Press, 1951), pp. 50-51. Raymond Teichman to author, 21 Feb 1990, DTRC. Paolo E. Coletta, "Josephus Daniels," in Coletta, *Secretaries of the Navy* 2: 525-581. Roosevelt stated, "It is difficult to select any one of these vessels (*Constitution, Constellation, Olympia, Hartford, America*) as having a better claim for preferential treatment than the others." Franklin Roosevelt to John J. Cochran, 1 June 1936, 74th Cong., 2d sess., *Congressional Record*, p. 10817.
178. The "original" document is memo, Franklin D. Roosevelt to Director, Bureau of Construction and Repair, 31 July 1913, Record Group 19: Records of the Bureau of Ships, entry 92, "Correspondence regarding ships (E flat file) 1912-1915," box 85, NARA. The recent publication of the likely spurious memo is p. 44 in Dunne, "An Inquiry into H.I. Chapelle's Research in Naval History," 39-55. It is also reprinted in Randolph, "U.S.S. Constellation," 246-247.
179. The official use of the term "chief" for the head of the Navy's construction bureau can be traced unbroken between 1842 and 1913 through successive editions of the *Government Register*.
180. See endnote 178.
181. Telephone call, Stanley Tozeski to author, 31 Aug 1989. For examples of Barracks B documents also bearing the National Archives stamp, see Pickering to Stodder, 18 May 1795 and Truxtun to Livingston, 22 May 1795 both in NHC-SH. Early on, Polland depended much on a document purporting to be "Sworn-Statement, J. Fox - in the Year 1825," NHC-SH. In it Fox allegedly claimed that Stodder actually drafted the *Constellation*. From Barracks B, the title was merely a pencil addition to an originally untitled typed document. In 1966 Polland had his doubts about it (SNAME, p.13) and by 1969 he said, "We will not again use time and space belaboring the Fox 'Sworn Statement' ..., " *CQ*, p. 92.
182. Chapelle reproduced the forged 1918 memo in *CQ*, p. 38. The clone is "Memo - Commanding Officer, U.S.S. Constellation. Directive - To permit the flag....," 8 May 1918, LDP.

183. Apparently not aware of the confusion, Chapelle used "Robert" in the text of *CQ*, but the reproduced document clearly reads "Charles." Compare *CQ*, pp. 37 with 38. The Meade/Davis (Robert E.) interview was quoted in "Yankee Race Horse," p. 29, footnote 35. A presumable retranscript, though not marked as such, is in LDP. Chapelle apparently never found the interview in the Naval Training Station files. *CQ*, pp. 37-40, 86-87. The Davis visit could not be well documented because there are no *Constellation* logs surviving between 10 Mar and 15 Dec 1904. This is similar to the problem encountered verifying the murder of the eleven year old boy in 1822 which also occurred during a gap in logs. See p. 32 and note 74. Compare "The following information is relative to the rebuilding of the U.S. Sloop of War 'Constellation.' Navy Department - 1913," undated with "memo-Commanding Officer, U.S.S. *Constellation*. Directive-to Permit the Flag..., 8 May 1918, LDP with similar memo reprinted in *CQ*, p. 38.
184. Executive Officer to Officer in charge of point (*sic*), 29 June 1918, LDP.
185. Typical of many Baltimore citations, Chief Edmund Delavy is variously called "Captain" or "Commander" and his name is spelled both "Delavy" and "Delavey" (once "Delaney"). See *CQ*: 114, 136; *Frigate E*: 193; SNAME: 007 and 114. The photostat of the report is "Report on work completed aboard U.S.S. *Constellation* at the Philadelphia Naval Shipyard from October 30 through November 29, 1926, following the Sesqui-Centennial Cruise by E. Delavy, Commanding Officer U.S.S. *Constellation*," undated, in NHC-SH. Olsson's handwritten note is on the reverse.
186. *Frigate E*, pp. 39, 44, 75, 99, 158; SNAME, pp. 9 and 18; *CQ*, pp. 10, 33, 45, 50-52, 118; John Lyman, *Constellation Question*, book review, *The American Neptune* 32, (1972): 71-72. The often-quoted "strange feature" phrase is from a confused two-page set of notes titled, "This report listed is other than battle damage and the specifications for repairs are from ware and tare (*sic*) at sea.," in LDP. The full text is transcribed in SNAME, p. 97. No source for the origin of the alleged Tingey statement is given. Polland merely cited it as "Transcribed statement of Captain Tingey," *CQ*, p. 146, note 20 and again p. 147, note 37 and gave no source. "Yankee Race Horse," p. 24, note 25 indicates it was from the dubious Training Station files. Other Tingey material was allegedly found by a mysterious Washington Navy Yard employee researching at the Library of Congress. Recall that this employee and his sources were never located (see pp. 37-38).
187. SNAME, p. 23. The January 2, 1813 letter is marked "Source-Library of Congress, Naval Historical Foundation Files" in LDP. Polland's doubts are handwritten in the upper right corner and in *Frigate E*, p. 30. The letter is exceedingly long (about 1500 words) and gives many trivial details describing the *Constellation*. It is unlikely that the Secretary of the Navy would have cared that "...over the bunkey is a shelf with books...." An untitled page of handwritten notes dated 9 June 1957 matches the 1813 letter and is possibly in the handwriting of the employee seen with the rubber stamp: 5" x 7" annotated file cards, LDP. A copy of Charles Stewart's undated report as "Work Constructor - Captain" is in NHC-

- SH. Joseph Nathan Kane, *Facts About the Presidents*, (New York: H.W. Wilson, 1974), p. 34.
188. *CQ*, p. 114; SNAME, p. 10. The alleged Bell letter is attached to memo, L.M. Nulton to Capt., *Constellation*, 27 Nov 1931, PNSYM. U.S. Navy, *Navy Filing Manual*, 4th ed. (Washington: GPO, 1941); Naval History Division, *Dictionary of Fighting Ships 2*: 173; Navy Department, *Ships' Data U.S. Naval Vessels* (Washington: GPO, 1 July 1931) does not list a hull number for the *Constellation*. See p. 7.
 189. 189. E.L. Cochrane, "Constellation - U.S. Frigate - 1797, Constellation - U.S. Sloop - 1855 - Report on Construction," 14 Apr 1953, LDP. John G. Arrison to author, 21 Dec 1989; Rolf Brown to author, 14 Feb 1990, DTRC.
 190. "Inventory of Constellation Research Documents," 3 Dec 1965, LDP. Leonard Cushing died in 1962 and some of his papers were given to the Committee and the Naval Historical Foundation. Some documents attributed to Cushing may be fakes. See "Summary of Information Relative to the Rebuilding of U.S. Frigate Constellation in 1854," L.F. Cushing, 7 Nov 1951, NHC-SH. The typo-filled report bears the rubber stamp of the Boston Naval Shipyard Technical Library and cites very cryptic documentation. Another error-filled letter copy which appears to have been cut and pasted is Cushing to Ralph J. Robinson, 10 June 1954, LDP. A typed transcribed letter, Fox to Truxtun, 2 Apr 1795 has very curious phrasing and specifically says Stodder redesigned the *Constellation*. The transcription is in NHC-SH and marked "Transcribed by Mike Morgan, Salem. Peabody - 8 '67." On Michael Morgan, see note 134. The Peabody Museum could not find the letter: Richard D. Martin to author, 21 Dec 1989, DTRC.
 191. The dry docking plans are drawings 107-13-4A and B, RG-19, E-126, NARA. They have been reproduced in *CQ*, pp. 27-28. Leon Polland, speech, University of Maryland, 18 Feb 1965, pp. 6 and 8, LDP; *CQ*, p. 77.
 192. Polland more or less reproduced the cloud in *CQ*, p. 88. A comparison with the cloud appearing in pencil on drawing 107-13-4B at the National Archives indicates that Polland squared the lines a bit. The two other drawings that are believed amended to favor authenticity are "Stern of the U.S. Frigate Congress," 40-10-9F, RG-19, E-126 and "Gun Deck Plan of the Frigate Constitution, Raritan, Congress, Aug. 1852," red file #1283, RG-74, Records of the Bureau of Ordnance, entry 202, "Plans, Drawings, and Sketches, 1818-1921," both NARA. The stern drawing has "Constellation" and the date "1812" pencilled-in. The watermark on the paper is 1858 and the drawing shows the *Congress* of 1858. Unfortunately much of the present restoration of the stern of the *Constellation* was based on this perhaps deliberately re-marked drawing. The gun deck drawing has the name "Constellation" inked-in next to "Congress." The *Constellation* and *Congress* were sisters in 1797 but a new *Congress* was built in 1841 and by 1852 the two frigates bore little resemblance, especially in gun deck length. See Naval History Division, *Dictionary of Fighting Ships 2*: 163-164. Perhaps one of these drawings was the "doctored" drawing found by Chapelle. (See this report, p. 28.)

193. The offset tables are drawing 142-1-7, RG-19, E-126, NARA. Polland believed the ship's tumble-home was largely eliminated in 1812 (SNAME, pp. 17-19) bolstering his view that the 1853 dry docking plan, which shows a ship with 18th century-style tumble-home, was derived from the Humphreys plan that Stodder supposedly discarded. However, Enoch Wines described the *Constellation* in 1829: "In the beauty of her hull, she is unequalled by any thing I have ever seen afloat. The easy swell and curvature of the sides, and the general harmony of the proportions are inimitable. The new frigates may present a more war-like appearance, but the monotony of their sides, rising as they do almost perpendicularly from the water to the hammock-nettings is any thing but graceful or agreeable." E.C. Wines, *Two Years and a Half in the Navy 1*, (Philadelphia: Carey and Lea, 1832), p. 20. Although he was aware of the Wines book, Polland's belief was based on a series of documents now believed to be spurious.
194. The Roosevelt schematic is reproduced in *CQ*, p. 91. We never found an "original" copy of the drawing. Dick Bloom to Polland, 29 Dec 1970, LDP; Lyman, "The Constellation and Her Rebuilding," 24.
195. See Appendix A. For drawings of ships undergoing lengthening, see for example: 138-13-12, "Proposed alteration of U.S. Frigate Sabine...Navy Yard New York, April 26th, 1854"; 79-10-7B, "Proposed alteration of U.S. Frigate Sabine...Navy Yard New York, April 26th, 1854. B.F. Delano, N.C."; 79-10-7A, "Profile of U.S. Frigate Sabine as a Corvette, April 26th, 1854"; 107-10-9M "Plan for lengthening U.S. Frigate Sabine 20 feet. Navy Yard New York, June 15th, 1854. B.F. Delano, N.C."; 107-11-14E, "U.S. Frigate Santee, Navy Yard Kittery, ME, May 9th, 1854. I. Hanscome, N.C.," RG-19, E-126, NARA.
196. See Appendix A. Chapelle and Polland argued a lot about the rounded stern of the *Constellation*. It was not apparent how the stern configuration really mattered much in determining the age of the present ship. It suffices to say that the vessel commissioned in 1855 had a rounded stern. This was agreed upon by both Chapelle and Polland. This study has also chosen to discount a so-called "Mizzen Mast Survey" drawing claimed to represent *Constellation* in either 1829 or 1840. Copies are in LDP. Polland made much of this drawing in *CQ*, pp. 95-96 and SNAME, p. 21. He admitted that the original could not be relocated at the National Archives. Peculiar, marked "FDR," originating from Committee files, and with no locatable original: with some reservation, this drawing was likely spurious.
197. Randolph, "U.S.S. Constellation," 235-255. Randolph to Robert E. Michel, 8 Dec 1980; Herbert E. Witz to Naval Institute, 26 Mar 1982; memo, Randolph to List with enclosures, undated but about Aug 1981; Witz to Randolph, 25 Jan 1978, 14 Oct 1981, DMH-SI.
198. Brochure, "Constellation Dispute," 4 pp., undated, by Evan Randolph, Chairman, Descendants of Commodore Truxtun, MHS and DMH-SI. Randolph W. Chalfont draft letter to Randolph, undated, MHS.

- Evan Randolph, "U.S.S. Constellation," 235-255; Report, "Constellation Research," Evan Randolph, 19 Apr 1978; "Constellation Research Proposal," Evan Randolph, undated but about 1977; Randolph to Peter Neill, 3 Sep 1984, all from DMH-SI.
199. Randolph, "U.S.S. Constellation," 235, 236-240, 237, 241-243, 244-245, 246-247. That Randolph was at least later aware of some forgeries is in Randolph to Robert E. Michel, 8 Dec 1980, DMH-SI. A hold plan is a diagram which outlines the usable interior stowage space in a ship's hold. Because usable storage space does not bear a direct relationship to the exterior shape of a ship, it is not a reliable document in this case. Appendix B positively links the 1853 docking plans to Humphreys' 1795 plans, indicating that there was no significant interim version of the *Constellation*'s hull between 1797 and 1853.
 200. On the ambiguous *Southern Argus* newspaper article, see Chapelle to John C. Emmerson, 5 June 1954, PNSYM; *CQ*, p. 37 and 85; Randolph, "U.S.S. Constellation," 248, 249, 244, 246, 240-241, 240, 242.
 201. Admiral John D. Kane to Randolph, 28 Apr 1982; Lundeberg to Kane, 17 May 1982; Philip Chadwick Foster Smith to Randolph, 13 Nov, 27 Dec 1978; Randolph to Lundeberg, 1 and 2 Jan 1979, DMH-SI. Randolph to Baker, 24 Dec 1980, Hart Nautical Museum. For further controversial views, see Evan Randolph, "Roux Painting Mystery Solved!," *The American Neptune* 50, #1 (Winter 1990): 60-62 and oppositional letter to the editor by Harold R. Bosche in *Seaways* 1, #5 (Nov/Dec 1990): 62.
 202. Statement of Thomas Taormina, 18 June 1964; construction note, 18 June 1964, LDP.
 203. Telephone conversation, author to Ann Grimes, U.S.S. *Constitution* Museum, 1 Feb 1990; telephone conversation, author to Donald Turner, U.S.S. *Constitution*, 1 Feb 1990; telephone conversation, author to Tyrone Martin, Feb 1990; conversation in Philadelphia, PA author and Ben Fuller, Mystic Seaport Museum, 18 Apr 1990. The hulk of the *New Hampshire* (ca. 1815) burned and sank in Massachusetts Bay in 1922. Naval History Division, *Dictionary of Fighting Ships* 5: 56.
 204. For commonly available character die stamps, see, for example, McMaster-Carr Supply Company, *Catalog 84* (Chicago:McMaster-Carr, 1978), pp. 186-187. The National Park Service observed that many spikes had been "obviously reused," NHL. There was no evidence found indicating the Navy would directly reuse structural fasteners. A two-pound shot presumably from a battle in 1815 was reportedly found embedded in a frame, "Yankee Race Horse": 25, note 28. Pollard avoided mentioning the shot probably because it was found above the waterline in an area believed to be rebuilt in 1853. The "shot" is in LDP and appears to be made of copper.
 205. L. Vaden, "Findings of the Fore Mast" and "Findings of the Mizzen Mast," 31 Dec 1960, LDP.

206. On misleading conclusions which can be drawn based on timber and cutting marks, see Joseph Hill Torras, Jr. to Polland, 10 Feb 1975, LDP, and untitled speech delivered by William M.P. Dunne at the Ninth Annual Symposium on Southern New England Maritime History, Mystic Seaport Museum, 10-11 Nov 1989 and Dunne, "An Inquiry into H.I. Chapelle's Research in Naval History," p. 44.
207. Joseph W. Michaels, *Dating Methods in Archeology* (New York: Seminar Press, 1973); Herman J. Heikkenen, "Tree-Ring Patterns: A Key Year Technique for Crossdating," *Journal of Forestry* 82, #5 (May 1984): 302-305; Herman J. Heikkenen and Mark R. Edwards, "The Key-year Dendrochronology Technique and its Application in Dating Historic Structures in Maryland," *Association for Preservation Technology Bulletin* 15, #3 (1983): 3-25. J.J. Brenza to *Constellation* Restoration Committee, 18 and 31 Mar 1969, LDP. (A corrected version is reprinted in *CQ*, p. 142).
208. Evaluate the historical significance of figures on pp. 60, 61, 68, 74, 79, 80, 81, 82, 83, 84, in *CQ*.
209. See this report, pp. 17-20. Although we did not apply concerted effort, we were unable to establish use of the nickname "Yankee Race Horse" earlier than 1947. See The Mariners' Museum, *The United States Frigate Constitution: A Sesquicentennial Exhibition, 1797-1947. Also selected material relating to U.S.S. Constellation* (Newport News, VA: The Mariners' Museum, 1947), p. 24. Polland variously claimed the nickname was bestowed by the French and "often used" after the battle with *LaVengeance* in 1800: *CQ*, p. 118, *SNAME*, p. 17. He also said it was bestowed after battle with *L'Insurgente* in 1799 and also that Americans invented the name during her first convoy: Doran Levy to Polland, 10 July 1966, LDP. Edward Beach writes that she was called "Baltimore Race Horse" by her "proud builders and crew" and the name was changed to "Yankee Race Horse" during the Civil War. Beach's book does not reveal sources: Beach, *United States Navy*, p. 38. Contemporary ballads do not reflect a nickname, see Robert W. Nceser, ed., *American Naval Songs & Ballads* (New Haven: Yale University Press, 1938). A great admirer of the ship, Enoch Wines cruised aboard her 1829-31 and does not mention any nickname: E.C. Wines, *Two Years and a Half in the Navy*. There was conflicting information about the frigate *Constellation*'s claimed superior sailing qualities because several sources indicated a considerable number of contemporary vessels were better noted: G.F. Emmons, *Navy of the United States, from the Commencement, 1775 to 1853...* (Washington: Gideon & Co., 1853) pp. 88, 90, 94; Howard I. Chapelle, *The Search for Speed Under Sail, 1700-1855* (New York: W.W. Norton, 1967), p. 257 and K. Jack Bauer, *Ships of the Navy 1775-1969*, I (Troy, N.Y.: Rensselaer Polytechnic Institute, 1969), pp. 13-17. Nevertheless, Wines said, "She sails well with any wind, but in beating she goes ahead of any thing I have ever seen afloat." 1:32. In 1798 Thomas Truxtun had promised *Constellation* could outsail both *Constitution* and *United States*, *CQ*, p. 100. It is likely that her speed varied with fitness but both areas merit further study.

210. John Lyman, book review, *The American Neptune* 32 (1972): 72.
211. Mark Jones, ed., *Fake? The Art of Deception* (Berkeley: University of California Press, 1990), p. 13. For an example of similar devotion to saving a ship, see John Culhane, "The Man Who Bought an Aircraft Carrier," *Readers' Digest* (Apr 1990): 116-121. While reliance on fakery is relatively rare in American historiography, it has been more significant in the field of archeology. The widespread and longstanding acceptance of the Piltdown Man is a good recent case. On blind devotion to confirming one's beliefs, see for example, Heinrich Schliemann's search for Troy in Leo Devel, *Memoirs of Heinrich Schliemann* (New York: Harper & Row, 1977), pp. 1-17, 282-285, 309-349 and Michael Wood, *In Search of the Trojan War* (London: British Broadcast Corp., 1985), pp. 52-62. A fascinating early parallel to the *Constellation* forgeries is the story of James Addison Reavis (? - 1908), an American who was convicted in 1895 of forgery and fraud. Reavis forged land grant documents and planted them in Mexican and Spanish archives. He was able to claim 10.8 million acres of Arizona and demand fees from the territory's inhabitants for a decade before his documentation could be proven spurious by scientific examination. See Jay Robert Nash, *Bloodletters and Badmen* 1, (New York: Warner Books, 1975): 318-322.
212. For the reviewer's and general public's inability to understand *CQ*, see for example, book review by R.P. Smyers, *Warship International* 8, #3 (30 Sep 1971): 239-240 and Ralph T. Ward to Polland with draft book review, 30 Aug 1971, LDP. An excellent indication of confusion, even by interested and relatively knowledgeable persons is Thomas A. Todd, "USF *Constellation* As She May Have Appeared in the Period 1797 to 1800," *Nautical Research Journal* 31, #2 (June 1985): 55-67. Schuyler N. Pyne to F. Kent Loomis, 26 Apr 1970, NHC-SH.
213. The statement that Chapelle never visited the ship is made by Polland in *CQ*, p. 73. This misconception is repeated as recently as 1989, see William M.P. Dunne, "An Inquiry Into H.I. Chapelle's Research in Naval History," 44 and William M.P. Dunne, untitled article about Chapelle's unworthy status as demigod in *Sea Heritage News* 19 (1986):N.p. In both cases Dunne fails to attribute the source. When the *Constellation* was at Newport it was within Chapelle's territory during the Historic American Merchant Marine Survey: JoAnn King, *Howard Chapelle*, pp. 82, 86; Frank A. Taylor, "The Historic American Merchant Marine Survey," *The American Neptune* 1 (1941): 63-79.
214. "Milk-toast" is from Chapelle to Baker, 29 Feb 1968, box 4, RU-239, SIA; "Fanatics" is from Chapelle to Lundeborg, 2 Oct 1969, box 4, RU-7228, SIA. William P. Bass, "Who Did Design the First U.S. Frigate?": 49-54.
215. *CQ*, p. 15-16. On later cases of building ships with repair appropriations, see Leonard Alexander Swann, Jr., *John Roach: Maritime Entrepreneur* (Annapolis: Naval Institute, 1965), pp. 142-145. Donald Stewart, "Archives of the United States...Subject, Material issued to 'CONSTELLATION' Copied April 3 thru April 12, 1958," LDP. It is interesting to note that this early-found and important document was ignored by the Committee in publications. The full 135-page

document is known to have been in Committee files in 1965. Chapelle to Lyman, 15 Sep 1971, folder 815, JLP.

216. Meade/Davis was cited in 1962 in *Frigate E*, pp. 160–161 but did not appear in 1966 in SNAME. Polland avoided the matter in *CQ*. As late as a few months before his debilitating stroke in December 1980, Leon Polland still publicly denounced Chapelle, who had died five years before. Polland said, "...his (Chapelle's) loyal followers still enjoy the satisfaction of dropping the bomb each time the ship is publicized. This is known as proliferating thru eternity." For this and his unchanging views, see speech script, "Restoration of the Frigate Constellation," presented to the University of Baltimore, 2 Nov 1979, and notes for untitled speech presented at the University of Baltimore, 10 Oct 1980, LDP.
217. For doubts the four authors of "Yankee Race Horse" had about the Capps Report, see that article, footnote 35, p. 24. Polland to Edwin H. Auerbach, Jr., 19 Dec 1968; to Francis E. Clark, 20 May 1971, LDP. For Polland's doubts about other documentation, see construction note, 19 Apr 1975 (trailboards) and 26 Feb 1972 (air ports); 5" x 7" annotated file cards; Polland to G.W. Tetreault, 24 Feb 1969, LDP. He later abandoned a never-located "1854 Inspection Report" cited in "Yankee Race Horse": 29, footnote 36, *Frigate E*, p. 162 and SNAME, pp. 95–96.
218. International Sail "Communication No. 1," Mar 1968, LDP. "Library mechanic" is from *CQ*, p. 141.
219. Polland's correspondence does not indicate contact with William A. Baker, Marion Brewington, Karl Kortum, Merritt Edson, Jr., Howard Hoffman, Clyde M. Leavitt, or a number of other persons who might have been helpful and supportive. Leavitt, involved in the tough job of conserving the Civil War gunboat *Cairo*, wrote to Polland and complained about anachronisms in the restored *Constellation*. He said, "...but (I) do not believe I want to be associated with what is being done to Constellation." Leavitt to Polland, 15 June 1973, LDP.

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INDEX OF SHORT CITATIONS

Capps Report	"The Major Battle Damage, Repairs, and Reconstruction to U.S. Ship 'Constellation' 1797-1855. Prepared by the Bureau of Construction and Repair - USN by Rear Admiral Washington L. Capps, Chief of the Bureau, at the direction of Hon. Truman H. Newberry, Assistant Secretary of the Navy." ca. 1905 - 1908. Copies located in Leon D. Polland Papers and <i>Constellation</i> file, Ships History Branch, Naval Historical Center.
CQ	Chapelle, Howard I. and Polland, Leon D. <i>The Constellation Question</i> . Washington: Smithsonian Institution Press, 1970.
DMH-SI	<i>Constellation</i> correspondence file. Naval History Branch, Division of Military History, Museum of American History, Smithsonian Institution.
DTRC	<i>Constellation</i> project files. Curator of Ship Models, David Taylor Research Center, Bethesda, MD.
Frigate E	Polland, Leon D. <i>Frigate E - Constellation</i> . Mimeographed. N.p.: 1962.
Gosport Log	Record Group 71: Records of the Bureau of Yards and Docks. Entry 91: "Journal of Daily Transactions at Navy Yards." Gosport yard logs. National Archives and Records Administration.
JLP	John Lyman Papers. National Maritime Museum, San Francisco, CA.
LFC-LC	Leonard F. Cushing Papers. Naval Historical Foundation, Manuscript Division, Library of Congress.
LDP	Leon D. Polland Papers. Privately held.
Minutebook	Record Group 19: Records of the Bureau of Ships. Entry 60-A: "Minutebook of the Bureau of Construction and Equipment," National Archives and Records Administration.
MHS	<i>Constellation</i> file. Library, Maryland Historical Society, Baltimore, Maryland.
NHC-SH	Ships history file, USS <i>Constellation</i> . Naval Historical Center, Ships History Branch, Washington, DC.
NHC-OA	Naval Historical Center, Operational Archives biographical files, Washington, DC.
NHC-OA-ZC	<i>Constellation</i> ZC file. Naval Historical Center, Operational Archives, Washington, DC.
NHL	<i>Constellation</i> file, National Historic Landmarks Office, National Park Service, Department of the Interior, Washington, DC.

PNSYM	Marshall W. Butt Library, Portsmouth Naval Shipyard Museum, Portsmouth, VA.
RG-19, E-126 NARA	Record Group 19: Records of the Bureau of Ships. Entry 126: "Plans of Ships and Shore Establishments." National Archives and Records Administration.
RG-45, E-374, NARA	Record Group 45: Naval Records and Library. Entry 374: "War Department Letterbook on Naval Affairs." National Archives on Records Administration.
RU-239, SIA	Record Unit 239: National Museum of American History. Division of Transportation Records, circa 1927 - 1973. Smithsonian Institution Archives.
RU-7228, SIA	Record Unit 7228: Howard I. Chapelle Papers, 1969-1975, Smithsonian Institution Archives.
SNAME	Polland, Leon D. <i>The Frigate "Constellation": An Outline of the Present Restoration</i> . 2nd ed. N.p.: 19 June 1968.
"Yankee Race Horse"	Scarlett, Charles, Jr.; Polland, Leon; Schneid, John; Stewart, Donald. "Yankee Race Horse: The USS Constellation," <i>Maryland Historical Magazine</i> 56, #1 (Mar 1961): 15-38.

APPENDIX A

CONSTELLATION EVIDENCE AND WARSHIP DESIGN AN ESSAY

BY
COLAN RATLIFF

BACKGROUND

The purpose of this essay is to report on an examination made that compared *Constellation's* nineteenth century naval architectural documentation with several naval construction treatises written in the mid-nineteenth century.

The examination concluded that all of the available genuine evidence is fully consistent with the design process applied to new warship construction. It was very unlikely that David Stodder redesigned the frigate *Constellation* of 1797. The sloop of 1855 was not, in any significant way, a conversion of the frigate of 1797.

INTRODUCTION

As the U.S. Navy entered the 1850's it was confronted with protecting a burgeoning maritime empire. 1851 was the *annus mirabilis* when a large amount of global trade was carried in the holds of American merchant ships and the Navy was playing a bigger role in the commercial and diplomatic worlds abroad.¹

By the 1850's wooden ship building in the U.S. had in several respects surpassed that in Europe. Fast American ships capable of carrying expensive cargoes were voyaging to the far corners of the world, setting some records that, to this day, still stand. In this decade builders like Samuel H. Pook were turning out of their yards ships such as *Herald of the Morning*, *Red Jacket*, *Dreadnaught*, and *Eagle Wing*. William Webb had built *Fly-Away* and *Young America*. Donald McKay had *Great Republic* and *Romance of the Seas*. However, when the decade began most of the Navy's sailing ships were old, inefficient and technologically backward. The introduction of steam power and explosive ordnance was strongly influencing the world's ship designs. While Congress was debating the Navy's future, the Navy was struggling to maintain and modernize the sailing ships it had. Congress was reluctant to fund new ships but they did allocate money for maintenance and modernization.²

The Navy was suffering under manpower constraints and the advent of the new shell gun minimized the need for ships with two or more gun decks and crews for large numbers of weapons. By razeing ships-of-the-line to frigates, and frigates to sloops, warships required less manpower to operate. The Navy had, over the previous decades, stockpiled much prized live oak timber. With Congressional funds and the wood stockpiled in the yards chief Naval Constructor John Lenthall began rebuilding many of the Navy's old ships, replacing them with modern ships capable of carrying new shell guns. At the Washington Navy Yard Lenthall began making plans to modernize the *Constellation*, *Cumberland*, *Sabine*, *Santee*, and *Independence*. The *Cumberland* and *Independence* were razed and *Santee* and *Sabine* were lengthened and redesigned into more modern

warships: all capable of carrying shell guns. By 1853 the old frigate *Constellation* was surveyed and found to be in such poor condition that it was decided to replace her with a new vessel.³ By replacing the *Constellation* with a new ship the Navy could preserve the same number of ships in the fleet, reduce immediate repair costs, and actually decrease its manpower requirements for that one ship.

TECHNICAL TREATISES OF THE PERIOD

By studying the shipbuilding treatises written by marine and naval architects of the time, we can better understand the evidence which today exists documenting the design of the *Constellation* in 1853. Some architect's theories and the step-by-step process of ship building were carefully recorded in published treatises during the mid-nineteenth century and it is these that can help clarify the question of the two *Constellations*. The four major treatises that were studied were:

1. John W. Griffiths, *Treatise on Marine and Naval Architecture*..., 1854.
2. Richard W. Meade, *A Treatise on Naval Architecture*..., 1869.
3. Lachlen McKay, *Practical Ship Builder*, 1839.
4. Theodore D. Wilson, *An Outline of Shipbuilding*..., 1878

Careful study of each treatise bore some interesting and often overlooked facts. We were reminded how meticulous was the process of designing and building a wooden ship. It was considered a true science and art during that time and incorporated the highest degree of all the known sciences (mathematics, geometry, chemistry, physics, etc.). Shipbuilding, as a science, is governed with careful laws and formulas which are used to obtain specific results. All four treatises agreed, with small variation, on the rigid steps necessary to conceive, design and build ships.⁴

Step 1: The Purpose of Design

The first requirement the treatises emphasized was the purpose of the ship. Was it a warship carrying guns or a cargo ship carrying trade? How many guns would there be? Or how much cargo would the ship carry? The naval or marine architect determined the length and breadth necessary to fulfill the requirements. The architects may have referenced half models and existing drawings of similar type vessels to begin formulating what shape the design should take.⁵ Each treatise then explained the steps necessary to obtain a half-model and drawing. While all went through the same steps, the order of the steps changed from treatise to treatise. R.W. Meade in his treatise stated, "Many builders made a rough drawing first and constructed a model from it; this is much better than forming the model by eye."⁶

Step 2: The Preliminary Draft

The architect would develop a preliminary scale drawing or draft that would set a box into which the new design would fit. He would set the distance between perpendiculars and the extreme beam. This box was then sub-divided from the bottom ("baseline") upward in scale two-foot increments (or increments of the architect's choice) to represent waterlines. Converting the box to a three view drawing (sheer, half-breadth and body sections) the architect established a grid that his new design would fit into. The three-view drawing also gave the architect the sizes of the wooden boards ("lifts") necessary to create a half model.⁷

Reliance upon and refinement of the preliminary drawing by naval architects was very important. Having determined the length and breadth of the vessel and how many guns and weight it would carry, the architect could then make calculations and studies for the two critical factors in a ship's design: stability and displacement. Treatises fill chapter after chapter with methods on how to obtain these two factors using drawings. The naval architect then may have made other drawings showing construction details, such as frame spacing, cants, dead wood placement and other design features that had direct bearing on figuring the total displacement and stability of his design.⁸

Step 3: The Half Model

Using the preliminary drawing as a guide, lifts were prepared, usually pine and/or cedar, that recreated the box of the drawing in three dimensional wooden form. Utilizing the preliminary drawing, the naval architect cut away at the box until he achieved the smooth ("fair") hull form based upon his calculations and eye. We found there were subtle differences in the treatises on reaching the final form. Griffiths employed the half model earlier in the calculation phase, while Meade and Wilson utilized it later. All agreed on having a half model and draft based upon careful study of stability and displacement before going to the next step: the mould loft process. By this point all critical elements of the design (center of effort, center of buoyancy, etc.) had been carefully calculated and a sail plan had been generated to satisfy the requirements.⁹

Step 4: The Mould Loft

Then the plan and the model were turned over to the men in the mould loft. It was the responsibility of the constructor to accept the design of the naval architect, usually in the form of a drawing and half model, and produce a full-sized ship. The process of enlarging the design was accomplished in the mould loft. This was a large, open space with a flat floor that enabled the loftsmen to draw, full size, the design supplied by the architect. This meticulous enlargement process proved out the architect's hull form. The constructor, at all times, carefully checked and double-checked the fairness of the design. The loftsmen carefully measured the full-size drawing on the mould loft floor and recorded the measurements on paper. This record ("table of offsets") determined the exact shape of the hull (inside of planking, outside of frames), down to 1/8" accuracy. The measurements were usually grouped in threes. The first number feet; second, inches; third, fractions of inches or eighths of inches. With the exact shape of the hull recorded on paper the offsets could then be returned to the architect for his approval or modification. After the constructor was satisfied with the faired, full-sized drawing, he proceeded to prepare templates ("moulds") of the individual wooden parts of the ship.¹⁰

Step 5: Moulds

Wooden moulds were made of every square frame, cant frame, breast hook, etc. Meanwhile, a building slip or ship house was prepared and in some cases the moulds were sent to the storage areas to help select wood to be brought to the building site. The constructor could now begin to lay the keel and erect the skeletal structure of the frames: all the while using the moulds and the table of offsets to guide him to reproduce the naval architect's original design. Further, there was no reason that cutting frames could not have begun before the keel was laid. After the ship was finished, changes that were made in the structure were noted and a draft of record was prepared showing the final form of the

vessel. It is very important to understand that no significant changes were made in the architect's designed shape. As a subordinate the constructor changed only what he felt would best carry out the architect's design. The design, mould loft process, plus the building of the ship demonstrate the careful and structured business of planning and constructing wooden ships.¹¹

THE RAZEE

Some have believed that because the *Constellation* of today was (infrequently) called a "raze" the present vessel is a truncated remainder of the frigate of 1797. The term "rebuilding" of a ship could, we learned, be applied to an existing, or even new ship and one form of rebuilding was to "raze". To define this term, we chose to compare the USS *Macedonian* to the old frigate *Constellation*. The *Macedonian* started life as a spar deck frigate (two gun decks topped with a spar deck) and between 1849 and 1852 was rebuilt to a spar deck sloop (one gun deck) and called a "raze."¹²

We know the *Macedonian* was unable to carry her designed armament. Over a period of years, the frigate's guns were landed to help reduce her apparent rolling motion. This may have been due in part to insufficient tumble-home forward and a poor riding moment because of her high center of gravity. Eventually all the *Macedonian's* upper guns were landed making her, in essence, a sloop. In 1849 she was brought in to be structurally turned into a spar deck sloop and her original upper spar and gun decks were removed. A new, lighter spar deck was constructed over her new single gun deck. This greatly reduced her top hamper by lowering the center of gravity and improved her riding moment. She was then termed a sloop of war, having been physically razed from an existing frigate.¹³

The *Cumberland* and *Independence* were treated in a like manner and razed. They had their lines taken off later. Taking off lines involved measuring the real ship and reducing the shape to a drawing: essentially the mould loft process in reverse. Taking off the lines of the *Cumberland* and *Independence* indicated that a portion of the design process was re-employed on those ships. The regenerated lines were used to make plans to recalculate their centers of gravity and their centers of effort for new sail plans. A sail plan drawing of the USS *Independence* is an important example. The drawing was done under the direction of naval constructor Samuel Pook and shows before and after calculations and sail plans of a ship that had been altered in some way, ie: lengthened or razed.¹⁴

There were additional reasons for razeeing a multi gun-decked warship during this period. The *Macedonian* was physically razed because her very sharp hull was unable to stably support her upper gun deck. The *Cumberland* and *Independence* were examples of ships structurally razed for economics because they required a smaller crew. The shell gun which started to come into service in the early 1850's was a much heavier piece capable of doing greater damage over a much longer distance than previous models.¹⁵

Due to the increased weight of shell guns new ships were designed specifically to carry them and some old frigates which were not structurally razed, nevertheless, had all their upper guns removed to allow for the greater weight of the shell guns installed on the lower gun deck. *Constitution* and *Congress* were treated in this manner.¹⁶ They could be characterized as being "razed", though technically their structure had not been altered. Besides existing vessels structurally razed and those razed while under construction

were those like the *Constellation*, which were administratively razeeed. In these cases the term was sometimes used as a comparative: the new sloop *Constellation* was a "razeed" (i.e. had one less gun deck) in comparison to the old frigate *Constellation*

It suffices to say that it was apparent to us that the term "razeed" meant simply "to reduce in rate" – regardless of whether the reduction was affected by removing guns, cutting down hulls, changing hulls under construction, or was merely a change downward in rating category. In period literature, the context must be understood when the word "razeed" appears.

It was clear that the design of the *Constellation* in 1795 could not have been left to the local constructor in Baltimore, David Stodder, and that conversion of a half-century old frigate to a sloop in 1853 could not have been a casual, uncalculated yard job.

EVIDENCE EXAMINED

THE *CONSTELLATION* HALF MODEL

The *Constellation* half model was first brought to our attention in March 1989 while visiting Robert Sumrall, the Curator of Ship Models at the Naval Academy in Annapolis. While there we removed the half model from its backboard and believed it required further study (see Fig. 3). The model was transferred to the David Taylor Research Center (DTRC) where the curator, Dana Wegner and I examined the model under ultra-violet light and it was apparent that the model had been untouched since its last painting.

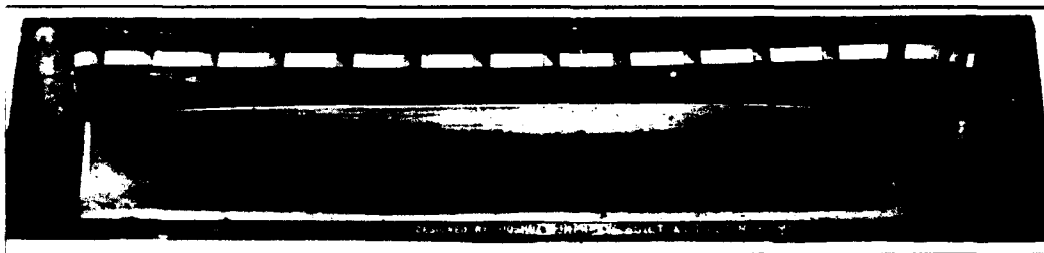


Fig. 3. Builder's half model of sloop-of-war *Constellation*, 1853. Condition as found. David Taylor Research Center.

We recognized that to better understand the model we needed to place it in the context of nineteenth century American warship design practice. We began our examination of the four treatises. All the treatises emphasized the importance of the builders half model and gave lengthy descriptions of how it was to be shaped, formed and drawn. Meade and Griffiths mentioned the use of half models as design aids as early as the 1790's. The earliest identified half model in the U.S. Navy's collection is the ship-of-the-line *Pennsylvania*, dating from about 1820. This rare model was built in the "hawk's nest" fashion using body lines rather than water lines. Of the 230 half models in the Navy collection, the majority are waterline (lift) construction.¹⁷ Dating between about 1820 and 1870, they are usually mounted on backboards which may vary from plain to highly decorative. The models were frequently painted black above the waterline with

white stripes designating gun decks. Below the waterline they were sometimes left natural wood or painted to simulate copper sheathing. Painting the backboard and the half model was done after the model was used by the architect and constructor to design and build the actual ship. The model was retained at first as a reference tool and then as a decorative souvenir.

A number of questions faced us. Was the *Constellation* backboard original to the half model? Was the half model altered in any way? In what scale was the model built? We felt our first steps would be to scientifically study the model and then disassemble it to take the lines from it in order to compare the shape of the artifact with archival drawings of the real ship.

Before we could safely disassemble the model we had to determine how it was fastened together. The half model was originally held together only by three wooden keys. These three keys were removed, revealing additional fastenings utilized to hold the model together. On May 11, 1989 six x-rays were taken of the model. These showed dozens of various sized cut nails driven into the lifts and holding the model together. Also one large wood screw was seen at the stern.

We next studied the backboard to determine if it was the original and if it had been repainted at any time. We turned to the laboratory of National Gallery of Art and in June 1989, Chief Ross Merrill and staff member Kristin Casaletto were invited to the David Taylor Research Center to examine the half model and backboard. Preliminary observations indicated the backboard had three visible lettering densities which suggested the lettering was not done at once but added piece-meal over a period of time. Mr. Merrill felt that the model should be brought to their laboratory at the National Gallery. On June 30, 1989, in preparation for the visit to the National Gallery, the decorative stern post, keel and stern were removed from the backboard. Pencil lines mimicking lift lines were evident beneath them on the backboard. The purpose of these rough lines appeared to be to successfully locate mounting screws. July 6, 1989, the model was turned over to the National Gallery of Art where various studies were conducted. Results were as follows.

1. *Paint analysis by Lisa Glinsman* (conservation scientist) concluded that model could have been painted at any time between 1795 and the twentieth century since the suggested pigments could have been used during that span of time.
2. Half-model and backing board infrared and x-ray examination done by Kristin Casaletto (conservation technician) concluded:
 - a. backboard appeared to have been painted twice in its antiquity with the second coat being applied later and with block style lettering.
 - b. The word "Constellation" in an older style of lettering was applied to the first layer of paint.
3. *Wood analysis of backing board and half model* conducted by Michael R. Palmer (conservation scientist) concluded that both backing board and half model were made of soft pine and anatomical features yielded by the samples did not allow for critical distinction among the three possible species.¹⁸

After these detailed studies, the half model's paint was chemically removed at DTRC in preparation for disassembly. Each lift was carefully removed by inserting wooden and metal shims to pry them apart. We noticed that the lifts were not glued, only nailed. We consulted the x-rays to determine the location of the nails. All the metal fastenings were carefully removed from each lift and saved for study. We concluded that the half-model had not been disassembled since nailing. After the entire model was disassembled a careful examination was done of each lift. One lift bore the name "Constellation" (*sic*) written with a paint brush in light stain. We then contacted the DTRC photo lab to take detailed photos of the disassembled model, carefully labeling all pieces.

We determined the half model was built to 3' = 1" scale. This compared identically to the 1855 draft of the *Constellation* and the tables of offsets found at the National Archives. Each lift was traced and a drawing was done conforming to descriptions contained in the treatises (see Fig. 4). The new drawing was overlaid on the original 1855 draft and proved identical except for near the bow and the stern where it appeared that the lines were re-faired inward to accommodate the thickness of the planks.¹⁹ The lifts remarkably matched each water line and the frame stations.

ARCHIVAL DRAWINGS OF CONSTELLATION

Dozens of drawings of the *Constellation* exist covering the period from 1795–1975 (see Table of Drawings). A careful study of the drawings was done to fully understand the progressive history of the two ships. Particular attention was paid to the early drafts and we included other ships in our study so as to compare features peculiar to a given period or class of ships. The drafting of ships was an art which changed with the times. Improvements were made, styles changed and new drafting instruments were introduced.²⁰ By understanding these improvements we can better identify drawings when presented with conflicting images and lack of dates. Great care must be used in interpreting which draft is the most appropriate. Studying the drafts at the National Archives over an extended period, the researcher can begin to sort these drafts and put them in the appropriate place in the ship's history.

Occasionally we came across drawings which did not fit in the proper place. Early drafts were used over and over again with new information appended. Appended material may have represented proposed changes that may or may not have taken place. But for the *Constellation* some of these additions proved to have been likely forged or altered to support or even obscure a design feature.

DRAWING PAPER

Drawing paper can be used as evidence in determining when drawings were made. From the period preceding the American Revolution and to the Civil War there had been only one principal paper manufacturer utilized for ship's drafts in the Navy. This firm, J. Whatman, produced paper first in England and then later in the United States.²¹

J. Whatman concealed a watermark or countermark in all of its large drawing papers and this frequently enabled us to determine the year the paper was manufactured. From paper, in more recent years drafts were recorded on linen and from linen we have gone to Mylar. Most can give indications on when a drawing was done if not by watermarks, then by scientific analysis.

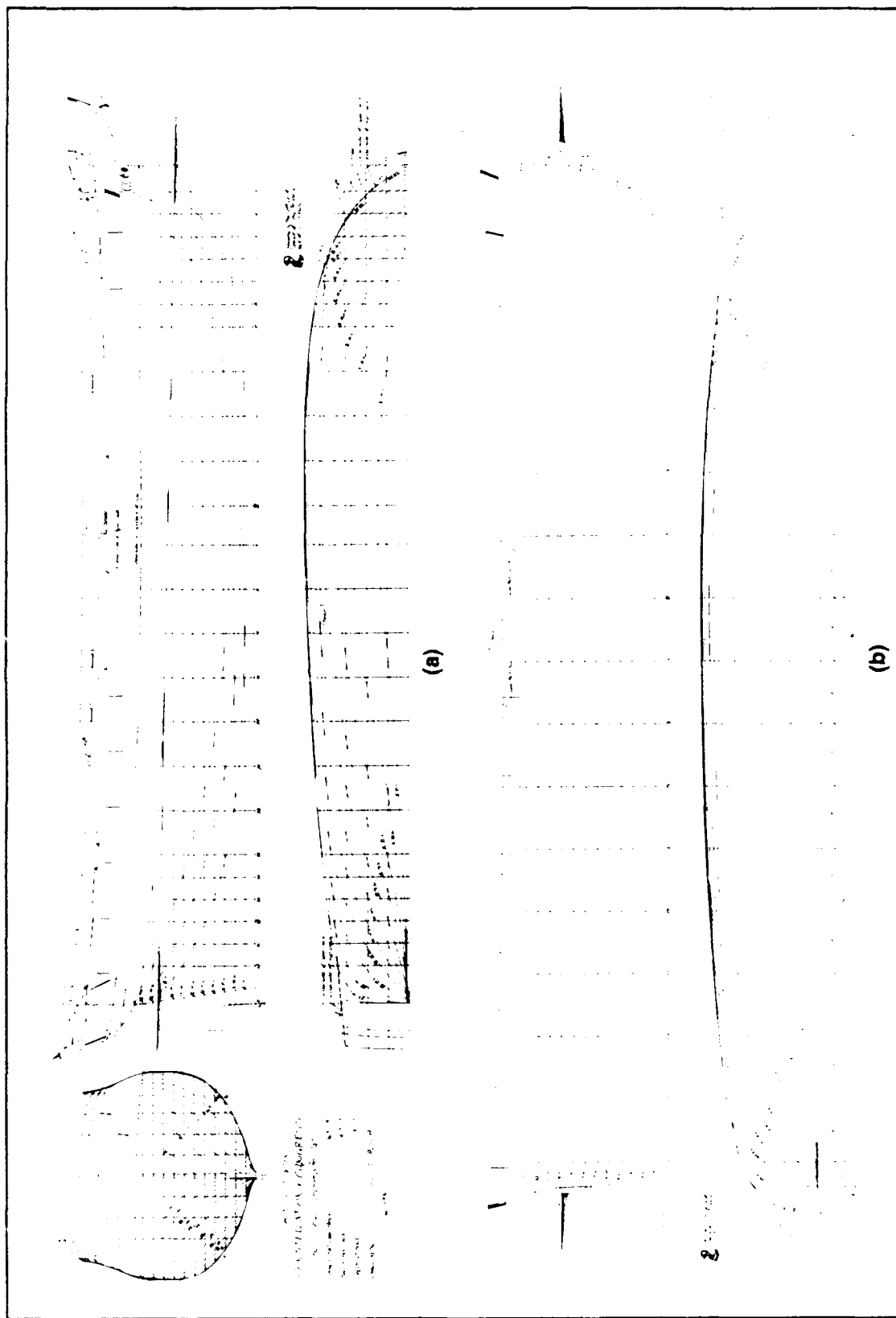


Fig. 4. Lines (a) to Frigates *Congress* and *Constellation* of 1795 as modified by Colan Ratliff, 1990; and lines (b) taken from the builders' half model of sloop-of-war *Constellation* (1853) by Colan Ratliff, 1990. David Taylor Research Center.

SCALE

Drafting scales widely varied during this period. Today American naval architects principally rely on 1/4" = 1' scale or a derivative and even computer-generated scales based on the decimal or metric system. Nineteenth century designers relied on scales including 6', 5', 4', 3', and 1' = 1" to make their drawings and half models. Until 1815 the measured yard in America was only a close approximation of the British yard. It was not until 1838 that standard yard measured bars were issued by the Federal government to the states. It can be generally presumed that the "yard" and the "inch" before 1838 must have varied greatly. Naval architects had to rely on commercial manufactured divided scales and hoped they were accurate. This made for the wide disparity in scales and accuracy within those scales. For example, of two drafts we know exist of the *Congress* and *Constellation*, neither conform to modern measurements. Inconsistencies must have been apparent to early naval architects because in most finalized ships drafts a bar scale was reproduced.²² It usually appeared between the sheer and half breadths on the draft. It was a record of the scale that was used to make the drawing. Howard Chapelle, noted naval architectural historian, was aware of this and re-drafted many historical drawings using modern scales, not only for beauty but for serious study and so that comparisons to other drafts could be made.

CONSTELLATION STERN

The Baltimore Committee in 1955 received the *Constellation* with a rounded stern. Most naval architectural historians would say that such a configuration was typical of mid-nineteenth century designs. The National Archives supposedly held three drawings that led Leon Pollard to believe that a rounded stern existed on *Constellation* prior to 1853, thus confirming the integrity of the ship throughout the rebuilding period 1853-55. The first of the three drawings was dated August 1852. It showed the gun decks of the old frigate *Constitution* and the newer frigates *Raritan* and *Congress*. The word "Constellation" was added in ink above "Congress". The frigate *Constitution* by 1852 remained, in hull form, the way she was built in the 1790's and retained her original square stern. The frigate *Raritan* was built in 1820, and frigate *Congress* was totally rebuilt in 1839. When studying this drawing, two things stood out. First the apparent purpose of the drawing was to measure the three ships for the installation of guns. These guns could have been shell guns because the required clearances were similar for all three ships. Second, was the observable nature of the sterns. In the drawing, *Constitution* had a square stern while *Raritan* and *Congress* showed the elliptical design which came into fashion in the 1820's. The *Constellation*'s gun deck was not the same as *Congress* in 1852. It was clear that the name "Constellation" added to this drawing was incorrect.²³

The actual curvature of the elliptical stern was really not much different than the square stern except the corners were rounded. Both sterns looked the same on paper except in the sheer plan the fashion piece had to bend abruptly to cover the quarter galleries. The elliptical stern had been introduced in British design by Sir William Symonds in 1827, perhaps a few years after it was employed in America. But in America by 1850 the elliptical shape was becoming more rounded in form. This was done more for structural reasons than for style. More cant frames were being employed forming a rounder, stronger stern structure. The stern of the 1853 sloop *Constellation* employed the rounded steamboat stern construction of the steam frigates started in 1855.²⁴

Chronologically, the rounded stern actually appeared first. It was introduced by Sir Robert Seppings, a surveyor of the Royal Navy, who introduced it into the British service in 1817-19. While the rounded stern came first in Britain, it came last in the U.S. Navy. When submerged propellers were introduced in conjunction with steam warships, the U.S. adopted the rounded stern in order to strengthen the aft portion of the ship with cant frames to allow the prop to be brought up into a sturdy well in the stern when the ship was under sail.²⁵

The second of three drawings Polland used was the mizzen mast survey of *Constellation* 1840 (or 1829). No one has been able to locate the original and we relied on a copy from the Polland papers.²⁶ One's first impression when looking at the drawing was that the ship had an elliptical stern. This is enhanced by the letters "C O N S T" inside on the counter. But from a draftsman's point of view it clearly showed a square stern. By looking at Fig. 5 of the *Macedonian*, one can see the elliptical stern from a draftsman's point of view and by comparing the two drawings one can see the difference in the two fashion boards that cover the quarter galleries.

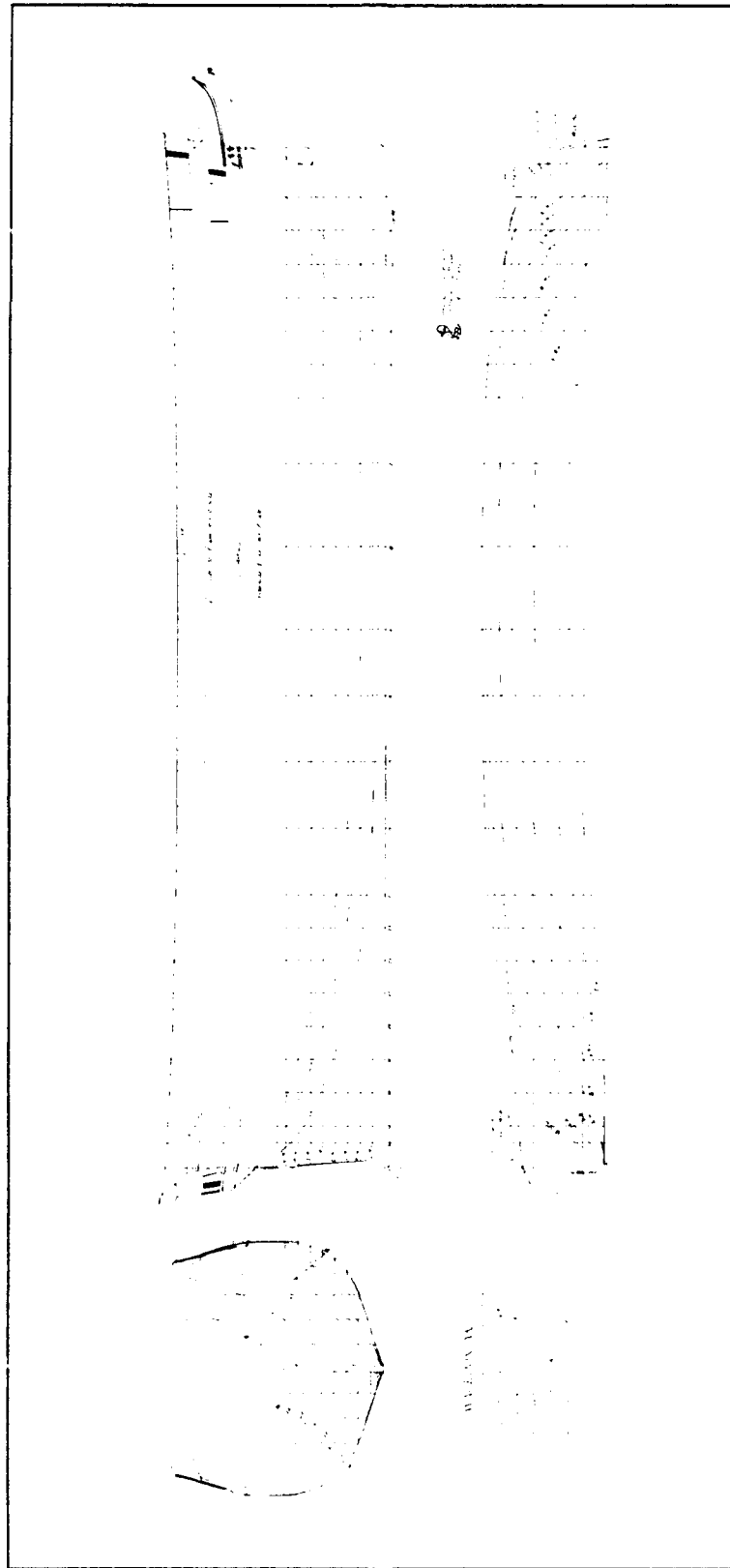


Fig. 5. Lines to U.S. Frigate *Macedonian*. As modified by Colan Ratliff.



Fig. 6. Elliptical stern of model for USS *Vincennes*.
David Taylor Research Center (DTRC).

The photo of the stern of a model of USS *Vincennes* (Fig. 6) also shows an elliptical stern. It appeared that much of the reconstruction of the stern of the present *Constellation* was based upon the misreading of this drawing. Indeed, is the drawing genuine?

The third drawing supporting the rounded stern contention was the most interesting of the three. It showed the stern of the frigate *Congress* (Fig. 7). This drawing was done in ink with "Constellation" and "1812" penciled in; a date even Pollard questioned. The drawing showed the stern of *Congress* with the fashion board spreading over the transom and quarter galleries. The nature of the draft indicated an elliptical stern and if this was so, the "1812" date and "Constellation" written in pencil would have to be questioned because the elliptical form was not used that early.²⁷ Clearly more study was needed to determine the contradiction between the apparent elliptical stern and the date "1812." We found the paper was manufactured by Whatman in 1858. The date and Whatman name were readily visible when lit from behind. Clearly the drawing was made after 1858, well after the rebuilding of *Congress* in 1839 and after the sloop-of-war *Constellation* was finished in 1855. It was apparent that the purpose of the third drawing was to show how the fashion board would fit across *Congress*' post-1839 elliptical stern. The forger

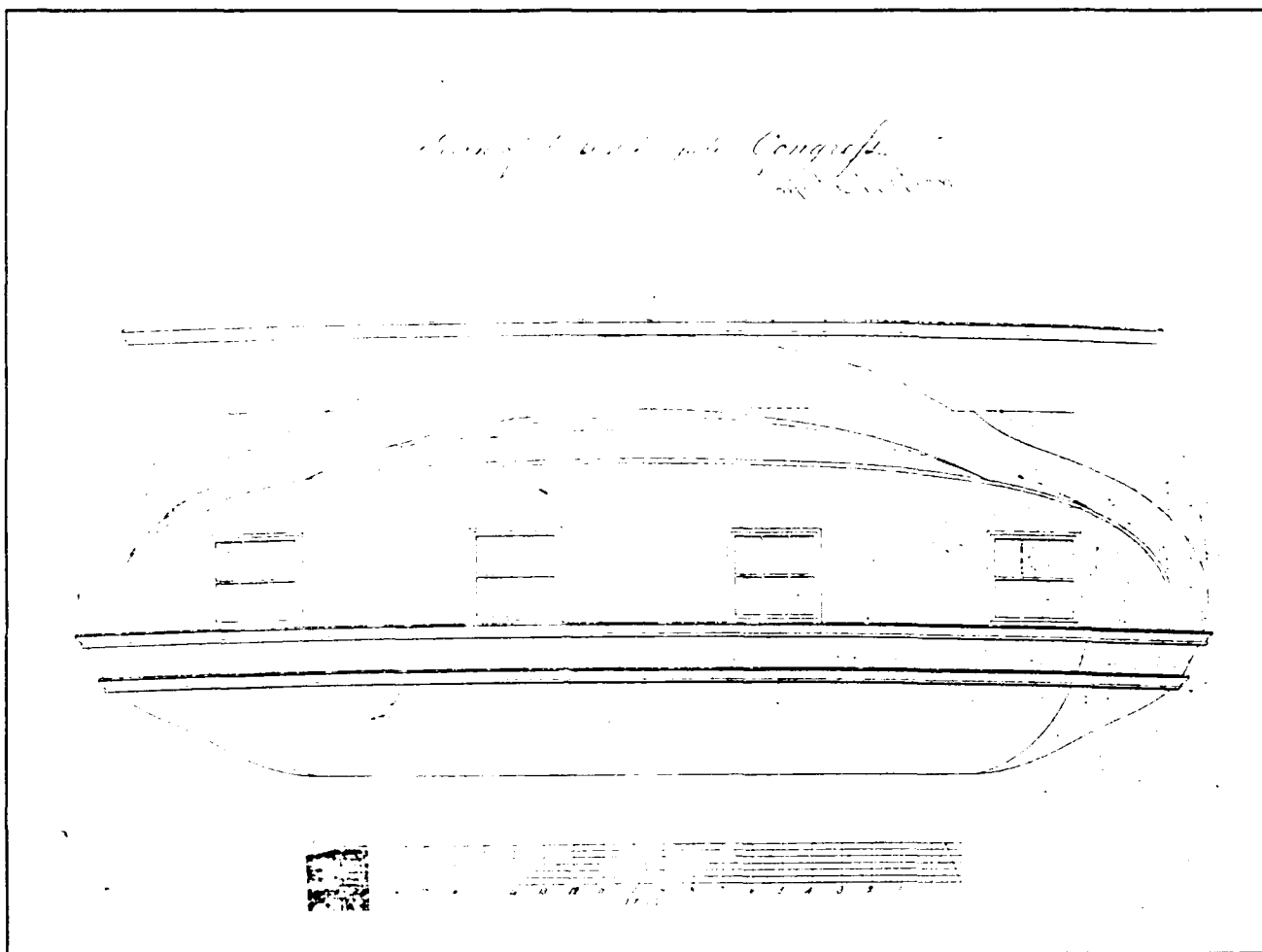


Fig. 7. Stern of U.S. Frigate *Congress*, post-1858. RG-19, E-126, 40-10-9F, National Archives.

probably tried to justify the current rounded stern by adding names and dates that show the frigate *Constellation* had a rounded or elliptical stern as early as 1812.

Building treatises indicated that if the structurally significant rounded stern was added to an existing structure, the mould loft process would have recorded it. No such record has come to light during the history of the *Constellation* controversy. There is no valid evidence that the structurally rounded stern was ever employed on any American warship including the *Constellation* as early as 1829. The present stern structure is entirely consistent with the 1853 period.

NEW COMPARISONS

To better interpret all the *Constellation* drawings, (see table) new comparative drawings were made representing other contemporary ships to help better understand the differences in the designs. Utilizing a standard $1/4'' = 1'$ scale, new drafts were

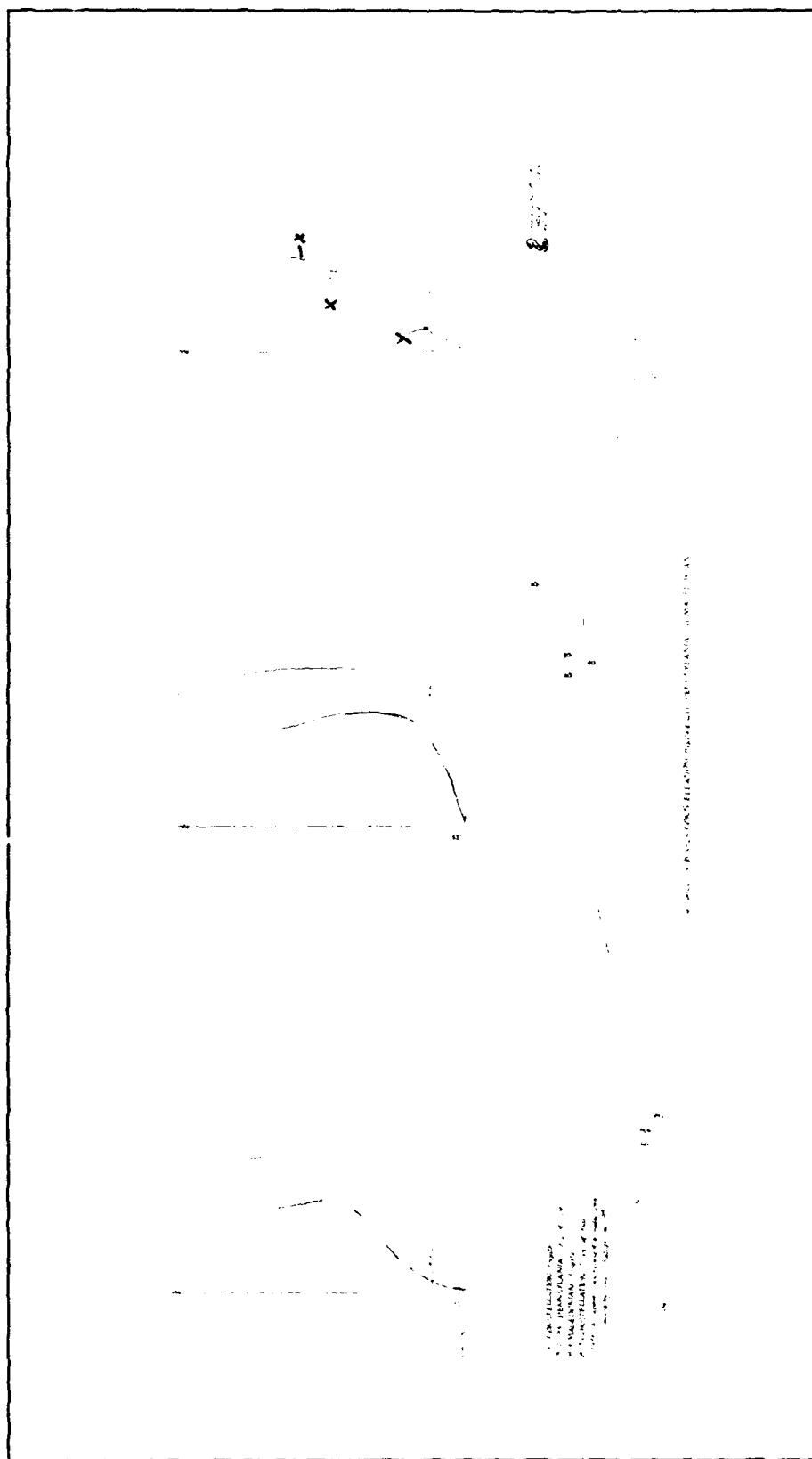
created of the frigate *Constellation* (1795), Fig. 4a; sloop-of-war *Constellation* (1853), Fig. 4b; frigate *Macedonian* (1829), Fig. 5; and ship-of-the-line *Pennsylvania* (1822-37). The ship-of-the-line *Pennsylvania* was chosen because it was one of the largest wooden warships that the U.S. ever constructed. The *Macedonian* was chosen because it was an example of a fast clipper frigate that was built in the time between the first and second *Constellations*. Though considered a clipper frigate and a fast ship, because of stability problems, *Macedonian* was later razeed to a spar deck sloop-of-war.²⁸

We devised a new drawing that would show the hull design differences among these four types of ships. We chose a waterline common to all four: the six foot waterline above the baseline (rabbet). We then superimposed each ship's six foot waterline. Along these waterlines we wanted to compare body lines at bow, midships and stern. We wanted to compare the same body line at the same moment on each ship. But the overall dimensions between perpendiculars varied greatly between ships. This was solved by dividing each ship's measurement between perpendiculars by ten. By measuring at one tenth of the distance between perpendiculars of each ship we established a point on each hull that was roughly the equivalent for each. Body lines were drawn using this common point and superimposed. The midship section was taken from the widest point ("dead flat") of each draft and also superimposed for comparison (see Fig. 8).

By illustrating the ships lines in this way, a better visual comparison could be made between the different classes. Also demonstrated were the differences necessary to gain sufficient displacement and stability to support different numbers of gun decks.

Stability is one of the most important factors that ensures a successful ship. One of the ways a naval architect gains this stability is in the shape of the hull, how much water it displaces, and where this displacement occurs on the hull. This is clearly seen in Fig. 8 showing the body sections of the four ships in the forward part of the hulls just aft of the forward perpendicular marked "C". The innermost section is the sloop *Constellation* of 1855, then comes the frigate *Constellation* of 1797, followed by the *Macedonian* of 1824, then the liner *Pennsylvania*. The sloop's section is the straightest since its hull needed only to support one gun deck of guns. The two frigates supported two gun decks, and their hulls bulged out at "X" and "Y" to gain sufficient displacement and stability to support the extra deck. The liner really bulged because it supported four gun decks.

Our conclusion regarding these comparison drawings was that while the frigate *Constellation* could be converted to a sloop-of-war, the sloop of 1853 could not be converted to a frigate. The current reconfiguration of the ship in Baltimore today represents an architectural impossibility.



CONCLUSIONS

The sequence of building events in 1853 are consistent with the step-by-step process as outlined in the treatises. Some have tried to show that the *Constellation* was an exception to the rule when she supposedly was lengthened twelve feet and razeed to about her 22 foot waterline in 1853. The exception was based on several forged documents and drawings that fit awkwardly in the historical record. When the forgeries were removed we found the existing documentary record fit what we learned in the building treatises. Because the *Constellation* was, indeed, the result of the best minds in mid-nineteenth century American warship design and the last sail-only powered warship designed by the Navy – the end result of a long continuum of theory and practice – the ship on display today is an irreplaceable treasure.

If the *Constellation* was lengthened as Pollard suggested, by 12 feet, then there should be an historical record similar to the frigates *Sabine* and *Santee*. The National Archives shows several drawings of these two ships with the changes made to them drawn in different colored inks. Clearly the *Sabine* and *Santee* went through the mould loft and design process twice. The drawings show how the elliptical stern was added and the bow was lengthened 20 feet. Only about one third of the midship section was retained in the new design. Pollard theorized that the *Constellation* was lengthened between frames E, F, G, H and the after sisters of frame I in the 1795 Humphreys design. This was contrary to how the mould loft process worked. Such lengthening would have required the refairing of all frames forward to the stem post from greatest breadth amidships. The historical record would show two sets of offsets: recording the *Constellation* before and after lengthening.²⁹

Two sets of offsets do exist for the *Constellation*. But they do not reveal any “before and after” record.³⁰ They are essentially the same except one shows the designed hang in the keel which was known to overcome the natural tendency for the new ship to initially hog under load afloat.

An exhaustive search made by the team of the historical record produced no genuine evidence either in drawings or documents to link the two *Constellations* other than in name only. The two ships were conceived by two different naval constructors in separate centuries to different sets of naval requirements. It appears that a deliberate attempt by perhaps one person was made to link the two *Constellations* by forging historical records.

ENDNOTES FOR APPENDIX A

1. John H. Schroeder, *Shaping a Maritime Empire* (Westport, CT: Greenwood Press, 1985); Robert G. Albion, William A. Baker, Benjamin W. Labaree, *New England and the Sea* (Middletown, CT: Wesleyan University Press, 1972), p. 145.
2. Donald L. Canney, *The Old Steam Navy 1* (Annapolis: Naval Institute, 1990): 43; Edwin L. Dunbaugh and William duBarry Thomas, *William H. Webb: Shipbuilder* (Glen Cove, NY: Webb Institute, 1989), pp. 55–68; Carl C. Cutler, *Geyhounds of the Sea: The Story of the American Clipper Ship* (Annapolis: U.S. Naval Institute, 1937), pp. 172–279, 414–425; Howard I. Chapelle, *The Search for Speed Under Sail, 1700–1855* (New York: W.W. Norton, 1967), pp. 321–397; Howard I. Chapelle, *The History of American Sailing Ships* (New York: W.W. Norton, 1935), pp. 283–286; Arthur H. Clark, *The Clipper Ship Era* (New York: G.P. Putnam's Sons, 1910), pp. 134–247, 349–360.
3. 138–13–12, "Proposed alteration of U.S. Frigate Sabine...Navy Yard New York, April 26th, 1854"; 79–10–7B, "Proposed alteration of U.S. Frigate Sabine...Navy Yard New York, April 26th, 1854. B.F. Delano, N.C."; 79–10–7A, "Profile of U.S. Frigate Sabine as a Corvette, April 26th, 1854"; 107–10–9M, "Plan for lengthening U.S. Frigate Sabine 20 feet. Navy Yard New York, June 15th, 1854. B.F. Delano, N.C."; 107–11–14E, "U.S. Frigate Santee, Navy Yard Kittery, ME, May 9th, 1854. I. Hanscome, N.C.," all in Record Group 19: Records of the Bureau of Ships, entry 126, "Plans of Ships and Shore Establishments," National Archives and Records Administration (hereafter this source and entry will be cited as "RG–19, E–126, NARA"). Navy Department, Chief of Naval Operations, Naval History Division, *Dictionary of American Naval Fighting Ships 2* (Washington, DC: GPO, 1959–1981): 170–171, 214–215; 6: 215–216, 325; 3: 424–425. W.B. Shubrick to John P. Kennedy, 18 Aug 1852; John Lenthall to J.C. Dobbins, 17 Dec 1853, Record Group 19, Records of the Bureau of Ships, Entry 49, "Letters Sent to the Secretary of the Navy," NARA.
4. John W. Griffiths, *Treatise on Marine and Naval Architecture or Theory and Practice Blended in Ship Building* (New York: D. Appleton and Co. 1854); Richard W. Meade, *A Treatise on Naval Architecture and Ship-Building* (Philadelphia: J.B. Lippincott & Co., 1869); Lachlen McKay, *The Practical Ship-Building* (New York: Collins, Keese and Co., 1839); Theodore D. Wilson, *An Outline of Shipbuilding, Theoretical and Practical* (New York: John Wiley & Sons, 1878). McKay, *Practical Ship-Building*, introduction and p. 8. Chapelle, *Search for Speed Under Sail*, pp. 373–374.
5. Meade, *Treatise on Naval Architecture*, preface and pp. 31–184; McKay, *Practical Ship Builder*, pp. 11, 13; Wilson, *Outline of Shipbuilding*, pp. 98–104.
6. Griffiths, *Treatise on Marine Architecture*, pp. 79, 80, 84, 166–168, 170, 195–198; Meade, *Treatise on Naval Architecture*, p. 203.
7. McKay, *Practical Ship Builder*, pp. 13, 19, 41; Griffiths, *Treatise on Marine Architecture*, pp. 84, 90, 91, 145–46, 157–58, 161–163; Meade, *Treatise on Naval Architecture*, pp. 198–202, 280; Wilson, *Outline of Ship Building*, pp. 105–106.

8. Meade, *Treatise on Naval Architecture*, chapters 6–15; Griffiths, *Treatise on Marine Architecture*, chapters 1–3; Wilson, *Outline of Ship Building*, chapters 1–24; McKay, *Practical Ship Builder*, chapter 1.
9. Griffiths, *Treatise on Marine Architecture*, pp. 96–97, 99–101, 115–116, 227, 229–230, 233; Meade, *Treatise on Naval Architecture*, pp. 202–204, 309; McKay, *Practical Ship Builder*, pp. 15–17, 19, 94; Wilson, *Outline of Ship Building*, pp. 105–106, 131–132.
10. Griffiths, *Treatise on Marine Architecture*, pp. 127–129; Meade, *Treatise on Naval Architecture*, pp. 279, 304–305; McKay, *Practical Ship Builder*, pp. 19, 21–39, 47; Wilson, *Outline of Ship Building*, pp. 131–132, 134–168.
11. Griffiths, *Treatise on Marine Architecture*, pp. 161, 163, 176; Meade, *Treatise on Naval Architecture*, pp. 306, 310–311; McKay, *Practical Ship Builder*, pp. 39, 44–45; Wilson, *Outline of Ship Building*, pp. 183–199. The actual building of many wooden vessels greatly preceeded the traditional “keel laying.” Building did not necessarily have to start with laying the keel.
12. McKay, *Practical Ship Builder*, p. 105; Howard Chapelle, *The History of the American Sailing Navy* (New York: W.W. Norton, 1949), pp. 394, 397; K. Jack Bauer, *Ships of the Navy 1775–1969* 1 (Troy, NY: Rennselaer Polytechnic Institute, 1969): 20. Leon D. Polland, *The Frigate “Constellation”: An Outline of the Present Restoration* (N.p.: 19 June 1968), p. 12. Naval History Division, *Dictionary of Fighting Ships* 4: 178–180.
13. Chapelle, *American Sailing Navy*, pp. 392–394, 463–464; Bauer, *Ships of the Navy*: 20; Howard Chapelle and Leon Polland, *The Constellation Question* (Washington: Smithsonian Institution Press, 1970), p. 15 (hereafter this book will be cited as “CQ”).
14. Bauer, *Ships of the Navy*: 4, 18–20; Chapelle, *Sailing Navy*, pp. 394, 397, 464; Naval History Division, *Dictionary of Fighting Ships* 2: 214–215; 3: 424–425. 40–8–6H, “Cumberland. Sheer, Half-Breadth, and Body. Measured to Outside of Planking. Navy Yard Boston,” Oct 1856; 28–5–34A, “U.S. Ship Independence. Aug 7th, 1850. S. Hartt. Drawn to Outside of Planking from Dimensions Taken in June 1849 at Gosport Navy Yard”; 107–12–18A, U.S.S *Independence* Sail Plan. 19 Dec 1844. S.M. Pook, RG–19, E–126, NARA.
15. Chapelle, *Sailing Navy*, p. 464; Naval History Division, *Dictionary of Fighting Ships* 2: 214–215; 3: 424–425.
16. Naval History Division, *Dictionary of Fighting Ships* 2: 162–164, 173–176. Chapelle, *American Sailing Navy*, p. 464.
17. Dana M. Wegner, “Trends in the Study of Ship Design,” *Naval History: The Sixth Symposium of the U.S. Naval Academy* (Wilmington, DE: Scholarly Resources, 1987), pp. 313–318. Meade, *Treatise on Naval Architecture*, pp. 202–203; Griffiths, *Treatise on Marine Architecture*, pp. 92–93.
18. See pp. 62–64.

19. The 1855 draft is drawing 128547 and 128584 of November 1855 in RG-19, E-126, NARA. The required refairing of lines at the bow and stern of some half models is an important aspect overlooked by most students of half models. The aberration is to be expected in genuine models of particularly sharp ships.
20. Griffiths, *Treatise on Marine Architecture*, pp. 127-129; Meade, *Treatise on Naval Architecture*, p. 280.
21. Thomas Ballston, *James Whatman, Father & Son* (New York: Garland Publishing, 1979) and William Ballston, *Paper Maker, 1759-1849* (London: Methuen & Co., 1954). Griffiths, *Treatise on Naval Architecture*, p. 158.
22. Norman Rubin, "Variances In the Dimensions of Half Models," *The American Neptune* 37, #3 (July 1977): 164-173. Lewis V. Judson, *Weights and Measures Standards of the United States: A Brief History*. Department of Commerce, Bureau of Standards Special Publications 447 (Washington: GPO, 1976), pp. 2-3, 6-8, 24. The problem of the non-standard inch seems to be generally overlooked by most current naval architectural historians. For drawings which did not agree, see Table of Drawings, items 5 and 8.
23. Chappelle, *American Sailing Navy*, pp. 422, 464; red file #1283, "Gun Deck Plan of the Frigate Constitution, Raritan, Congress, Aug. 1852," Record Group 74, Records of the Bureau of Ordnance, entry 202, "Plans, Drawings, and Sketches, 1818-1921," National Archives and Records Administration. Naval History Division, *Dictionary of Fighting Ships* 2: 162-164, 173-176; 6: 35-36.
24. Chappelle, *American Sailing Navy*, pp. 364-365. G.S. Laird Clowes, *Sailing Ships: Their History & Development*, 2 parts (London: His Majesty's Stationery Office, 1932): part I, pp. 61, 74-75, 77, 84, 94-95; part II, plate XIX; E.H.H. Archibald, *The Wooden Fighting Ship In the Royal Navy, AD 897-1860* (New York: Arco Publishing, 1968), p. 72; Peter Goodwin, *The Construction and Fitting of the English Man of War, 1650-1850* (Annapolis: Naval Institute, 1987), p. 36.
25. Clowes, *Sailing Ships*: part I, pp. 94, 96; part II, pp. 5, 66-67, 70-76, 79-80, 82-83; Peter Goodwin, *Construction and Fitting of the English Man of War*, pp. 26-27, 34-36.
26. The mizzen mast survey drawing is in CQ, pp. 95-96.
27. 40-10-9F, "Stern of the U.S. Frigate Congress," RG-19, E-126, NARA. Polland's doubts about this drawing are specified in his construction note of 13 Jan 1965, Leon D. Polland Papers.
28. Naval History Division, *Dictionary of Fighting Ships* 5: 250; 4: 178-180.
29. CQ, p. 111.
30. 142-1-7, offsets of USS *Constellation*, RG-19, E-126, NARA.

TABLE OF DRAWINGS APPENDIX A

1. *Body Plan for Frigate Congress*. Nov 1838. Scale: $3/8" = 1'$. Samuel Humphreys. RG-19, E-126, 40-10-9D, NARA. Word "Constellation" and date "1852" written in pencil by different hand.
2. *Gun Deck Plans of Constitution, Raritan and Congress*. Aug 1852. Scale: $1/4" = 1'$. RG-74, E-202, 1283. NARA. Word "Constellation" written in ink above "Congress."
3. *Plan of the Navy Yard at Gosport, VA*. Jan 1843. Scale: $1" = 200'$. RG-71, E-71, 55-3-15. NARA. Plan showing all buildings, slips and dry docks.
4. *U.S. Sloop Constellation Lines Plan*. Scale: $1" = 5'$. Copy found in Polland Papers. His source unknown but believed to be from National Archives. See #1B below. Originally made at Navy Yard, Portsmouth, NH, Dec 1887 tracing Lenthall's lines of 1853. Notes on drawing by Polland.
5. *Frigate Congress and Constellation of 36 Guns*. 15 Jan 1795. William Doughty. Scale: no modern equivalent. See bar scale. U.S.NA collections, formerly C&R 41-9-1P.
6. *Cumberland. Sheer, Half-Breadth, and Body. Measured to Outside of Planking. Navy Yard Boston*. Oct 1856. Scale: $1/4" = 1'$. RG-19, E-126, 40-8-6H, NARA.
7. *Macedonian*. July 1851. Scale: $1" = 5'$. RG-19, E-126, 108-10-6C. NARA. Inboard profile of frigate of 1829 razed to spar deck sloop-of-war. No name or other info on drawing. Believed to be by J. Lenthall.
8. *Body plan for frigate Congress*. Nov 1838. Scale: $3/8" = 1'$. RG-19, E-126, 40-10-9C, NARA. This drawing a cleaned up version of 40-10-9D and most likely represents the final form.
9. *Original Constellation and Congress 1795 sheer and half breadth*. Scale: no modern equivalent. See bar scale. RG-19, E-1267, 40-7-11A, NARA. Title is in pencil between sheer and half breadth. Says "original", but believed to be a copy of draft in U.S.NA collections, formerly C&R 41-9-1P.
10. *Inboard plan of frigate Congress with certain proposed alterations as shown by red lines*. No date. S. Pook, MB. RG-19, E-126, 40-10-9K, NARA. Reflects *Congress* as rebuilt in 1838 and launched at Portsmouth, NH on 16 Aug 1841. Certain proposed alterations were most likely made in 1850 when diagonal riders were used. Diagonal riders were also used in the *Constellation* in 1853.
11. *Stern of the U.S. frigate Congress*. RG-19, E-126, 40-10-9F, NARA. Word "Constellation" and date "1812" added in pencil. Drawing shows the elliptical stern of the 1838 *Congress* and the countermark reads "Whatman T. F. 1858."

This drawing was made after 1858 perhaps in order to make a change in the fashion piece that covers stern and quarter galleries.

12. *U.S. frigate Constellation reconstructed stern elevation*. Scale: $3/8'' = 1'$. L.D. Polland, 18 Jan 1965. Polland Papers. Based on stern of *Congress* plan RG-19, E-126, 40-10-9F, NARA and mizzen mast survey of *Constellation* 1829 or 1840 depicted only in Polland Papers and CQ, pp. 95-96.
13. *Sloop of War Constellation*. June 1853. Scale: $1'' = 5'$. Attributed to John Lenthall. RG-19, E-126, 28-3-5, NARA. This drawing and the half model were most likely the products of the design process done at the Washington Navy Yard.
14. *Spar Deck Sloop Constellation*. Scale: $1/4'' = 1'$. H. Chapelle. Division of Military History, Smithsonian Institution. This drawing based on RG-19, E-126, 28-3-5, 28-3-2, 28-2-5-1, 107-13-48, 107-13-4B and offsets 142-1-7, NARA.
15. *Frigate Macedonian spar plan*. May 1826. Scale: $1/8'' = 1'$. Charles Capsell. RG-19, E-126, 41-9-C1, NARA. Drawing compares the old ship and the new one. It also clearly shows just how much larger the new ship was.
16. *Proposed draft to rebuild the Macedonian*. 1829. Scale: $1'' = 5'$. RG-19, E-126, 40-14-29, NARA. Most likely used in designing frigate of 1829. A refinement has been made to bow and stern, and diagonals have been added to the half-breadth plan. Bow and stern diagonals could have been added during mould loft process when ship was laid down in 1832.
17. *Constellation*. Scale: $1/4'' = 1'$. RG-19, E-126, 107-13-4A, NARA. Shows the hog in the keel. It shows the lower edge of the rabbet and bottom of false keel.
18. *Macedonian, rebuilt 1929 by Samuel Humphreys*. Scale: $1/4'' = 1'$. H. Chapelle. Smithsonian Institution. Based on archive drawings RG-19, E-126, 40-14-2E and 41-9-1A.
19. *Spar Deck Sloop of War Constellation*. Scale: $1'' = 5'$. John Lenthall. Polland Papers. Probably from Lenthall Papers, Franklin Institute.
20. *Frigate Constellation construction details (miscellaneous)*. L. Polland, 28 Dec 1965. Drwg. C-500-4, Polland papers. This drawing shows changes and observations made by Polland about construction details.
21. *Sheer and half-breadth plan of the U.S. Sloop of War Constellation*. Navy Yard Boston. Nov 1855. Scale: $1'' = 5'$. RG-19, E-126, 128584, NARA. Draft of record and consistent with half model, also $3' = 1''$ scale, and offsets.
22. *Body plan of the sloop of war Constellation*. Scale: $1'' = 3'$. RG-19, E-126, 128547, NARA. Similar to sheer and half-breadth plan 128584, #21 above.
23. *Macedonian as rebuilt by Samuel Humphreys*. 1824. Scale: $1'' = 5'$. RG-19, E-126, 40-14-2E, NARA. Drawing used in lofting process.

24. *U.S. Frigate Constellation*. Sheet 1 of 6. Scale: 1/32" = 1'. Pyro Plastics Corp. 15 Oct 1965. Polland Papers.
25. *U.S. Ship Macedonian*. Navy Yard Boston, Feb 1857. Scale: 1/8" = 1'. RG-19, E-126, 107-12-16C, NARA. Sail plan ("not approved") showing *Macedonian* as a spar deck sloop.
26. *Constellation Frigate Stern-Keel Trace*. L. Polland. Drwg. C-500-3, Polland Papers. Shows a comparison of Humphreys' and Lenthall's plans superimposed on hogged keel drawing RG-19, E-126, 107-13-4A (see #17).
27. *Load Lines*. Scale: 1" = 3'. RG-19, E-126, 107-8-11, NARA. Compares load lines and midship sections of sloops-of-war *Jamestown*, *Plymouth*, *Albany*, *Germantown*, *Saratoga* and *Portsmouth*.
28. *U.S. Frigate Constellation*. 1941. H. W. Potter. 6 sheets from A.J. Fisher's Ship Model Company, Royal Oak, MI. Title says frigate of 1797 but shows sloop-of-war of 1853.
29. *Draught of 38 gun frigates Constellation and Congress, 1797*. Scale: 1/4" = 1'. H. Chapelle. Division of Military History, Smithsonian Institution.
30. *Macedonian 1812*. Scale: 1/4" = 1'. H. Chapelle. Based on admiralty draught of class and sketches of ship, 1818.
31. *Macedonian reduced to a sloop 1851*. Scale: 1/4" = 1'. H. Chapelle. Smithsonian Institution. Reconstruction by Chapelle turning frigate into a sloop-of-war.
32. *Proposed draught to rebuild the Macedonian*. Washington, Dec 1828. Scale: 1" = 5'. S. Humphreys. RG-19, E-126, 40-14-2H, NARA. Precedes drawing 40-14-2E.
33. *U.S.F. Constellation - Frigate "E" Inboard Works and Deck Plans*. Scale: 1" = 5'. L.D. Polland, 26 June 1959. Drwg. C-100-4, Polland Papers. Shows Polland conversion of spar deck to a gun deck.
34. *Sloop of War Cyane and Levant*. May 7 1836. Scale: 1" = 6'. RG-19, E-126, 41-3-20B, NARA. Design draft noting changes to be made and proving the lines.
35. *Sloop of War Cyane May 7th 1836*. Scale: 5/16" = 1'. RG-19, E-126, 41-3-20A, NARA. Amended body plan of #35 showing the proving of lines and changes in design.
36. *U.S.S. Constellation Lines Plan*. Scale: 1/4" = 1'. L. Poland, 27 May 1961. Polland Papers. Shows how Polland altered Lenthall plans to a frigate.
37. *Lines to U.S. frigate Macedonian*. Scale: 1/4" = 1'. C.D. Ratliff, Nov 1989. DTRC. Shows water lines at 2' intervals above the base line for comparison to *Constellation*. References used were 40-14-2E, 40-14-2H and Chapelle plan for *Macedonian*, see #18.

38. *Lines to U.S. Frigates Constellation and Congress*. J. Humphreys, 1795. Scale: 1/4" = 1'. C.D. Ratliff, Dec 1990. DTRC. Shows water lines at 2' intervals above the base line for comparison purposes. References: 41-9-1P (see #9), 40-10-9C and Chapelle draught.
39. *Lines to Builder's Half Model U.S. Sloop-of-War Constellation*. Scale: 1" = 3'. DTRC. As taken off by C. D. Ratliff, Nov 1990.
40. *Lines Comparison for ships Constellation: Frigate and Sloop, Pennsylvania and Macedonian*. Scale: 1/4" = 1'. C.D. Ratliff, Nov 1990. DTRC. Compares water and body lines to show difference in designs.
41. *Proposed alteration of U.S. Frigate Sabine ... Navy Yard New York, April 26th, 1854*. RG-19, E-126, 138-13-12, NARA.
42. *Proposed alteration of U.S. Frigate Sabine ... Navy Yard New York, April 26th, 1854*. B.F. Delano, N.C.. RG-19, E-126, 79-10-7B, NARA.
43. *Profile of U.S. Frigate Sabine as a Corvette, April 26th, 1854*. RG-19, E-126, 79-10-7A, NARA.
44. *Plan for lengthening U.S. Frigate Sabine 20 feet. Navy Yard New York, June 15th, 1854*. B.F. Delano, N.C.. RG-19, E-126, 107-10-9M, NARA.
45. *U.S. Frigate Santee, Navy Yard Kittery, ME, May 9th, 1854*. I. Hanscome, N.C.. RG-19, E-126, 107-11-14E, NARA.
46. *U.S. Ship Independence. August 7th, 1850*. S. Hartt. Drawn to Outside of Planking from Dimensions Taken in June 1849 at Gosport Navy Yard. Scale: 1/4" = 1'. RG-19, E-126, 28-5-34A, NARA.
47. *U.S.S Independence Sail Plan*. 19 Dec 1844. S.M. Pook. Scale: 1" = 8'. RG-19, E-126, 107-12-18A, NARA. Shows existing rig in black and a reduced plan in red.

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APPENDIX B
CONSTELLATION, 1795 - 1855:
A COMPUTER-AIDED HULL FORM DESIGN STUDY

BY
KEVIN LYNAUGH

ADMINISTRATIVE INFORMATION

It is noted that a full naval architecture process with regard to final lofting and generation of the details necessary for full size construction could not be performed within the allowed constraints.

ACKNOWLEDGMENTS

The author would like to thank Paul Impelluso for generating Figs. 21 and 22; Gene Gotimer for his assistance in debugging and loading the new version of the Ship Hull Characteristic Program; and Robert Kurhajetz for his help and use of his Silicon Graphics workstation.

1.0 INTRODUCTION

The following discussion pertains to the work done for the David Taylor Research Center's (DTRC) model curator on the U.S.S. *Constellation* ca 1795. I was asked to evaluate three hull forms which represented the U.S.S. *Constellation* at different time periods in its history and give my opinion as to whether the ship hull of today is the same as in 1795. My methodology was simple and essentially three steps:

1. Model each set of data in the computer at the same scale.
2. Cut each hull at the same locations.
3. Overlay the sectional, waterline, and buttock curves and note the discrepancies (if any).

2.0 EVIDENCE

Three sets of drawings of hull form evidence exist, first a lines plan from 1795, second a lines plan from 1853, and thirdly a January of 1853 keel drawing with a February of 1853 Norfolk, Va. frame survey drawing. Other evidence was in the form of an offset booklet from 1853. The booklet or tables contained x, y, and z coordinates which were used to build, or loft the frames at full scale.

Two of the hull forms are represented in typical naval architecture lines drawing format. This format shows the form of the ship hull drawn to scale (1/4 inch to 1 foot and 1/3 inch to 1 foot respectively) using the method of descriptive geometry. The first hull form was a 1795 lines drawing of the U.S.S. *Constellation* as designed by Joshua Humphreys and drawn by William Doughty. The second was an 1853 lines drawing of the U.S.S. *Constellation* attributed to John Lenthall and a mold floor offset booklet which was from the 1853 design of Lenthall. The third piece consisted of a keel drawing, dated January of 1853, and a set of traverse sections from a frame survey, dated February

1853, both performed at the Norfolk Virginia Navy yard (for more information as to a possible method in which the frame survey was performed and the type of equipment used see section 4.2). Secondary evidence exists in the form of traditional naval architecture mathematical calculations. This evidence is hydrostatic curves of form drawings, a set of bonjean curves, and curves of static stability. A list of available drawings is given in the Table of Drawings. Although this secondary evidence exists only for the 1853 hull form, analysis has been performed for the 1795 hull and is compared (see section 3.1).

2.1 METHODOLOGY AND MODELING OF THE DATA (SOFT/HARDWARE)

Figure 9 shows an overview of computer hardware and software used to perform this analysis. The hardware consisted of a Digital Equipment Corporation (DEC) micro computer (microVaxII) with three dimensional naval architecture design software and an IBM /AT compatible computer with two dimensional drafting and word processing software.

The course of this naval architecture methodology is as follows. The three hull forms were digitized into the Naval Sea Systems Command (NAVSEA) Hull Form Design System (HFDS). A schematic of the system with the modules used is shown in Fig. 10. The HFDS consists of a large number of fortran computer programs (not all are shown) that reside on a DEC microVaxII computer at DTRC and are used for naval architecture design and analysis. The main programs used to perform this analysis were Bodyplan, XYZ, Blines, DXF and Ship Hull Characteristics Program (SHCP, see Note 5). Bodyplan was used to digitize the existing lines drawings and create a SHCP input file (offsets of stations). Bodyplan is a fortran code and was written at DTRC. XYZ was used to take the SHCP file and create a input file for Blines (reads in SHCP offsets and generates format for a Britfair file). XYZ is a fortran code and was written at DTRC. Blines is a commercially available computer code from British Maritime Technology (BMT) and has been used for lines fairing and preliminary ship design since 1982 by the U.S. Navy. Blines is a wire frame modeler (i.e. it is not surface but individual curves). The program uses cubic bsplines to represent curves for sections (frames), waterlines, buttocks, diagonals, stem and stern profiles, knuckle curves, and shear lines. The mathematical development and representation is as shown in Fig. 11. Blines interpolates three-dimensional points (x,y,z) to fit the curve, uses vertex points to adjust the curve, and inverse radius of curvature (second derivative of function describing curve) to evaluate smoothness or fairness. Other modelers were considered but Blines was chosen as having the most capability within the time constraint. This is apparent not only for representing curves accurately and quickly, but for use of a number of utility programs and interfaces which provides easy access to other HFDS programs and to IBM AT compatible computers and software. The 1795 and 1853 lines plans were digitized into the Vax and were cross faired on Blines. It is noted that both the 1795 and 1853 plans required only small adjustments (inches or less, full scale) in order to cross fair. The 1853 Norfolk frame survey was not faired as it is considered as live data directly off the existing ship. The frame survey drawing labeled U.S.S *Constellation* dated February 1853 contains nine (9) sections. The sections offsets were measured at every two (2) foot waterlines from the rabbet line of each station up to the rail. The data points from the frame survey were fit with bsplines but not faired. This was to retain the curves (bsplines) through the data points.

DXF is a fortran program which takes Blines plotter output files and converts them into AutoCad .dxf format. SHCP is a fortran program consisting of several subroutines which perform standard naval architectures calculations: hydrostatics, trim lines, longitudinal strength, etc.. The IBM AT Compatible programs AutoCad from Autodesk, Inc. ver 10.0 and Wordperfect from Wordperfect Corp. ver 5.1 were used extensively to display not only the engineering drawings, but to construct the report. SHCP was used to obtain the hydrostatic curves of form (at drafts from 2 to 24 feet). This program computed static stability information about each vessel and produced an AutoCad dxf drawing file (dxf is a file transfer standard of AutoCad) of the hydrostatic curves of form. The curves of stability for each vessel are compared in similar fashion with the lines drawings (see Figs. 12, 13, and 14).

The investigation centered around the January and February 1853 keel and frame survey data taken from the ship in Norfolk, Virginia. It was determined that if one of the hull designs of either 1795 or 1853 matched this frame survey then it would prove either:

- a. If the frame survey of 1853 matched the 1853 Lenthall design then only one design/ship existed, and that the design was far ahead of typical naval architecture for the 1795 period. It would also provide the heritage needed to support the theory that the 1955 (and present day) ship is the original frigate of 1797.
- b. If the frame survey was similar to the 1795 Humphreys design, then this is to be the key argument for construction of a new vessel in 1853. It would prove the contention that the original frigate from 1795 was in such disrepair that a new and modern design was constructed in 1853-55.

From the geometry of the frame survey, both the 1795 and 1853 designs had frame sections taken at the same longitudinal sections.

3.0 GEOMETRY COMPARISONS

3.1 FINDINGS AND COMPARISON OF THE DIFFERENT HULLS

It is my opinion that the 1853 frame survey matches the original 1795 Humphreys design. It is interesting to note that the 1853 frame survey not only shows a vessel which is slightly twisted but shows a hog in the vessel of approximately 19-20 inches. This hog can be seen in Fig. 15. To show the similarities of the two hulls, the frames from the 1853 frame survey are overlaid on the 1795 frame cuts and are shown in Fig. 16. On comparison with the same longitudinal section cuts or frames from the 1795 design, the curves match rather well. This is especially true when the curves for the frame survey are moved to the same origin (rabbit line) as in the 1795 design (see Fig. 17). However, when the same cuts are made in the 1853 Lenthall design and compared to the 1853 frame survey (see Fig. 16a), the discrepancies between the frames are noticeable and in my opinion are not of the same vessel (if a possibility existed for a conversion from an existing frame to the newer design it will be discussed later in the Opinion section 4.3).

3.1.1 Original Shape Of 1795 Frigate Below Gun Deck As Compared With Existing Design

The 1795 design and 1853 design are compared in one form. Sectional slices have been made in the 1853 design hull and compared with the 1795 hull design. The sections are compared only below the gun deck. Figure 18 shows the body plans of the 1795 design, the 1853 design and the combination or overlay of one on the other. It is highly unlikely that this marriage of a wooden hull structure would be possible, both for technical and fiscal reasons. It is fact that today this type of conversion is performed, but it is done with steel and welding, not by nailing and pinning. Also, the present hull would reveal major scarf zones.

Although the 1795 design is 163'-8" length between perpendiculars (lbp) and the ship today is 176' lbp it is assumed that if a extension of 12 feet (a small increment for all the work involved) were performed, it would have been done at the midships section or slightly forward. The technique of extending a ship was known to have been used during the 1850's on at least two vessels. Both the U.S.S *Sabine* and the U.S.S *Santee* were lengthened in the bow and stern. However, both vessels were new constructions. The modifications took place on the ways before launching and no planking or major construction had taken place in the forward and aft frames. No evidence has been found which supports modifying an existing (active) U.S. naval wooden vessel into an entirely new design. The only major modification performed on vessels was to raze or remove the upper gun deck. One result was to increase stability under sail. The effect of razing was to increase a vessel's stiffness or transverse geometrical metacentric (GM) height by moving the effective center of gravity lower in the hull (see Fig. 19). Figure 20 shows an isometric of both vessels and Figs. 21 and 22 show shaded images of the vessels. It is noted that the two designs are not similar.

3.1.2 Original Clipper (Thinned) Bow Retained

The statement that the original clipper bow visible today was retained from the 1795 design as shown in Fig. 23 is not true. It is shown that the 1795 design has the rounded form. The waterlines have the appearance of being modeled after fish-shaped sections. If we consider studies of shapes for minimal resistance, the National Advisory Committee for Aeronautics (NACA) did extensive wind tunnel studies (1920's-1950's). The studies looked at wing shapes for lift and drag. The NACA information was provided to designers in which standard airfoil sections were used to design propellers, wings and rudders. If one compares the geometry of the NACA sections, one finds they are similar to ship waterlines of the 1795 period. The NACA waterline was consistent with the period and a clipper bow would be an overly radical design change within the navy bureaucracy. It would not follow the typical naval architecture practice of only making small modifications to existing designs. An example of a NACA 4-digit airfoil section is shown with a waterline from the 1795 hull in Fig. 24. If radical design changes occurred, they generally happened in the merchant or private design community, and not in the Navy.

4.0 OPINIONS

4.1 TRADITION

Typical naval architecture is a slow evolution, which starts from a previous design and makes minor modifications for the next iteration. It is also noted that during the 1840's-1850's there appears to have been a renaissance in naval architecture within the Navy. Ships were being built more for speed and handling agility than for "show the flag" size, and stability. It is also noted that new naval vessels were similar in hull shape to comparable new merchant vessels of the period. Merchant vessels were constructed for speed, sailing ability, hull strength, and stability at a variety of drafts.

4.2 OPINIONS ON THE U.S.E OF SURVEY EQUIPMENT AND THE GRAVING DOCK

The February 1853 frame survey was apparently performed in the North slip at the Norfolk Navy yard. The slip was a stone-faced incline used to pull ships out of the water or to launch them. The most important aspect of dry docking a large vessel is in supporting the keel and bilges. The supports prevent localized stresses from damaging the keel (using keel blocks) and keep the ship from rolling over on its side (using bilge blocks) when it is hauled out of the water. The device believed to measure the shape of the keel before the ship is hauled out is shown in Fig. 25. The process consisted of two barges with a man stationed on each barge to pull or release a measuring line as a pantograph-type mechanism under the keel adjusted to the shape of the keel. At the same time, the pantograph pulled or slacked on the measuring line and readings were taken. The barges were moved from the bow to the stern and measurements were taken at the respective frames which would rest on keel blocks. Recording the numbers had to have taken place in very calm water and conditions. The numbers were called out by each man on the barges and recorded, most likely to a third member of the team. This information was then provided to a draftsman to draw up the docking plan. The docking plan was then used to set the keel and bilge blocks in the slip. The ship would then settle on the correctly positioned blocks. These blocks prevented the ship from rolling or being damaged by uneven pressure on the hull during the overhaul period.

4.3 OPINIONS OF THE U.S.E OF WOOD AS A STRUCTURAL MATERIAL

Although the comparative abundance of wood has made it a natural material for homes, structures, and ships, wood is by no means the ideal construction material for ships. But with America's great supply it was the material of choice not only in abundance, but with regard to cost and a large experienced labor pool. These factors made it's use popular until the late 1800's and with some commercial vessel construction into the 1900's.

The principal types of wood used for ship construction were white or live oak for the frames (it was also used in selected areas for planking), and southern yellow pine for planking. Live oak is fairly impenetrable by liquids and has one of the highest modulus of elasticity out of all the domestic woods. Yellow pine on the other hand, grew straight was easily worked, and had low shrinkage. These factors made its use ideal for planking.

A major draw back with wood is that it prefers to be totally dry or totally wet. The worst case is when it is subjected to a continually wet and dry environment. Failure as a structural material is imminent if it is not kept dry or completely submerged and protected (i.e., paint, coatings, chemical treatment) from the environment. A practical every day example of this is the fence post problem. Posts will always decay and fail at the post/ground interface.

Another problem with wood is that it is cellulose and a part of the food chain for many organisms. The following are organisms which degrade wood; fungi, bacteria, insects, and marine animals. Fastenings such as nails, trunnels, and bolts are pathways for many of the organisms listed and aid to its eventual failure.

A typical problem with large wooden vessels is the flexibility of the material under load. Wood will, with time, conform and creep to whatever external forces are acting on it. Thus, a wooden vessel has a tendency to hog within a number of years. This hogging is due to the large buoyancy force acting in the midships area and little or no buoyancy force available at the bow and stern. As a historical note, shipwrights would build a sag into the keel of several inches to offset this large buoyancy force. This practice is even apparent today with bridge beams and with tractor truck trailers built with a reverse camber (hog) to offset large down-loads. With this poor match of opposing forces, especially in the midships sections, and as the wood loses its strength due to absorption of water, fungus attack, the working and loosening of fastenings in a sea way, etc., the ship will start showing her age by developing a noticeable hog. At this time the ship's structural stability is in question and a survey would be in order to assess action to either repair, or scrap the vessel.

5.0 CONCLUSION

With the examination of the available evidence given to me completed, my conclusion is that the U.S.S *Constellation* as it exists today in Baltimore, Md., is not the ship that was designed and constructed in 1795 but a new design and construction of 1853.

With the evaluation of wood over such a long period in the marine environment, and limited knowledge of preservatives during its life, it would not be justified fiscally and technologically to modify an existing vessel into a more modern design. Furthermore when wooden ships were repaired, it was to local damage of bow and stern posts, keel shoes, rotted or damaged hull planking, or a limited number of broken or rotted frames, and beam knees, not a large scale redesign "cut and paste" effort. Figure 26 shows the possible additions to the 1795 frames to make them similar to the 1853 design. It is in my opinion that this exercise would not be allowed by the designers, the ship constructors, or the Navy.

The theory that the *Constellation* was a radical design for the 1795 period is not a possibility. Hull changes would not be allowed by local individuals as has been suggested, especially without supporting engineering calculations approved by the cognizant naval architect.

Finally the U.S.S *Constellation* that exists in Baltimore is a fine example of 1853 naval history. It holds a place in the evolution of U.S. naval architecture. The ship of 1853 demonstrates the major advancements in hull design from the art of 1795 which mimicked nature, into a science of 1853 which allowed ships greater speed and better

handling in a seaway. If the ship is to be preserved it should be as a superb example of 1853 period design, and not 1795.

NOTES FOR APPENDIX B

1. A plan dated May 1853 is in Lenthall Collection, Franklin Institute; the dimensions taken from the old ship prior to and after hauling out are 107-13-4A and B; a June 1853 plan is drawing 28-3-5; the offsets are 142-1-7, all in Record Group 19: Records of the Bureau of Ships, entry 126, "Plans of Ships and Shore Establishments," National Archives and Records Administration (hereafter cited as RG-19, E-126, NARA); 107-13A and B were compared by computer and found to represent the same curvature and degree of hog. There is no doubt that both drawings show the *Constellation* of 1797 in early 1853.
2. "U.S.F. 'Constellation' Hydrostatic Curves." L.D. Polland, 1 June 1961. Drwg. C-100-6-(A); "U.S.F. Constellation Curves of Form." E. Kangas and C. Anderson, 23 Oct 1964. Drwg. C-100-106-(B), both from Polland Papers. 78-11-10, "U.S. Ship Constellation Curve of Statical Stability." W.S. Mintoyne, 26 May 1888, both from RG-19, E-126, NARA.
3. For drawings of ships undergoing lengthening, see for example: 138-13-12, "Proposed alterations of U.S. Frigate Sabine...Navy Yard New York, April 26th, 1854"; 79-10-7B, "Proposed alterations of U.S. Frigate Sabine... Navy Yard New York April 26th, 1854. B.F. Delano, N.C."; 79-10-7A, "Profile of U.S. Frigate Sabine as a Corvette, April 26th 1854"; 107-10-9M, "Plan for lengthening U.S. Frigate Sabine 20 feet. Navy Yard New York, June 15th, 1854. B.F. Delano, N.C."; 107-11-14E, "U.S. Frigate Santee, Navy Yard Kittery, ME May 9th, 1854. I Hanscome, N.C.," RG-19, E-126, NARA.
4. Drawing, "For taking the shape of ship before docking," drawn by Charles S. Bruff, undated, Record Group 45, Naval Records and Library, entry 405A, "Grice Collection," #87, National Archives and Records Administration.
5. For more information on computer-aided ship design, see: AutoCAD Release 10 reference manual, Autodesk, Inc. ; Blines reference manual, British Maritime Technology; Computational Geometry for Design and Manufacture, I.D. Faux, M.J. Pratt; and Ship Hull Characteristics Program users manual 1989.

TABLE OF DRAWINGS APPENDIX B

1. *Original Constellation and Congress 1795 sheer and half breadth.* Scale: no modern equivalent. See bar scale. RG-19, E-1267, 40-7-11A, NARA.
2. *Frigate Congress and Constellation of 36 Guns.* 15 Jan 1795. William Doughty. Scale: no modern equivalent. See bar scale. USNA collections, formerly C&R 41-9-1P.
3. *Transverse Sections of Frigate Constellation.* Feb 1853. Scale 1/4" = 1'. RG-19, E-126, 107-13-4B, NARA. Sections taken from old *Constellation* after hauling into North Slip.
4. *Sloop of War Constellation.* June 1853. Scale 5' = 1". Attributed to John Lenthall. RG-19, E-126, 28-3-5, NARA.
5. *U.S. Ship Constellation.* Bonjean curves. 31 Oct 1888. RG-19, E-126, 78-11-10, NARA.
6. *U.S. Ship Constellation. Curve of Statical Stability.* W.S. Mintoyne. 26 May 1888. RG-19, E-126, 28-3-12, NARA.
7. *USS Constellation Displacement and Other Curves.* Bureau of Construction and Repair. (?) 1901. RG-19, E-126, 19-108-3-4 1/2, NARA.
8. *U.S.F. Constellation. Curves of Form.* E. Kangas and C. Anderson. 23 Oct 1964. Drwg. C-100-106(B), Polland Papers.
9. *U.S.F. Constellation. Hydrostatic Curves.* L.D. Polland. 1 June 1961. Drwg. C-100-6-(A), Polland Papers.
10. *U.S. Frigate Constellation. Midship Section.* 10 Sept 1959. Scale: 1/2" = 1'. L.D. Polland. Drwg. C-100-3, Polland Papers.
11. *24 PDR Carronade, Carriage and Gun. U.S.F. Constellation.* L.D. Polland. 24 Feb 1975. Drwg. C-400-7, Polland Papers.
12. *For taking the shape of ship before docking.* Charles S. Bruff. Record Group 45, Naval Records and Library, entry 405A, "Grice Collection," #87, National Archives and Records Administration.
13. *Constellation Keel.* Jan 1853. RG-19, E-126, 107-13-4A. Shows hogged keel prior to hauling into North Slip in Feb 1853.

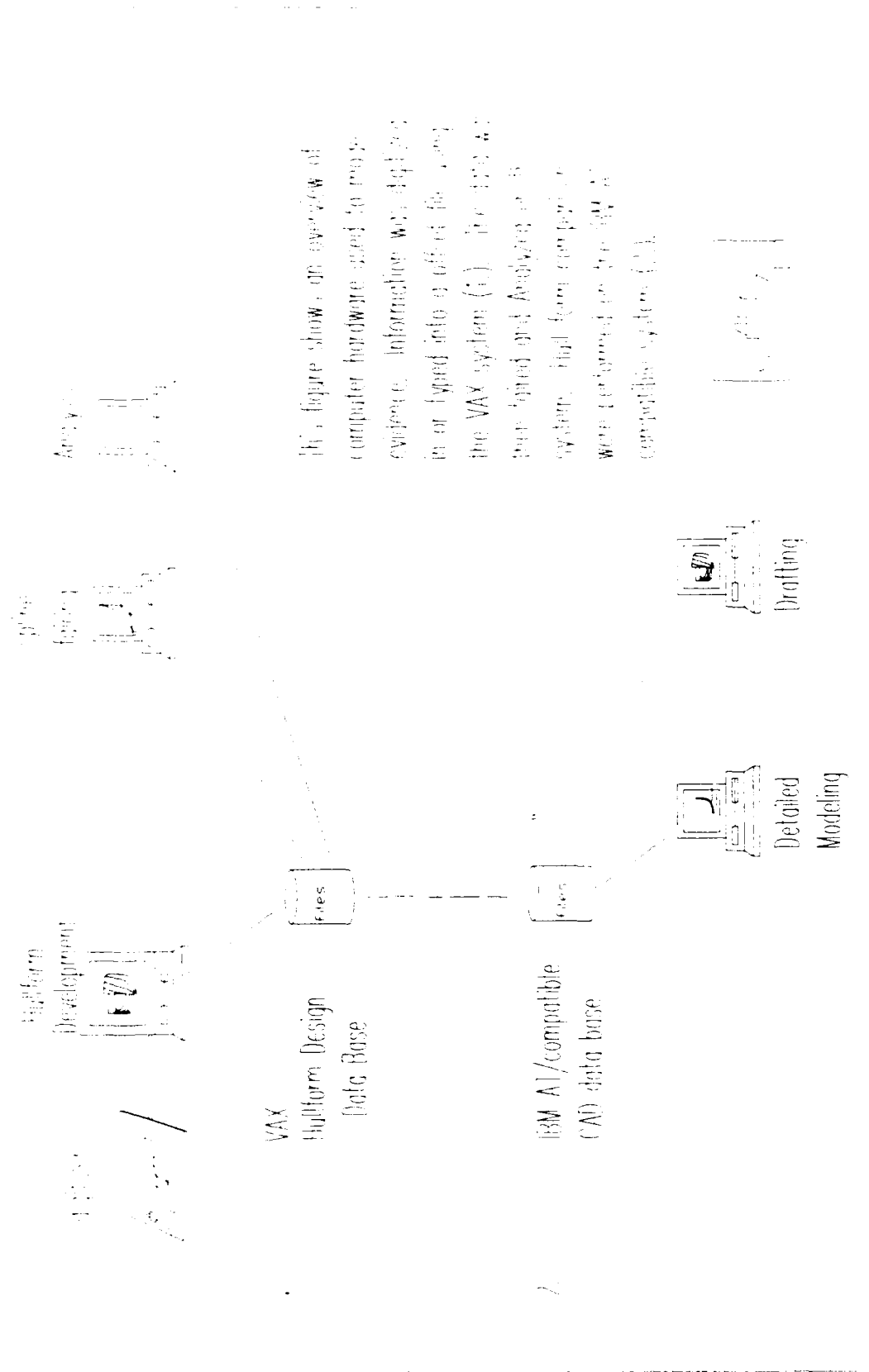


Fig. 9 shows an overview of computer hardware used to manage evidence. Information was digitized in or typed into a file of the VAX system (i). The file was then typed and analyzed on the system. The term computer was referred to the IBM A1/compatible system (ii).

Fig. 9. Computer hard/software used in study

The use of cubic B-splines, or fundamental splines (the B is for Basis) by designers to fair curves and surfaces has been around since the 1960's. B-splines have generally replaced the draftsman's spline which has been used for centuries. However draftsman's splines are still in use today, not only by designers but by full size lofting shops. As a direct mathematical analogue to the draftsman spline, the cubic spline is defined as follows. The curve is piece-wise continuous to the second derivative and has different cubic polynomials between consecutive data points or knots.

The spline can be thought of as a long elastic beam. Using Euler's equation for beam theory, we state the following:

$$M(t) = EI/R(t)$$

Where $M(t)$ is the bending moment, E is Young's modulus, I is the moment of inertia, and $R(t)$ is the radius of curvature. Since the spline weights (ducks) are essentially simple supports, there is a linear relationship between the bending moment and the parameter t , or

$$M(t) = Pt + Q$$

The radius of curvature is defined as below

$$R(t) = (1 + y'(t))^2 / y''(t)$$

For small deflections (slopes), the radius thus becomes the inverse of the second derivative, and equation 1 becomes

$$y(t)'' = (Pt + Q)/EI$$

Integrating twice with respect to t gives

$$y(t) = at^3 + bt^2 + ct + d$$

where a , b , c , and d are undetermined coefficients.

Thus between every two knots the spline may be approximated by a cubic polynomial. Problems with large slopes have been alleviated by using parametric splines: x , y , and z are defined in terms of a parameter t .

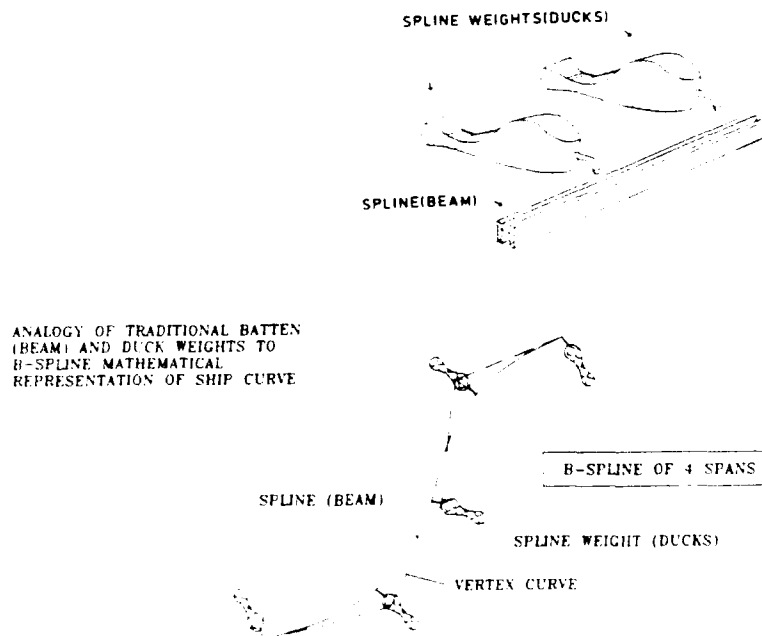


Fig. 11. Mathematical description of bsplines

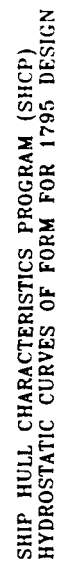


Fig. 12. Hydrostatic curves of form for 1795 hull

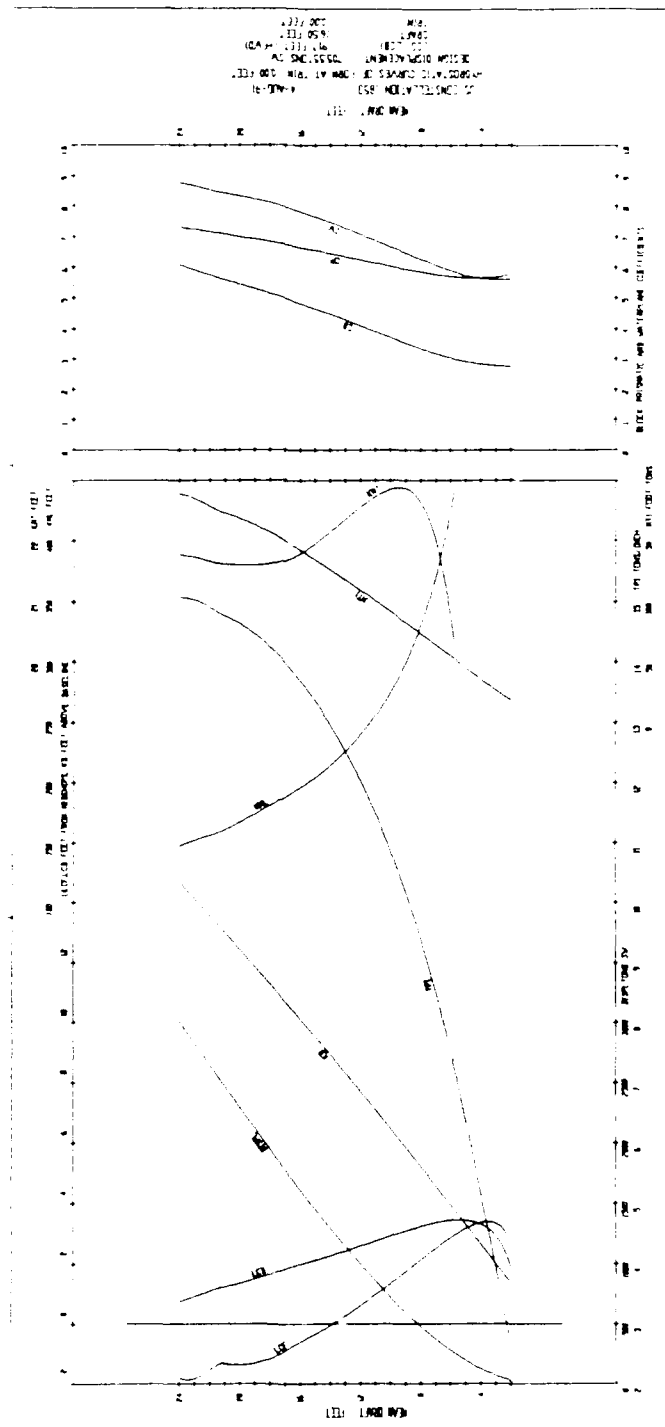


Fig. 13. Hydrostatic curves of form for 1853 hull

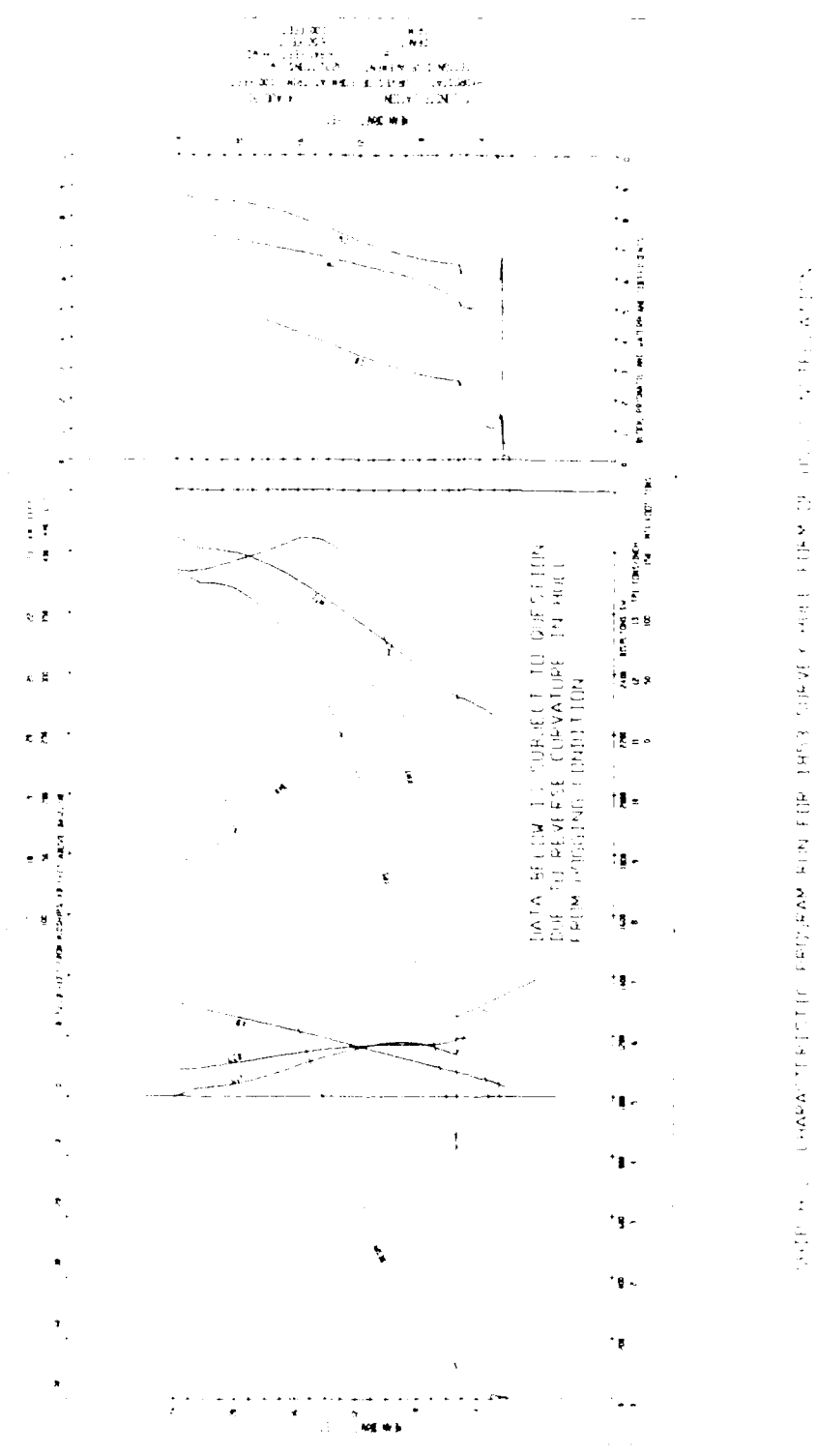
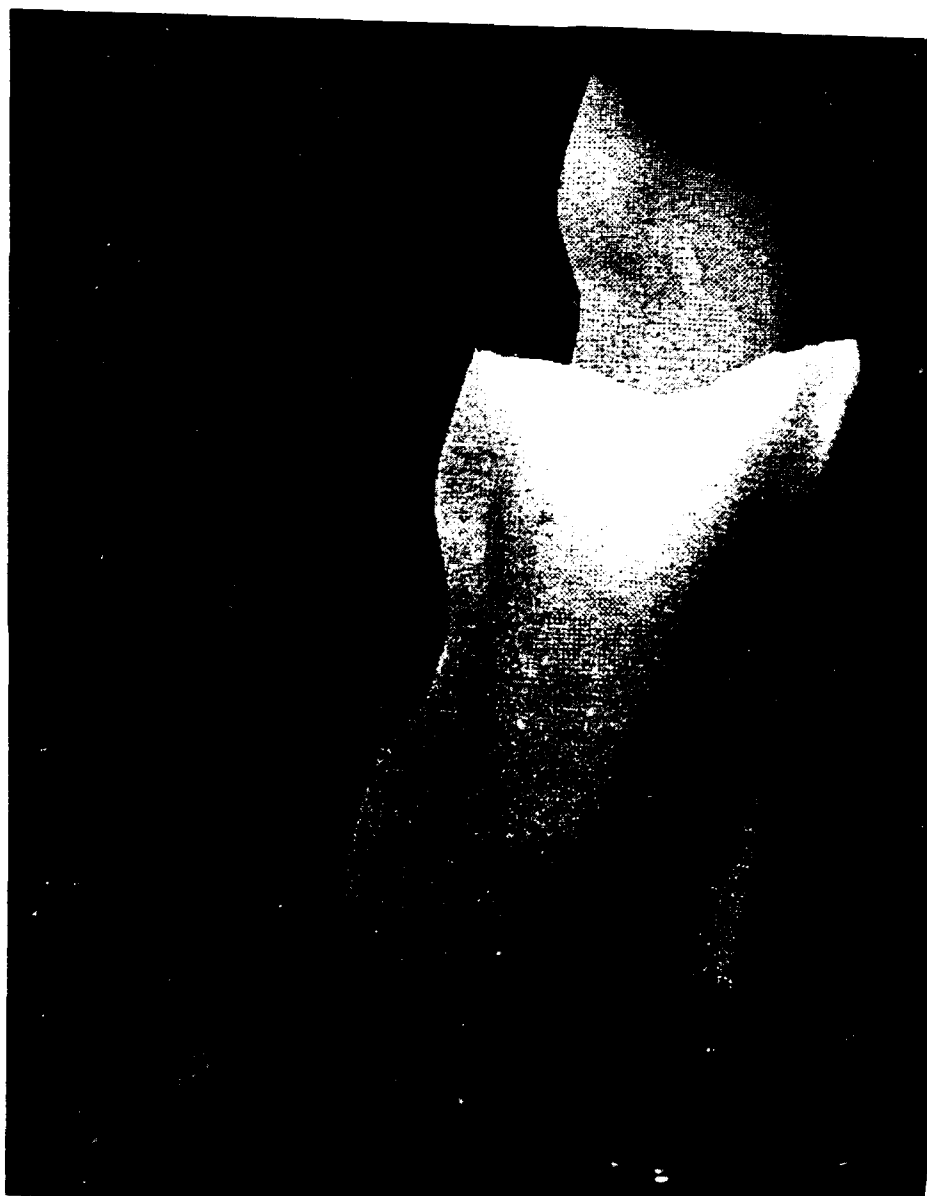


Fig. 14. Hydrostatic curves of form for 1853 survey



COMPUTER IMAGE SHOWING HOG
AND GENERALLY POOR CONDITION
OF 1795 HULL AS SURVEYED IN 1853

Fig. 15. Computer graphic image of 1853 survey showing hog and twist

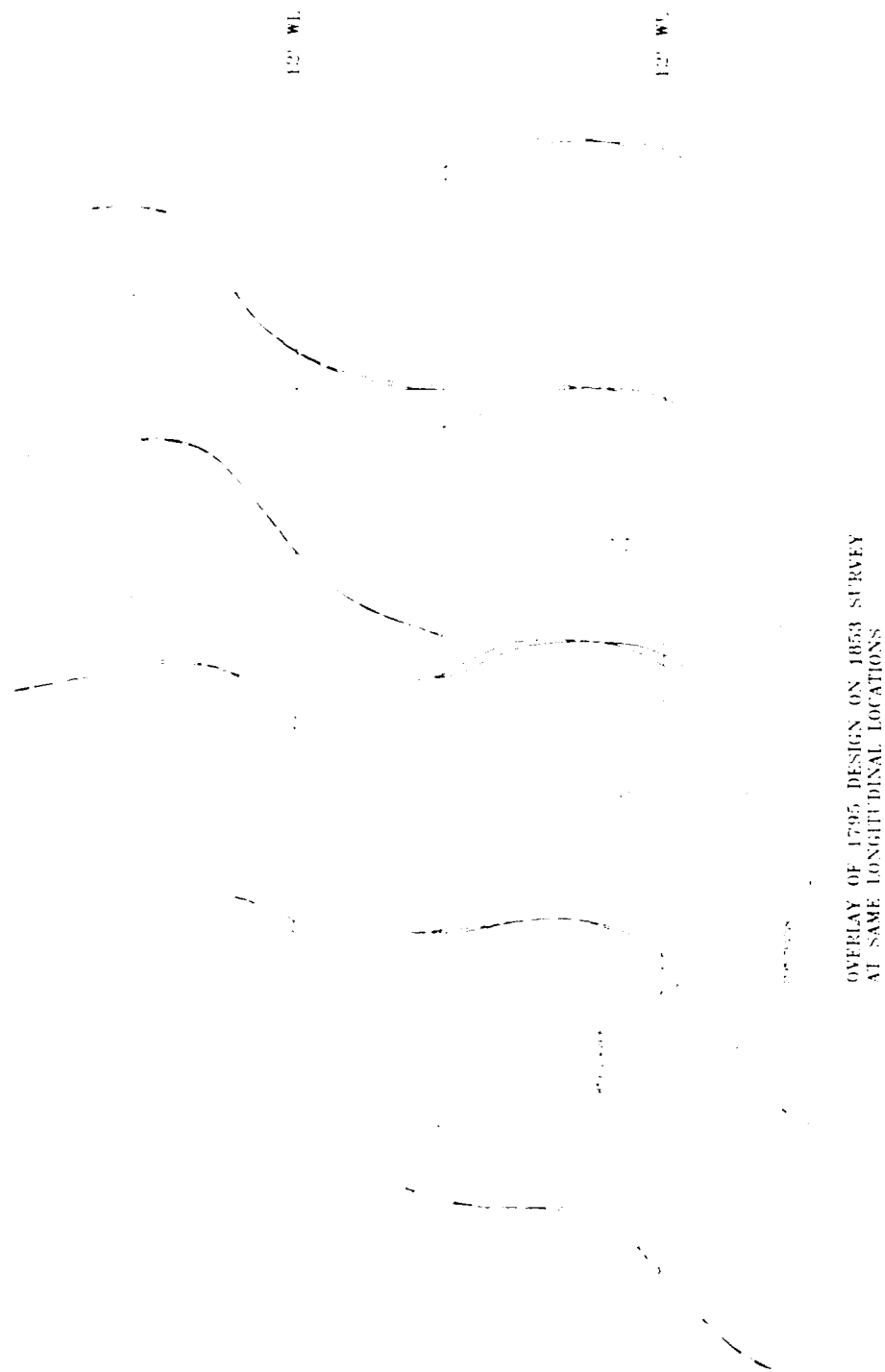
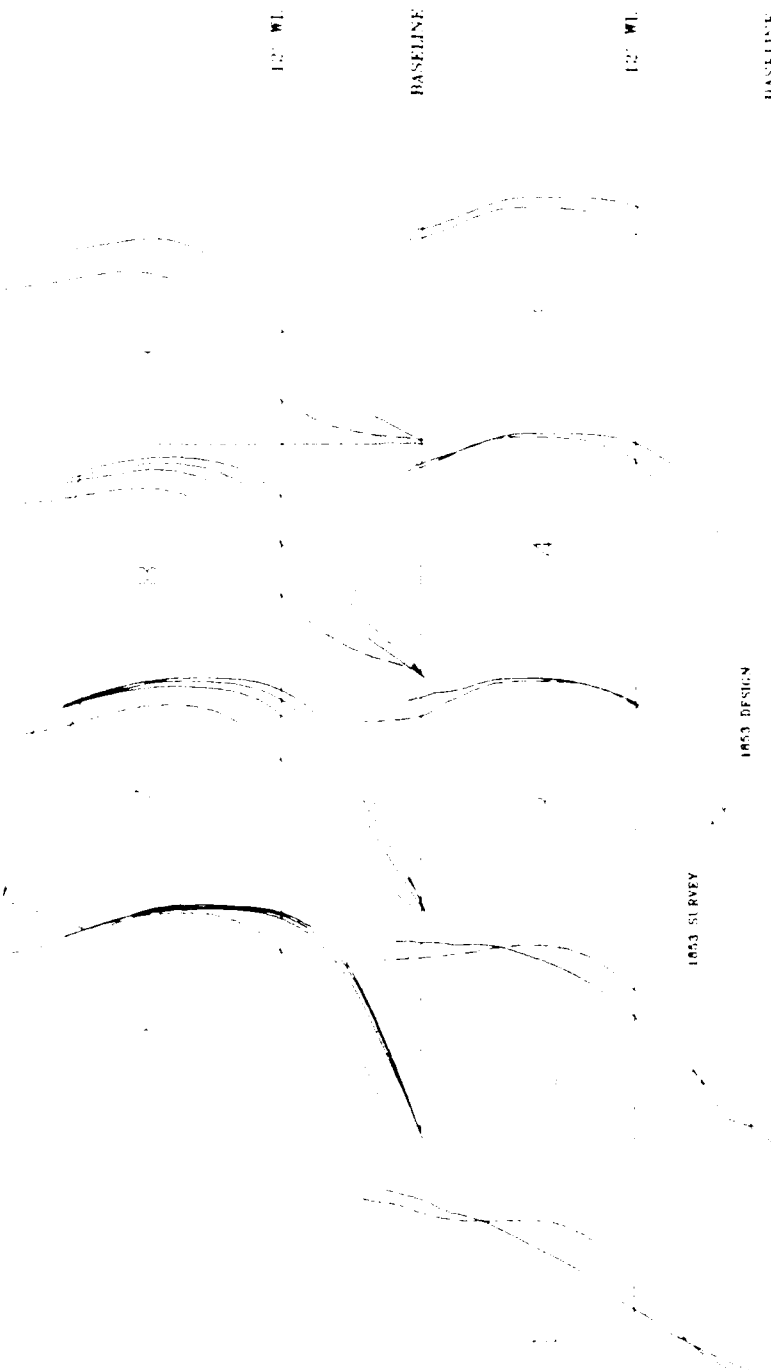


Fig. 16. Body plan of 1853 survey overlaid on body plan of 1795

SECTION CUT 6 FT WID AND 6 FT APT OF SURVEY
IN ATTEMPT TO FIND SIMILAR SECTIONS



OVERLAY OF 1853 DESIGN ON 1853 SURVEY
AT SAME LONGITUDINAL LOCATIONS

Fig. 16a. Body plan of 1853 survey overlaid on body plan of 1853

• • NOTE AS FRAME HAS BODGED OVER
50 PLUS YEARS IT HAS ALSO
MOVE OUTWARD AWAY FROM THE
CENTER LINE

MIDSHIP SECTION OF 1853 SURVEY
OVERLAID ON 1795 DESIGN

By 1853 the ship had shifted
outward from the center line
by 10 feet 6 inches

FRAMES TRANSPOSED TO SAME RABBIT LINE

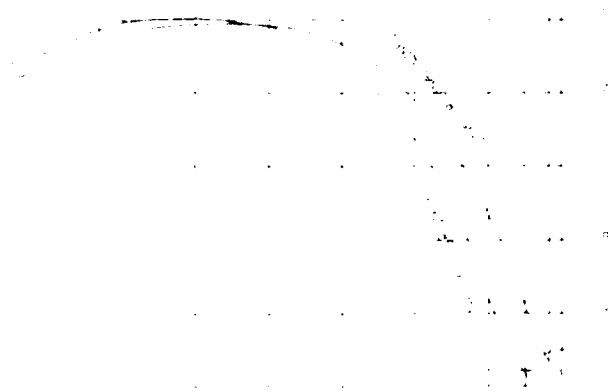
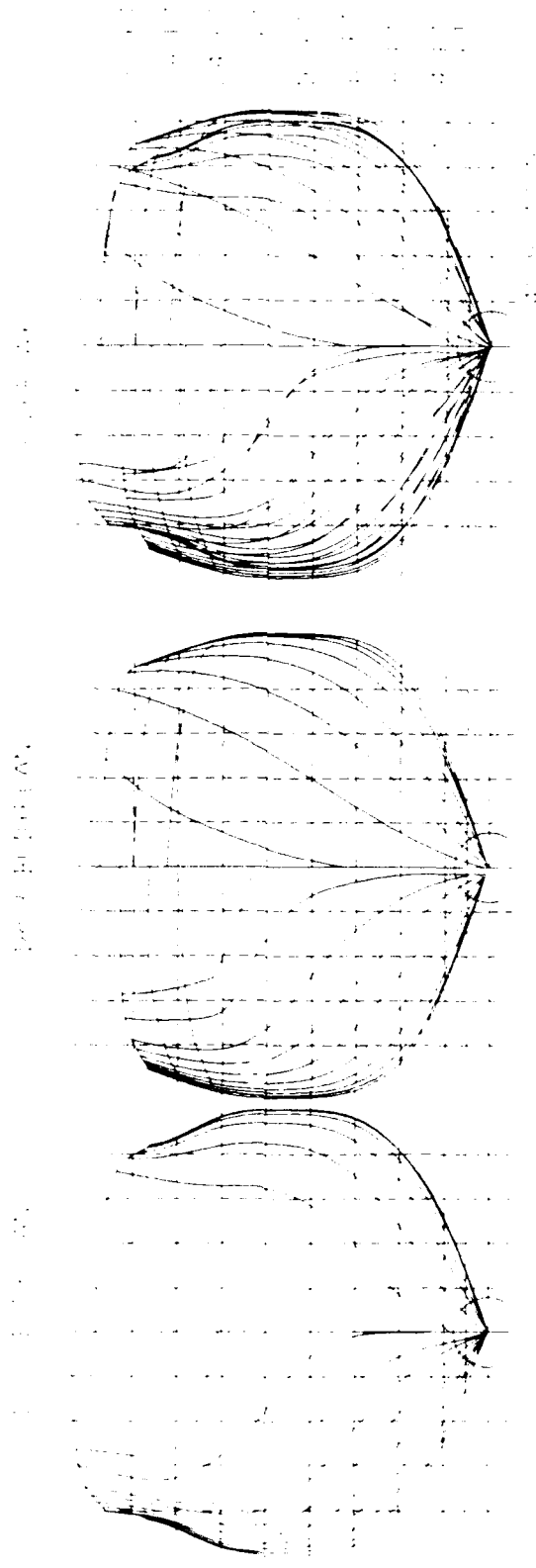


Fig. 17. Curves from 1795 and 1853 survey at same origin and rotation



BODY PLANS OF 1795 AND 1853 DESIGNS
 COMPARED AT SAME LONGITUDINAL LOCATIONS
 AS MEASURED FROM MDSHIPS.

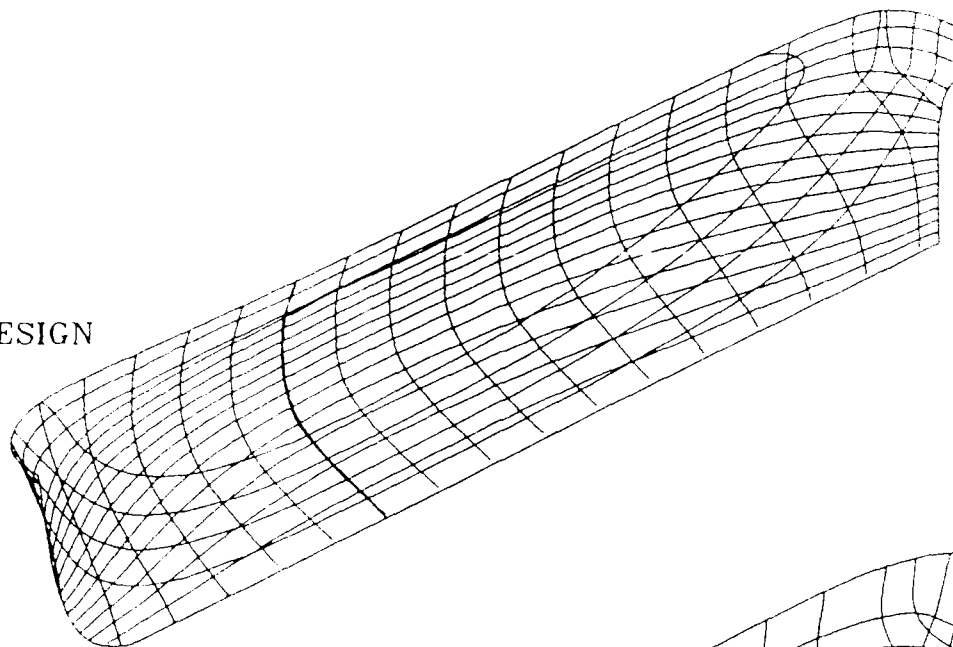
Fig. 18. Body plan of 1853 design compared with body plan of 1795



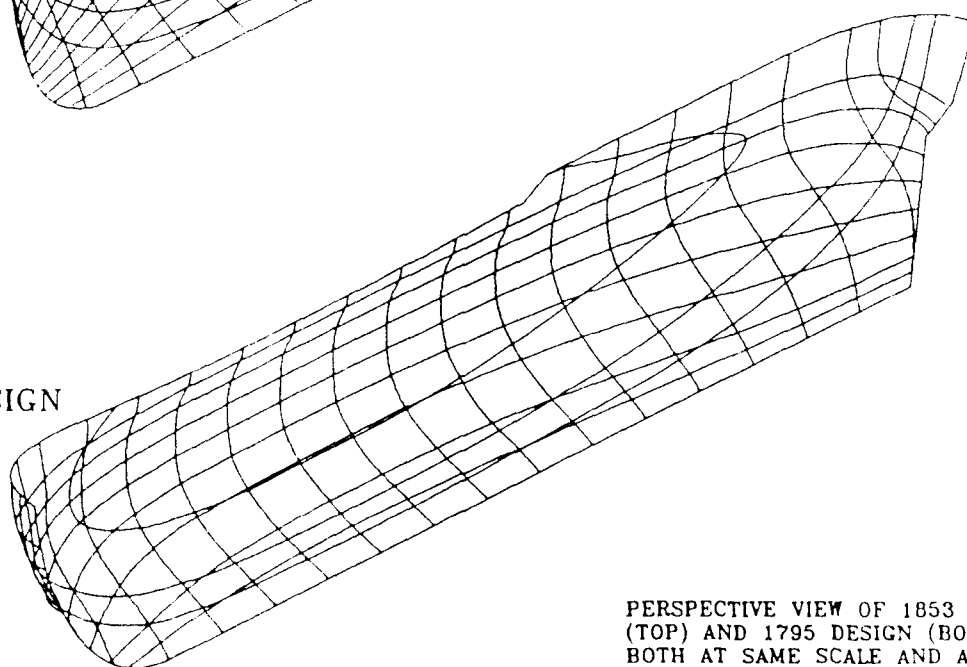
EFFECT OF LOWER CENTER OF GRAVITY ON G-Z MOMENT ARM
THE LOWER G IS IN THE VESSEL THE GREATER THE DISTANCE
G-Z THEREFORE THE RIGHTING MOMENT (OR RESTORING FORCE)
IS GREATER. VESSELS WITH LOW CENTERS OF GRAVITY WERE SAID
TO BE STIFF OR CRANK

Fig. 19. Effect of cg on transverse gm

1853 DESIGN



1795 DESIGN



PERSPECTIVE VIEW OF 1853 DESIGN
(TOP) AND 1795 DESIGN (BOTTOM)
BOTH AT SAME SCALE AND ANGULAR
VIEW.

Fig. 20. Isometric of both 1795 and 1853 designs

U.S.F. CONSTELLATION

1795 Hull Form

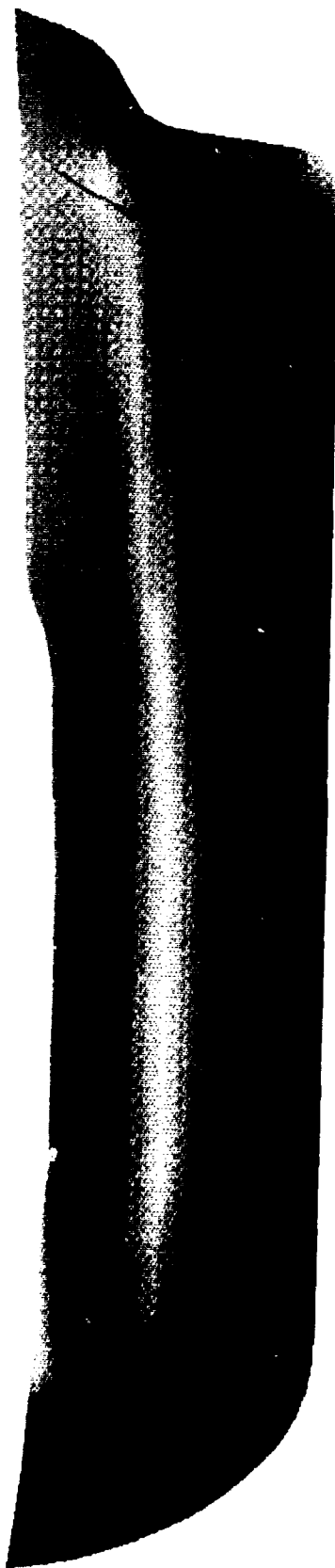


Fig. 21. Shaded image of 1795 design

U.S.F. CONSTELLATION

1853 Hull Form



Fig. 22. Shaded image of 1853 design

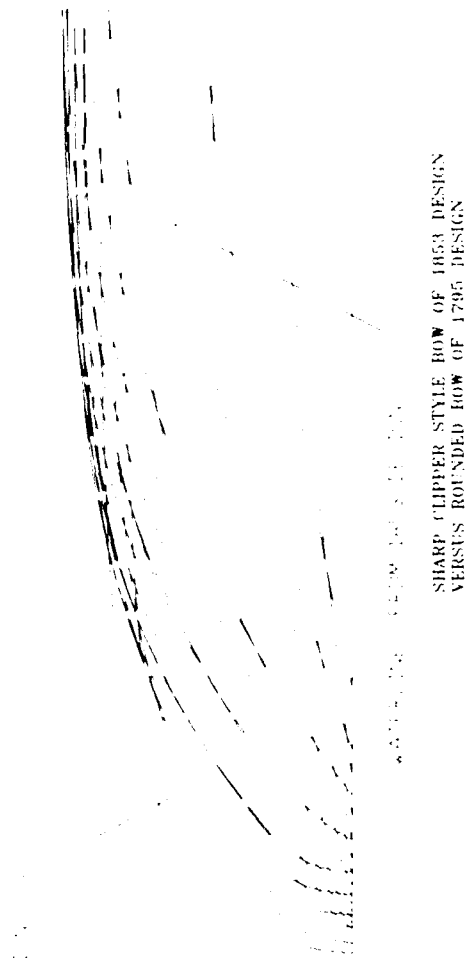


Fig. 23. Clipper bow versus rounded bow

NACA 0024 SECTION

12' WATERLINE 1795 DESIGN

NACA 4-DIGIT SECTION AS COMPARED
WITH 1795 DESIGN WATERLINE.

Fig. 24. NACA 4-digit section as compared with 1795 waterline

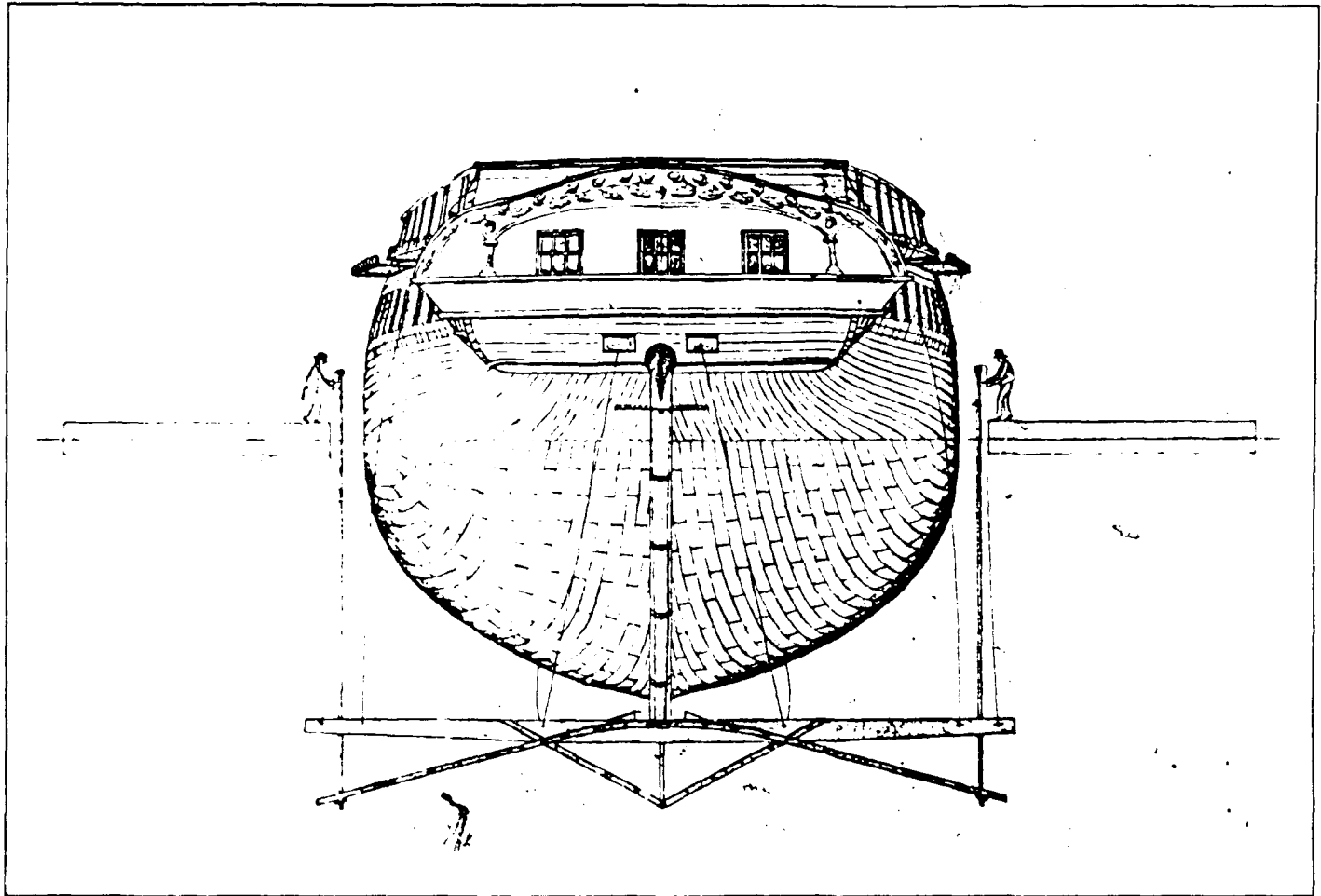


FIGURE SHOWS BARGES WITH UNDERWATER
BEAM FOR MEASURING HOG IN KEEL FOR
KEEL BLOCK PLACEMENT.

Fig. 25. System which measured keel line of ship while afloat

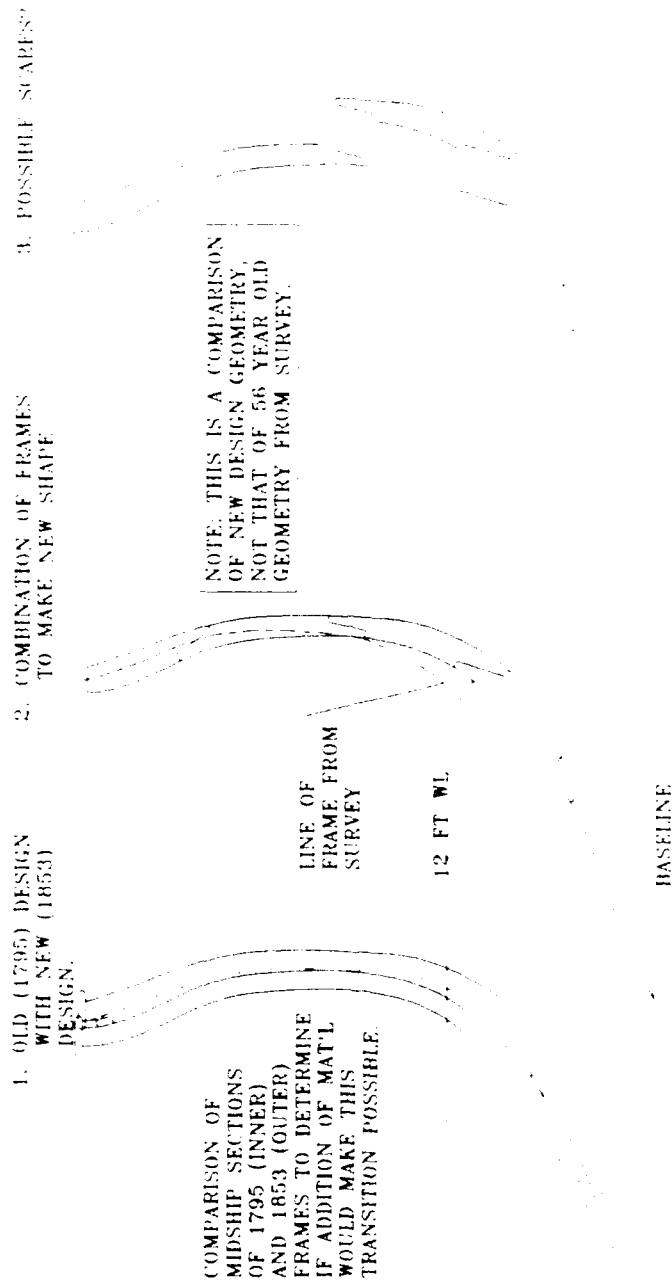


Fig. 26. Possible addition to make frame from 1795 similar to 1853 design

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