

# The Restoration of the Schooner Yacht *Coronet*: The Balance between Historic Preservation and Future Use

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## ABSTRACT

The restoration of the 1885 schooner yacht *Coronet* is an historic preservation project conducted on the campus of the International Yacht Restoration School (IYRS) in Newport, Rhode Island.

*Coronet* is the last remaining schooner yacht of her age, size and degree of originality—a magnificent example from the great age of yachting at the end of the nineteenth century. Launched in 1885 for American industrialist Rufus T. Bush, *Coronet* was built to cruise the world's oceans in comfort and style. Her interior included appointments such as mahogany-paneled staterooms, a grand marble-treaded staircase, stained glass doors, a main saloon with etched mirrors and gilded moldings, a cloisonné chandelier, a tiled heating stove, and a piano. *Coronet's* state of preservation is extraordinary, and her hull and interior are substantially original. Her remarkable record of ownership, extensive voyaging and survival from the 19th into the 21st century, make her a unique and internationally important vessel. The National Trust for Historic Preservation has recognized *Coronet's* importance by designating her as a Save America's Treasures project, and she has been awarded a place on the National Register of Historic Places, the first vessel in Rhode Island to receive that distinction.

*Coronet* is currently being restored to sail as she did in the late 19th century. Following IYRS's acquisition of *Coronet* in 1995, the process has included an exhaustive search through primary sources to document her voyaging history and extensive documentation of her as-found condition. Her interiors have been recorded and removed. The next phase will be to restore her hull and deck. *Coronet's* original structure will be retained wherever feasible, and both materials and workmanship will replicate the construction methods used when she was launched. Once restored, *Coronet* will serve as a floating museum and will replicate her historic voyages.

This paper will discuss the restoration process for *Coronet* with a focus on the documentation and research conducted to date. The considerations, debates and trade-offs made in restoring a historically significant boat with the goal of putting her back into operating use and “earn her keep” will also be discussed.

**C***ornet*, a grand schooner yacht that has survived from the 19th into the 21st century, is being restored at the International Yacht Restoration School (IYRS) and will sail again some day. Built in 1885, *Coronet* is the last remaining schooner yacht of her time, size and degree of originality in America—a magnificent example from the great age of yachting at the end of the nineteenth century. Her state of preservation is extraordinary, and her hull and interiors are substantially original. *Coronet's* record of ownership, extensive voyaging and survival to this point make her an historic vessel of unique and international significance—and well worth saving. (fig. 1)



Figure 1. *The Schooner Yacht Coronet: Reaching Off Soundings*, painted by John Mecray.

## The International Yacht Restoration School

IYRS was started by Elizabeth Meyer, who was responsible for the restoration of *Endeavour*, a famous J-Class boat that sailed in the America's Cup in the 1930s. During that project, Meyer realized that the talent and the skills needed to undertake a project like that were rare indeed and hard to find in the United States and, as a result, she founded IYRS in 1993. The school is located on a 2.5-acre campus on Newport's waterfront and is currently housed in a 1903 electricity generating plant. We also own a 1831 Steam Mill building that is being restored in order to provide more space for the school's programs. IYRS' two-year state-accredited program teaches the art and science of restoring classic wooden boats—both sail and power.

The first class of students was enrolled in 1995 and this past school year, there were full-time 32 students—sixteen first-year students working in pairs restoring eight Beetle Cats® and sixteen second-year students working in three teams – two restoring a pair of Manhasset Bay One Designs and the third team working on a Herreshoff S-Boat. We have also been expanding our continuing education and professional development courses to meet

the needs of the marine industry that faces a labor shortage. A marine systems training program for boatyard employees will be rolled out this fall, followed by an advanced joinery program. IYRS graduates are very much in demand by employers in the marine industry—both traditional and modern businesses.

IYRS' philosophy is one of preservation through use. We don't build boats from scratch and we don't build replicas. Rather we restore boats that would otherwise be lost. We use "like techniques, like materials," and ultimately the boats are put to like use, meaning that the boats we restore are returned to the water and are out sailing again. To date, IYRS has restored over 80 watercraft including Beetle Cats galore, Herreshoff S boats, 12½s and 15-foot classics and a number of wooden motor launches.

In addition to the boats that the students work on, we also bring in master shipwrights and graduates to do larger, more complex restorations. Waiting in the wings at the school are *Carina*, the Rhodes design that won the Bermuda Race in 1952, *Malay* (Concordia #2), and even Britton Chance's 5.5 meter in which he won an Olympic gold medal.

And then there's *Coronet*, IYRS' most ambitious project to date.

### The History of *Coronet*

*Coronet's* story begins with Rufus T. Bush. He was born a farmer's son in rural New York and early on, the family moved to Michigan. While Bush started his career as a schoolteacher in a Michigan farming community, he quickly switched and found his calling as an entrepreneur, as did many others in the late 19th century. Bush sold sewing machines and then set up a business where traveling clergymen sold retractable wire clotheslines to housewives, a venture at which he made \$30,000. Eventually Bush moved east and partnered with Walter Denslow to found Bush and Denslow Manufacturing Company in Brooklyn, New York. The partners developed a process for refining petroleum, were quite successful and eventually sold their company to Standard Oil.

After the Civil War, New York was the center of business and culture in the United States and a yacht was as important an asset and symbol of success as a townhouse on Fifth Avenue and a summer cottage in Newport. In 1884, a member of New York Yacht Club and already the owner of a 106' steam yacht, *Falcon*, but unhappy with the noise of her engines, Bush put forward a request of the design of a new schooner. He wanted it to be able to cruise long distances in comfort and style. Bush had already chosen where he wanted it built: at the C & R Poillon Yard located at the foot of Bridge Street in Brooklyn, New York. The Poillon Yard was best known for its pilot boats and working schooners. While the yard built and launched hundreds of boats, only *Coronet* has survived.

Bush was assisted in the review and choice of his new yacht by the captain of Bush's steam yacht *Falcon*, Christopher S. Crosby. After reviewing a virtual fleet of builder's models, they eventually settled on one submitted by Smith and Terry from Greenport out on the eastern end of Long Island. The boat was launched on August 17, 1885 at a cost of \$70,000.

*Coronet* was an impressive sight: 133 feet long on deck and 190 feet with her sparred length. She had a 27 foot beam, a draft of 12 feet and carried 75 tons of ballast and 8,500 square feet of sail area. Her frames were white oak, hackmatack and locust, her keel and planking white oak and her decks yellow pine. Down below, there were accommodations for 8 to 10 passengers and typically a crew of 10 to 12. The interiors were quite lavish with their carved mahogany paneling, stained glass doors, gilded Lincrusta wallpaper and even a marble staircase in the main saloon. She had hot and cold running water drawn from water tanks that could hold 2,200 gallons and a large icebox capable of holding three tons of ice.

For *Coronet's* inaugural blue water cruise in the summer of 1886, Bush took his family to England, reaching Cowes in 17 days. Then, on New Year's Day in 1887, Bush decided to test his new schooner by issuing a challenge to all comers to a race across the Atlantic for a prize of \$10,000. Bush's challenge was taken up by Caldwell Colt, son of the inventor of the Colt revolver, a fellow New York Yacht Club member and owner of *Dauntless*, built in 1866. When Caldwell Colt bought *Dauntless* in 1881, she had already made four transatlantic crossings. She was also nearly twenty years older than *Coronet*, smaller, lighter and with less sail area. Colt sailed aboard his yacht, while Bush waited out the race in his New York townhouse. After a stormy passage, *Coronet* crossed the line first on March 27th, with *Dauntless* finishing some thirty hours later. In the end, the race was won by the larger and more powerful yacht, even though *Dauntless'* best day's run was over 320 miles to *Coronet's* 290 miles.

After the race, Bush took her on a circumnavigation from March 1888 through April 1889. The first leg from New York to San Diego was one of the earliest Cape Horn roundings by an American-registered yacht. *Coronet* left San Diego on July 29, 1888 for Honolulu, where King Kalakaua of Hawaii visited on board. She then went on to Yokohama, Hong Kong, Singapore, Ceylon, Bombay,

Suez, Malta, Madeira and then finally returning to New York in April 1889.

A year later, in April 1890, *Coronet* had a new owner, Arthur Bateman. The president of Bateman and Company, Bankers, Bateman was responsible for the change of *Coronet's* black topsides to white. He also purchased a naphtha power launch. But at the same time that Bateman bought *Coronet*, his fortunes turned for the worse. A combination of mistimed investments in the railroads and poor health led him to sell *Coronet* in 1891 after only one year of ownership.

*Coronet's* next owner was John Wing, a principal in Wing and Evans, sole distributors of the Solvay Process, a glass-making process. 57 years old when he bought *Coronet* in 1891, Wing only owned her for two years but left behind an amazing photograph record of his family's time on board.

The next owner, Arthur Curtiss James was the best known of *Coronet's* owners (1893–1898). After graduating from Amherst in 1889, James entered the family business of Phelps Dodge and Company. Over the course of his career, the company greatly expanded its railroad interests and at one point had control of 40,000 miles of American railroads, one seventh of the nation's total. The company's rail investments were reported to have totaled \$350 million.

In 1893, his father made a gift of *Coronet* to his 26 year-old son. James made the most extensive use of the boat, including regular blue water cruises to the Caribbean and Nova Scotia. *Coronet's* role was expanded when James became the patron of a joint Japanese-American scientific expedition to Japan to record a total eclipse of the sun in 1896. James offered up both the yacht and \$20,000 to underwrite the expenses. Among those on board were Professor David Todd from Amherst, his wife, Mabel Loomis Todd (Emily Dickenson's publisher), and James's wife who, along with Mabel Loomis Todd, produced informative journals of the trip.

*Coronet* left from the East Coast in December 1895 and arrived in San Francisco in April 1896, where the James party joined the boat. After arriving in Yokohama in June, the scientific team traveled to Northern Japan to record the eclipse on August 9th, 1896. Unfortunately, clouds obscured the eclipse so no photographic records exist.

The next three owners, Fred Pearson (1898–1899), John Waterbury (1899–1901) and Louis Bossert (1901–1905), while influential men in business, did not leave much of a mark on either *Coronet* or the sailing world.

In 1905, *Coronet* was purchased by The Kingdom, a non-denominational religious group founded by Frank Sanford and headquartered in Shiloh, near Durham, Maine. For the first ten years, The Kingdom actively used her for missionary work around the globe with three trips to Palestine and the Holy Land in 1905, 1906 and 1907, and a circumnavigation from 1908 to 1909 (*Coronet's* second). *Coronet's* offshore sailing adventures ended around World War I and her sailing career in later years was limited to short coastal trips in Maine. She eventually landed up in Gloucester, Massachusetts, where the marine artist, John Mecray first saw *Coronet* in the early 1980s. When he went down below and saw the interiors, still virtually intact, he felt like he had stepped back 100 years and knew she had to be restored. Fifteen years later, *Coronet* had a new home at IYRS.

### Why Restore *Coronet*

People frequently ask, "Why bother to restore this boat?" *Coronet* played a significant role in American yachting and social history and the fact that she has survived with her original hull and interiors virtually intact make it possible for us to preserve this important part of maritime history.

It's particularly exciting that people outside the sailing world appreciate and have acknowledged her significance. *Coronet* has been designated a "Save America's Treasure" project by the National Trust for Historic Preservation and is listed on the



Jay Picotte

Figure 2. *Coronet* awaits the next phase of restoration.

National Register of Historic Places, the first vessel in Rhode Island to receive that designation.

The decision to restore a boat opens up a whole raft of knotty questions. Will she have modern engines and an electrical system? If the original materials used in her building are not now available for her restoration, can a substitution be made? If there is a more enduring way to rebuild her, can the shipwrights tap updated techniques and still call her an authentic restoration? If only a small percentage of the original fabric can be reused, is she still the same boat?

At IYRS, an advisory committee is put in place for each major restoration the school undertakes. The advisory committee includes maritime restoration experts, boat builders and historians. Key decisions at the outset drive choices made during the restoration. So the ultimate end use needs to be decided before the physical restoration begins. The goals for the restoration of *Coronet* are consistent with the IYRS mission, so there is no question that she will be out sailing again.

The second key decision is the selection of a target date to which the boat will be restored. While it is not necessary to go to the day she was launched, it is key to stay true to all known evidence of the time period selected. The early 1890s has been selected as the target date for *Coronet's* restoration. By then she had completed her sea trials and completed her first circumnavigation. She was young enough to be close to her original form, yet experienced enough to tell an interesting story. That means we have also made a couple of other decisions. She will not have engines and she will probably not have electricity on board.

The decision-making and guidance is based on the Secretary of the Interior's Standards for Historic Vessel Preservation Projects that also includes guidelines for applying the standards. In order to return *Coronet* to her original 1890s state, we have been determining what was done to her, when was it done and why. It is fairly easy to figure out what was done in 1940 for example, but harder to determine what was done in 1890.

Luckily, there is a wealth of information to draw on—photos, log books, articles, journals, and artifacts. What we don't have are any of the original plans or records from the Poillon yard. So the search through other sources is very important. We also have the benefit of a group of people who have a personal connection to *Coronet*. Their ancestors sailed on board or were connected to the yard that built her. So *Coronet* is a live and tangible connection to their own family histories and they have provided us with photographs, oral histories, and written documents, all of which have aided in reconstructing *Coronet's* history.

Without the original plans, the role of the builder's model becomes important. Through a fair amount of sleuthing, we have ascertained that the ½" scale model hanging in New York Yacht Club is the original builder's model. The model has been surveyed and the lines pulled from it. So we now know her original shape—although there is some speculation that the transom was altered when built.

Beginning in 1999, there has also been an extensive project to measure, record and document *Coronet's* as-found condition and in the process, to search for clues on alterations, repairs and in some cases, original construction. For this, we have relied on the expertise of Richard Anderson, an industrial archeologist. Essentially an "architect in reverse," Anderson has undertaken the painstaking process of documenting every inch of the inside and outside of *Coronet*. He has generated 200 sheets of field notes that have in turn been converted to CAD files. These will serve as the assembly manual or set of instructions to help put the boat back together.

Another avenue has been to examine similar vessels from the period and vessels from the same yard in order to record their construction techniques and materials with the assumption that they would be similar and serve as a useful guide for the restoration of *Coronet*. As of 2002, there were only two known boats from the Poillon Yard still in existence, *Coronet* and the *Thomas F. Bayard*. The *Bayard*

*yard* was launched at the Poillon Yard in 1880. But, unlike *Coronet*, she went through several different lives, first as a pilot schooner in the Chesapeake, then as a supply ship to the Yukon for the Gold Rush, then as a sealer, and finally as a lightship in Vancouver, British Columbia. In 2002, she was still at a dock in Vancouver, albeit in a sorry state.

With the help of Mystic Seaport and the Vancouver Maritime Museum, a team went out in September 2002 to survey the *Bayard*. Unfortunately, in the wake of a storm, she had sunk two weeks earlier. However, it was possible to bring up sections of the hull and the team was able to document her structural configuration details, scantlings, wood and fastenings.

The sourcing of materials also presents an interesting challenge. The wood available 120 years ago to build *Coronet* is not as readily available today. However, in early 2003, Elizabeth Meyer approached the Royal Danish Forestry Service to request Royal Oaks for the project. Planted in the seventeenth century by the command of King Christian IV to provide timber for the Royal Navy, these 350 year-old trees are individually registered and reserved for special projects by the Danish Crown. A team from IYRS selected each of the 24 Royal Oaks, which were felled and milled to a 3" thickness for use as planking in *Coronet*. The four shipping containers full of these planks were shipped to America and are now stored in Rhode Island as they slowly dry.

The interiors have been removed and every piece has been tagged, photographed and logged. *Coronet* was hauled from the water in April 2004 and is now enclosed in a 200 by 60 foot protective structure. The shelter also houses a walkway around the boat at her deck level so that the public is able to watch and learn more about her as the restoration progresses.

### **What's next?**

The next phase in the project is the physical restoration of the hull and deck. This phase will provide

a set of interesting challenges for the shipwrights. They will start to take the original decking and planking off and essentially let the boat loosen up. By removing the deck and planking, the boat will be limber enough that the shipwrights can start to wrestle, push and pull the boat back to her original shape. (fig. 2)

If there were a different way to reconstruct *Coronet* to make her shape endure for more than 120 years, would the advisory committee consider it? There are boats constructed that merge Old World styling with modern methods. However, at present the committee is resolved to adhere to her original construction techniques.

As to how much of the original material will be saved, much of that can't be answered until the shipwrights start to take the boat apart. While much of the original interiors are intact and will be reinstalled, the hull and deck have suffered from wear and tear and years at sea. But for every piece that is not used, the guiding tenet will be to replace like with like. It does beg the question "if much of *Coronet's* hull is new material, is she still the same boat?" The committee's take on it is that as long as there is a recognizable form of the hull, it is still the same boat.

When *Coronet* is restored, she'll sail once again, visit major maritime centers on the east coast and replicate her historic voyages and cruises to the Caribbean and the Mediterranean. It will take years, much hard work, funding, and the talents of many to return her to her original glory. It is important that we succeed—and maybe John Mecray best explains why: "*Coronet* has a wonderful history. And to let this boat go would be like saying, 'Let's take the *U.S.S. Constitution* out and sink her.' This boat *must* be saved."

All of us at IYRS can think of nothing better than having *Coronet*, sailing under full sail again out on the water.