

Best Laid Plans

Thank you Bob for that gracious introduction. Well, good evening gentleman, I'm very honored to present my 3rd essay to Kit Cat. As Jim pointed out last month there are two types of essays. Those that propel the essayist to new knowledge and scholarship and those that cover old and maybe familiar ground. I have to admit at the outset that my essay tonight falls into the latter camp. Not that I didn't learn anything in the process or that I hope you will. But tonight instead of talking about network theory or trying, *à la* James Burke, to connect all the essays given that year. But tonight, I just want to talk about something I love dearly. Have loved as long as I can remember and hope that I can interest and inform you about something that you might not have know about before tonight. Sailing and sailboats. also, I'd like to dedicate this essay to Tad Jefferies, not because Tad was a sailor, at least that I know of, but because much of my essay is also about a specific manufacturing company.

One note at the beginning, I have tried to keep sailing terminology to a minimum but it still creeps in, I apologize in advance. As Roger Angell, the past fiction editor of the *New Yorker*, well know baseball writer, and fellow sailor writes, "Although the argot of sailing, to my ear, is not much more arcane then that of golf or cooking or opera or flytying. But say sloop, close-hauled, starboard or tiller or murmur halyard, jibe headsails, genoa and the rest with any familiarity and you are instantly seen as a dilettante, a poseur or a snob, a millionaire, and almost surely, a Republican."

I have sailed all my life. I grew up on two lakes in Northeast Ohio sailing Sunfish. I spent many of my summers in Maine sailing. I have always thought of it as one of the finest thing in life to do. A sailboat is one of the most perfect means of transportation. When under sail you move on the purity of design alone. On a steady point of sail there are no moving parts only Dacron and canvas, wood or fiberglass set in specific relationships to the wind and the water and like magic you move. At least it has always struck me as a kind of magic. A triumph of design and human ingenuity. I once had the privilege of traveling almost 200 miles on one tack, over 2 days we locked down the wheel and just moved as on wind and thought alone, amazing!

I think a finely designed sailing boat is arguably one of the most beautiful objects made by man. Graceful, sleek, powerful, it is a complex object designed to balance between water and air and reconcile and harness those elements for man's means and pleasure. And tonight I want to talk about the man who made what I think were the most beautiful sailboats ever designed. **Nathanael Green Herreshoff**, the Wizard of Bristol and quite probably the most brilliant naval architect this country has ever produced.

Nat Herreshoff was born on March 18, 1848 in Bristol, Rhode Island. The youngest of three brothers, he was born into a family of recreational sailboat designers and racers. The Herreshoff boys grew up building, sailing and racing boats. In the 1850s and 60s in Rhode Island you simple didn't go out to the boat show and order a boat. You looked at

the boats around you, you sailed them, you figured out what you liked, and learned how to build one for yourself. These were simple small craft but Charles F. Herreshoff, Nat's father was an avid sailor and racer on Narragansett Bay known for his fast designs and in the 1850 and 60s the name Herreshoff was well known in the Narragansett waters for skilled sailing and fast boats.

In 1867 young Nat entered the Massachusetts Institute of Technology where he graduated with a degree in Naval Architecture and Mechanical Engineering. After a few years with other firms he was convinced by his older brother **John Brown Herreshoff** to return to Bristol and form the Herreshoff Manufacturing Company. John Herreshoff seen here is an interesting figure and central to Nat's success. In his teens John became totally sightless and became obsessed with success in business. He settled on boatbuilding as a career and in 1878 convinced his brother to return to Bristol to form the Herreshoff Manufacturing Company. Nat provided the engineering expertise and John provided the business expertise, managing the firm's personnel and interacting with clients. Together, they grew the business from about twenty employees to over 400. **Here is an image of the Herreshoff yards in 1882. The North Construction shop in 1891.** In these post Civil War years there was no shortage of work, especially with the flourishing fishing, yachting and the United States Navy all within a few miles of Bristol. Although ultimately the Herreshoff brothers' worldwide reputation grew from designing and building sailing yachts in these early years steam yachts, commercial vessels and naval craft were equally important products. **Here is an image of the machine shop in the 1890s.**

However, from the 1890s onward the Herreshoff Company became synonymous with fine, fast sailing yachts.

Between 1890 and 1938 Nat Herreshoff designed well over 2000 craft and produced more than 18,000 drawings. **Here are 2 images of Nat Herreshoff design studio and model building shop in 1930s shortly before he retired.** Designs would start with drawings, move to half models seen here, before sailing models and finally full-scale plans were drawn up and lofted.

Designing and building yachts for wealthy American clients, including Jay Gould, William Randolph Hearst, John Pierpont Morgan, Cornelius Vanderbilt III, Harry Payne Whitney and Alexander Smith Cochran became the Herreshoff brother's business.

In addition to designing boats Nate Herreshoff developed a host of marine hardware that is taken for granted today such as the turnbuckle, sail tracks and slides, folding propellers, mast tangs, and the modern wench to name a few. He held the first patent for a catamaran, developed modern sail construction, many production methods for light wooden hulls that are still used today and developed the first handicapping formula (the Herreshoff Rule) to allow boats of different sizes and types to race together. I could go on and on. But his most important contributions are those amazing sailboats so beloved that many are still in the water 100 years later.

We don't have time tonight for me to talk about even 10% of those boats so I have chosen to concentrate on 3. (Really one group and two specific models.) From the largest and most impressive to the smallest and most endearing.

Nat Herreshoff designed and his company built every winning Americas Cup boat from 1893-1934. 5 in all.

Starting with *Vigilant*, which was a steel and bronze center board sloop, 124 Ft in length with 138 tons of displacement. Nat Herreshoff captained this boat himself and she beat Lord Dunraven's British keel cutter *Valkyrie II* to win the cup in 1893.

Next came *Defender* in 1895 a 123Ft sloop with 151.5 tons of displacement. *Defender* was built of Aluminum above the waterline, a very experimental thing in 1895 that unfortunately caused her breakup by 1901 because of the galvanic corrosion.

Columbia defended the cup in 1899 and again in 1901 she was 131 ft. 148-ton Sloop built for J. Pierpont Morgan and crewed by sailors all from Deer Island Maine. (This is where I summer every year) Both these against Sir Thomas Lipton, surely the persistent and unlucky Americas Cup competitor with 5 entries between 1899 and 1930. All losers.

Some of you who spend time in Nantucket or Martha's Vineyard might be familiar with *Shamrock V* the last of Sir Thomas's entries.

In 1903 Herreshoff built a truly amazing boat *Reliance* to defend the cup. It was and still is the largest single-masted sailing ship ever built. At 201 ft. stem to stern she displaced 189 tons and flew over 16,000 sq. ft. of sail. By comparison that is the equivalent of eight of today's 12-meter yachts, which sail in the America's Cup. It took 64 men to crew her. Here she is going down wind with her spinnaker set think, and I think this image gives an idea of that vast expanse of sail. Her spinnaker pole was over 86 ft long and weighed over 1000 pounds.

And finally *Resolute* built in 1914 but due to postponement during World War I didn't win the cup till 1920. *Resolute* was 106 ft. with a displacement of 105 tons. Because of the freakish size of *Reliance* new rules were put into effect that limited the size of America's cup boats. Robert F Kennedy named his iconic sailboat, *Resolute*, in 1964, after the America's Cup yacht.

The Herreshoff yards went on to build 3 more winning America's Cup boats but none designed by Nat Herreshoff.

It is an amazing run of racing design that has never been equaled. If it were only these America's Cup boats Nat Herreshoff reputation would be cemented into nautical history but there is so much more and I have chosen to focus on two additional designs that I

think give a fuller picture of Nat Herreshoff's genius and that have gained almost universal acclaimed and respect. I have personal connections with both, the New York 30 and the 12 and a half.

New York 30

Rather than show you pictures of the New York 30 I 'd like to share a video of what it's like to be sailing one of these classic-racing cruisers. [Start video](#) This video was shot aboard the very first New York 30 ever built, Aleria. The footage was shot on Eggamogin Reach in Maine right off of Center Harbor where I moor my own Herreshoff Bulls eye. I have sailed these waters all my life and love this place probably as much or more than anywhere else in the world and I hope this gives you some of the thrill it gives me to see it on this cold February night.

Aleria today is owned by Claus Van der Land, and sailed out of the Benjamin River. The harbor at my brother's home in Sedwick Maine. That's Claus right there.

The New York 30s are what are called racing-cursors. Fast responsive boats that are also capable of sleeping a small crew for few days of cruising up and down the coast.

In 1904 18 identical gaff rigged sloops were designed and built for deliver in 1905, these are wooden boats. All these boats were original built for members of the New York Yacht Club. hence the name, New York 30. The ideas was that they would all race against each other.

They were popular right from the start. Hansom and wonderful to sail they are to my eye the classic yacht. 43 1/2 ft. long with a water line of 30 ft. her boom is longer then her water line at 33ft. a very different profile then most modern cruising boats.

Legend has it that a New York 30 never needed to be reefed. The harder it blew the better they liked it, you would simple pull the jib in tight and let out mainsheet to back-wind the main and create a little bubble.

This boat is so beloved that of the original 18 built in 1905 12 are still sailing today 111 years later! But boats ware out in time and the boat we are looking at right now was restored at Booth Bay Harbor Ship Yard in 2005.

Of the New York 30 Olin Stephens, another famous boat designers said, "The New York 30, in my mind, is the most perfect boat.... And the one I most wished I had designed"

This brings us to the last piece of Herreshoff history. I have worked in this essay from the most grand to now the most modest. But in it's modesty probably the most influential and certainly the most long-lived. It's also, not incidentally the closest to my heart. The Herreshoff 12 and a half. No other sailing boat that I know of has had the

longevity and loyal following. At least not where I sail. I also have to give fair notice that I own and love one of these very special boats.

[Nat Herreshoff](#) designed the 12½ footer in 1914. [Here is an image of Robin the very first 12.5 taken in 1914 in the north construction shed, and one of Robin off of the Herreshoff yards.](#) Originally called the Buzzards Bay Boys Boat. the 12 and half were designed to teach the children of yachtsmen how to sail. Here are two images from the Herreshoff yard. [The first of 12 and a half's in production, this next I love, it's a bunch of 12 and a half's tucked in under Resolute keel in 1914 or 15.](#) It has been in continuous production since 1914, Think about that gentleman, a product that was designed 102 years ago and is still in demand in essentially the same condition it was delivered in in 1914. A new Herreshoff 12 and half can sell for upwards to \$36,000 today. That's not an antique boat but a new one. [Here is a advertising image for a new 12 and a half made by Artisans Boat Works in Booth Bay Maine and a image of one in production. I think it's interesting to note the similarities between the contemporary construction image and the one from the Herreshoff yards taken in 1914.](#) It is nearly universally acclaimed as one of the finest small boats of all time. Herreshoff was 66 years old when he designed the 12 and a half, and had all the experience from a full and legendary career of designing and building yachts.

Between 1914 and 1943 Herreshoff built 364 wooden 12 and a half's. Following the closing of HMC production, the Quincy Adams Yacht Yard was licensed by HMC to build the design. Quincy Adams used the Herreshoff builder's plate, and built 51 hulls from 1943 through 1948.

In 1948, Cape Cod Shipbuilding acquired the rights to the design. They built about 35 wooden hulls between 1948 and 1950, when they switched to fiberglass. You can still get a new fiberglass 12½ from Cape Cod Shipbuilding today. Phone 508 295 3550 tomorrow morning. You will never regret it. Cape Cod Shipbuilding also brought out a modification of the original, designed by Nat's oldest son, Sidney. Called the Cape Cod Bulls eye, it is a fiberglass version of the 12½ hull with a small cuddy cabin. This is the boat I own. And since 2006 the Herreshoff 12½ is once again available in wood from Artisan Boatworks of Rockport, ME.

It's a great little boat. [If you look at a 12½ out of the water,](#) you can't help but notice the seductive shape and subtle reverse curves of her underbody. It is thanks to this shape that the boat can ghost along so well in only the lightest breath of air while all the other boats in the water stand still. Or take the hardest blow and not be knocked over. The helm balance is perfect. Well-mannered, roomy, dry, and seaworthy largely due to their heavy lead keels. Some of my happiest hours have been spent in this little boat. My sons have learned to sail in it, [my oldest son Lyle out for a sail in 2002 and again in 2015.](#) and I hope they will teach their sons to sail it. [Here are a last couple of images of my family and our good friend out sailing.](#) In a Herreshoff 12.5.

I'd like to conclude with a short quote from Roger Angel, about sailing in his own Herreshoff 12 and a half from the same harbor I sail from, Center Harbor in Brooklin Maine, Roger and I are both members of the Center Harbor Yacht Club.

"here I am still aboard Shadow and thinking about the pleasures at hand. Even at this easy level. I am dealing with shifts and forces and counter flows--- wind and tide and current---that are nearly invisible to the non-sailing friend I have brought along this time, who now that the wind has freshened looks at me with dislike, because I am in another realm, a medicine man in a baseball cap. What the landsman senses and perhaps envies is exactly what grabs me at odd moments in a small boat in August. Here- for the length of this puff, this lift and heel- I am almost in touch with the motions of my planet: not at one with them but riding a little crest and enjoying the view."

Thank you.