Monday Maritime Matters

Description

Today will not be devoted to some hero who had a ship named after them, but rather to a particularly American tree that made a difference in our early history. Yesterday, I posted about the famed battle between the USS CONSTITUTION under Captain Issac Hull and the *HMS GuerriÃƒÂ¨re* commanded by Captain James Dacres. That 25 minute battle, resulting in an astonishing one sided victory for the American Navy was, in part, due to the foresight of the US Navyâ€™s first shipwright, Joshua Humphreys (whoâ€™s story led off this series of Monday postings).

Quercus virginiana, better known as â€œLive Oak,â€• was a specific ingredient in the building of our first six warships.



Angel Oak, Johnâ€™s Island, SC. Photo Credit: Ã‚Â© Cedric Baele

> The tree, which is a live oak, Quercus virginiana, a species prevalent in the sea islands of South Carolina, is 65 feet high and has a circumference of 25 feet. While its height may not be impressive, the shaded area covered by its foliage extends over 17,000 square feet, making it a delightful place to catch some shade in the summer months.
>
> One of its largest limbs is 89 feet long, with a circumference of 11.5 feet.
> [â€¦]

Why this type of wood for our ships? According to the research of Ian Toll, author of â€œSix Frigates,â€• it has to do with itâ€™s strength, resistance to salt water, weight per cubic foot up to 75lbs,

among other fine qualities:

> Humphreys was exacting in his specifications. The beams and decks would be made of Carolina Pine, he wrote, and the planks of red ceder. But most important,-here he was both explicit and insistent-key pieces of the frame, including the futocks, knight heads, hawse pieces, bow timbers, stanchions, knees, transoms, and breasthooks, must be made of live oak.

So where does one get this wood? Along the coasts of the US, from Virginia to eastern Texas. What type of coast line does this mean? Swampsâ€¦.mud that sucks leg into the ankle or knee when itâ€™s nice and wet. Mosquitoes, and all sorts of others vermin that make men deathly ill in the living conditions of the late 1700â€™s. But, as we know, it made itâ€™s way into the ships.

â€œMoulds,â€• that were actually full sized models of the finished pieces were laid out at the building yard from light wooden battens. These models were taken into the swamps to determine which trees would yield a match to each model.

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Getting these trees became an monumental task. First to strike out in August 1794 to the coast of Georgia was a Boston shipwright named John T. Morgan. His hopes were to then be assigned as one of the master constructors. All support would have to come the camp by sea and soon, no wood was collected and most of the party was disabled with disease, most likely malaria. Soon, no amount of money could entice the workers, of the original 90 from New England, who had not died to remain.

in late October, Captain John Barry proceeded to Georgia to assess the situation. He found the camp inhabited by sick men. He sent for reinforcements. Slaves from the local area were used to help clear a road to the best timber and work commenced. The trunks and branches were floated and/or drug from the swamps by teams of oxen and did eventually get to Philadelphia, albeit 6 months late for the work schedule.

While this wood is an excellent material for ships at sea, it is not what shipâ€™s caprenters like to see hauled into the building yards. From â€œSix Frigates:â€•

> BUt the shipyard workers also dreaded the extra work it took to cut, shape and manipulate live oak, and they rolled their eyes whenever a new load of raw timber sections was brought into the yard. A nail driven into it was nearly impossible to extract. Axes bounced off it and saws moved back and forth across it again and again, making little or no discernable progress. Nothing took the shaprness out of a ship carpenterâ€™s tools as quickly as well seasoned live oak.

So, there is a salute to another American resource, this time a natural and not human one, that earned the USS CONSTITUTION the nickname â€œOld Ironsides.â€•

I had often wondered about this, as I was homeported in Charleston in September 1989 when Hurricane Hugo devastated the area. I recall there were a number of large live oaks that the storm toppled, mostly due to the wet ground, that no longer afforded a secure hold for the roots. The comments in the news reports were the salvaged limbs and trunks would be useful in maintaining old sailing ships, the complete significance I did not understand until reading â€œSix Frigates,â€• and

finding the story of the decisions and the effort to get this type of wood for ship construction.

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