Iron vs. Oak

When the currents of history and technology collided off Hampton, Virginia, in March 1862, naval warfare changed forever.

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On a peaceful Saturday in early March 1862, the oddest ship anyone had ever seen lumbered into the great watery junction north of Norfolk, Virginia, known as Hampton Roads. Roughly 280 feet long from the iron ram at its prow to the thudding propeller at its stern, the black leviathan carried neither masts nor sails common to ships of the day, only a large smokestack, some pennants, and the starred banner of the Confederacy. It looked, according to one Union sailor, "like the roof of a very big barn."

As the vessel steamed west to where the James River empties into the Roads, two powerful Union warships blockading the river cleared their decks for action. With their tall masts, clouds of sail, and gun decks bristling with cannon, wooden men-of-war like the U.S.S. *Congress* and U.S.S. *Cumberland* had ruled the seas for centuries. Lt. Joseph Smith, the young captain of the *Congress*, confidently steeled his men for the coming fight: "My hearties, you see before you the great southern bugaboo, got up to fright us out of our wits. Stand to your guns, and let me assure you that one good broadside from our gallant frigate and she is ours!"

The great southern bugaboo, otherwise known as the C.S.S. *Virginia*, plowed onward, one sailor recalled, like "the horrid creature of a nightmare." When the enemy ship came within a few hundred yards, Smith unleashed a broadside from more than 20 cannon that would have devastated almost any other vessel afloat—only to watch the shot and shells bounce off the *Virginia* as if they were marbles. Smith looked on in horror as the iron beast ran four large cannon out its gunports and fired, instantly turning his trim ship into a slaughterhouse. The nightmare that was the Battle of Hampton Roads had begun.

Anyone who muddled through eighth grade history class will likely remember the Battle of Hampton Roads as the battle of the *Monitor* and *Merrimack*, the first clash between ironclad warships. But that famous engagement took place on the second day of the battle. On the first, the South won a furious arms race to get an ironclad to Hampton Roads, proving in deadly fashion the superiority of iron over oak.

Originally a wooden Union frigate, the *Merrimack* (often misspelled *Merrimac*) was burned and scuttled near Norfolk at the outbreak of the Civil War to keep it from falling into Confederate hands. Southern shipwrights raised and recycled the vessel's hull and machinery into a formidable engine of war, the ironclad C.S.S. *Virginia*. To counter the threat to its wooden fleet, the Union commissioned its own ironclad, the U.S.S. *Monitor*. Outfitted with the world's first rotating gun turret, the *Monitor* was a technological marvel—despite looking, as one skeptic put it, like a "tin can on a shingle."

The two vastly different ships were riding a wave of technological change sweeping through the world's naval powers, ushering in steam engines, large rifled cannon, and ships armored in iron plate. But the battle was more than a test of technology. Control of the Roads was critical to Lincoln's blockade of southern ports and Union plans to attack the Confederate capital at Richmond. The duel was witnessed by tens of thousands of troops on ships and on shore, including military observers from Europe. In addition to breaking the blockade, Southern leaders hoped a victory would sway France and England to weigh in on the side of the Confederacy.

Pacing the deck of the *Virginia*, Flag Officer Franklin Buchanan knew how high the stakes were and how great the risks. A volatile Marylander who had "gone South," "Old Buck" had spent nearly 50 years in the Navy's world of wooden ships and iron men, including a stint as the first superintendent of the U.S. Naval Academy. Yet on the morning of March 8, he boldly steered an experimental vessel on her maiden voyage straight into the maw of some of the best ships in the U.S. Navy. That morning he asked chief engineer Ashton Ramsay how well his engines were braced. "I am going to ram the *Cumberland*," he informed Ramsay. "I'm told she has the new rifled guns, the only ones in their whole fleet we have cause to fear."

Aboard the *Cumberland*, Lt. George Morris saw the devastation inflicted on the Congress and knew his turn was next. His ship was a favorite among the federal fleet, an old frigate that had been cut down to create a fast-sailing corvette of 24 guns. Without wind she was a sitting duck, but Morris was confident that his larger cannon —particularly the new rifled pivot gun at the stern—would crush the *Virginia*'s iron shield. His forward guns roared, scoring direct hits, yet the deadly shells ricocheted off the ironclad, exploding harmlessly in the air.

The *Virginia* steamed on toward the *Cumberland*, firing as she came. The first strike smashed the starboard rail, killing or maiming nine marines. The next shot exploded among the 16 men of the forward gun crew, killing all but two. Shot after shot mowed down the *Cumberland*'s men, leaving a trail of body parts and blood. The dead were hauled to the port side; the wounded carried below. As each gunner fell, another stepped up to take his place.

Making a steady approach, Buchanan blasted the *Cumberland* for 15 minutes, then plowed his iron monster straight into the wooden ship. Sailors on both vessels felt a terrific crash as iron ram hit solid oak, punching a hole at the waterline some said was big enough for a horse and cart to pass through. The ram worked almost too well. The *Cumberland* began sinking so fast it threatened to take the ironclad down with it. At the last moment the ram wrenched off, freeing the *Virginia* from its victim.

Buchanan hailed the sinking ship, demanding its surrender. A defiant Morris yelled back, "No, damn you! I will never surrender!" The *Virginia* now lay parallel to the sinking *Cumberland* and fewer than a hundred yards away. The *Cumberland*'s crew, some in water to their knees, took their revenge, pouring round after round into the ironclad at close range. Gunners aboard the ironclad, their bodies black with powder and streaked with sweat, returned fire with devastating effect. "The way was slippery with blood, and the mutilated humanity was a sight too awful for description," recalled acting master William Pritchard Randall, who ordered the last shot fired from the *Cumberland*. Of the 376 men on board, 121 were dead or missing and perhaps another 80 or more were wounded.

"The normal practice at that time was to fight until you had 10 percent casualties; then you could honorably surrender," says Craig Symonds, professor emeritus of history at the U.S. Naval Academy. "The 55 percent casualty rate on the *Cumberland* was phenomenal. Some of that was because the wounded were carried below, but the numbers show how heroically they fought."

At last the *Cumberland*, her colors still flying, lurched to port and sank to the river bottom, the screams of the men trapped below decks silenced by the black water. Though the Navy would use wooden sailing vessels for another decade or two, many historians point to March 8, 1862, as the day the wooden warship died. That same afternoon, the fate of the U.S.S. *Congress* would signal an even more ominous turn—away from the traditional rules of naval battle and toward no-holds-barred, mechanized war.

As the Virginia made a lumbering turn and headed back toward the stricken *Congress*, Lt. Joseph Smith, hoping to escape the *Cumberland*'s fate, ordered a nearby tug to ground his ship beneath the shore batteries at Newport News Point. But even there the *Congress* was still within reach of the *Virginia*'s merciless nine-inch-diameter guns. Flying splinters ripped from the ship's wooden walls killed more than shot or shells, some men impaled by wood fragments as thick as their wrists. Within half an hour nearly a quarter of the crew were dead or wounded, including Lieutenant Smith, who was decapitated by a shell fragment. The ship raised the white flag.

The water around the *Congress* was too shallow for the *Virginia* to approach, so Buchanan sent two small Confederate vessels to claim his prize. They were met by withering fire from Union soldiers on shore under the command of Gen. Joseph Mansfield. One of Mansfield's officers reportedly complained that the ship had surrendered and the rebels had a right to take her, to which the general replied, "I know the damned ship has surrendered, but we haven't!"

Buchanan was livid. He demanded a rifle and without thinking began firing at the soldiers on shore from atop the *Virginia*. A hail of bullets came back in reply, and Old Buck crumbled to the iron deck, shot in the groin. Calling for Catesby Jones, his unflappable executive officer, Buchanan turned over command with an order to "plug hot shot into her and don't leave her until she's afire!" Jones quickly complied, blasting the vessel with shot heated red in the ship's furnace until the *Congress* was a funeral pyre for the living and the dead.

For decades afterward, veterans of the battle argued about who committed the more dastardly deed, Mansfield or Buchanan. "Here's an iron vessel firing hot shot at a stranded wooden vessel with wounded aboard," says Symonds. "It's a total violation of the traditional rules of war." Incredibly, Buchanan set the *Congress* aflame knowing all the while that his own brother, also a naval officer, was aboard the doomed ship.

At the start of the battle, three Union warships had rushed in pursuit of the *Virginia*. To the dismay of the men aboard, all three ships ran aground on a sandbar. Two of them eventually managed to break free and scurry back to Fort Monroe, a massive stone fortress that guards the entrance to the Chesapeake Bay. But the third, the U.S.S. *Minnesota*, remained hard aground. Jones was now keen to destroy her as well, but with the tide draining from the Roads, his pilots refused to approach closer than a mile. Jones pounded the Union vessel until it was too dark to sight his guns, then ordered the *Virginia* back to her moorings. He would return at dawn to finish off the hapless *Minnesota*.

On a hot summer day, Civil War historian John Quarstein, who has written extensively on the battle, threaded his black Mercedes convertible down a dead-end street to the industrial waterfront of Newport News. The nation's newest aircraft carrier, the U.S.S. *George H. W. Bush*, loomed above the Northrop Grumman shipyard nearby. The theatrical Quarstein, who is not above a hearty "Huzzah!" now and then, swept a cane toward the oily waters where the battle had raged. "The whole pathos of a nation divided, brother against brother, is right here," he said. "To sink two warships in two hours time, 10 guns against 70, is just amazing. Lincoln saw it as the greatest calamity since Bull Run."

In fact, the *Virginia* had handed the U.S. Navy the worst defeat it would suffer until Japan attacked Pearl Harbor 80 years later. Panic seized the North. No less a figure than Edwin Stanton, Lincoln's secretary of war, feared the rebel ironclad would steam up the Potomac River and lay waste to Washington. But that night, as the Virginia's crewmen readied their ship, another odd vessel quietly steamed into the Roads and tied up to the stranded *Minnesota*. The arrival of the U.S.S. *Monitor* that night was nothing short of miraculous. Built in barely more than three months by an irascible inventor named John Ericsson, the flat, iron vessel nearly sank off the New Jersey coast as it was being towed south. Had the *Monitor* missed its date with destiny by even half a day, there would have been no federal fleet left to save at Hampton Roads.

When Catesby Jones steered the *Virginia* toward the *Minnesota* the next morning, Lt. John Worden, the slight, soft-spoken captain of the *Monitor*, steamed out to confront him. For the next four hours the two mechanical monsters went toe-to-toe, at times firing virtually barrel to barrel. The *Virginia* even rammed the *Monitor*, to no avail. Neither could gain an advantage until at last a Confederate gunner scored a direct hit on the *Monitor*'s pilothouse, blinding Worden. Blood streaming down his face, Worden turned the ship over to Samuel Dana Greene, his 22-year-old executive officer. Worden's charge to Greene was straightforward: "Save the *Minnesota*—if you can."

Jones, seeing the *Monitor* retreat into shoal water where he could not follow, believed she had given up the fight, and he turned his attention back to the *Minnesota*. But once again the tides and his pilots thwarted him, keeping him a mile from his target. The *Virginia* was leaking at the bow and had burned so much coal that it had risen more than a foot, exposing its vulnerable hull above the waterline. Conferring with his officers, Jones reluctantly left the *Minnesota* and headed back to Norfolk for repairs.

After assessing damage to the *Monitor* and finding her sound, Greene returned to the fray, only to find the Virginia steaming for home. Lieutenant Worden was seriously injured, and the crew hadn't slept in nearly three days. Greene's orders were explicit: Protect the *Minnesota*. He headed back to the stricken ship, believing the *Virginia* in full retreat.

Civil War buffs still argue about who won the Battle of Hampton Roads. Most historians call it a draw, although Symonds qualifies the term. "The battle was certainly a draw in the tactical sense, but in the strategic sense it was a clear Union victory. The *Monitor* neutralized the offensive potential of the *Virginia*, which allowed the Union Navy to remain in Hampton Roads."

The two ironclads never fought again, and neither survived the year. Two months after the standoff, Union troops retook Norfolk, and Catesby Jones himself lit the powder train that blew up the Virginia to keep her out of enemy hands. Seven months later the *Monitor*, never built for rough seas, sank in a storm off Cape Hatteras, taking 16 men down with her.

More than 140 years later I stood atop makeshift scaffolding and stared down the barrel of history—two barrels to be exact. The turret of the *Monitor*, the first rotating gun turret in the world, sat upside down in a steel tank on the back lot of the Mariner's Museum in Newport News, Virginia. Recovered from the wreck site in 2002 through the combined efforts of the U.S. Navy and the National Oceanic and Atmospheric Administration (NOAA), the turret will soon be the centerpiece of a 30-million-dollar exhibit scheduled to open next year.

The importance of the 120-ton artifact hit home for NOAA historian Jeff Johnston the moment it entered its former battleground. "When we brought the recovery barge carrying the turret back into the Roads, Fort Monroe gave us a 21-gun salute," says Johnston. The honor was for the remains of two Union sailors found inside the turret, but the salute could as well have been for all the men who fought and died on those fateful days in March 1862. The barge then headed past Sewell's Point—a former mooring of the *Virginia* near what is now home base to half the U.S. Navy's aircraft carriers—toward the great shipyard that still builds the most advanced warships in the world, and finally to a dock in Newport News, a few hundred yards from where the men of the *Cumberland* went down fighting for their ship and the future of the nation.

The smoke of battle has long cleared, but legacies of the great conflict can still be seen in this old Navy town. Walk the decks of the U.S.S. *Wisconsin*, a World War II-era battleship now anchored at the Hampton Roads Naval Museum on the Norfolk waterfront, and see the sloped armor and rotating turrets—innovations evolved from the early ironclads.

More importantly, perhaps, the battle changed the nature of naval warfare itself. No longer would sailors fight in the grand tradition of Admiral Lord Nelson, blasting away at each other from unprotected decks in full view of their enemy. As one officer who fought aboard the *Monitor* noted ruefully, "There isn't danger enough to give us glory."