

Civil War Ironclads

Audio

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Duration: 3:32

Transcript:

Audio Transcript

Today, we learn from the present, but only after it's turned into the past. The University of Houston's College of Engineering presents this series about the machines that make our civilization run, and the people whose ingenuity created them.

The Civil War was a great testing ground for military ordnance. It revealed a whole new set of war machines. European observers watched this parade of half-formed ideas like bugs under a glass. They watched, but they didn't really understand. Repeating rifles, ironclad ships, aerial observation, and submarines all appeared as imperfect embryos. The watching world didn't understand that war was being transformed into a new order of horror. Those machines caught us by surprise when they converged on WW-I fifty years later.

Take the Monitor and the Merrimack. Our school textbooks paint their epic battle at Hampton Rhodes as one of a kind — an oddity. But, thumbing through a catalogue of Civil War ships, we're caught short. Other ironclads were already being built while the battle was going on. The Union built them from scratch, while the Confederacy raced to convert wooden ships.

By 1862 a great hobo-stew of iron ships ranged our coasts and rivers seeking whom they might devour. Here's the Confederate ship Manassas. It began life as a wooden ice-breaker. Now it looks like an iron whale. Screw propellers drive it the way they drove the Monitor and Merrimack. The Manassas has only one small forward-firing gun, but its front end is a massive ram. She rammed a few Union ships in 1862. Then she finally ran aground and burned.

Screw propellers were fairly new. Many ironclads still used the older paddle wheel — vulnerable to enemy guns. Now huge round iron covers sprouted on paddle-driven iron boats.

Designers also experimented with gun turrets. Some looked like sawed-off cones — some like domed cupolas. Some were pillboxes. Some rotated, and some didn't. Some gunboats had no turrets at all. They still carried fixed guns that fired broadside from loopholes — like the old sailing warships.

Some ironclads had conventional hulls and rode high in the water. But most hunkered down in the water like the Monitor. Some exposed only a few inches of hull above the surface. Those boats, of course, were close to being the first submarines. Submarines were also used first in the Civil War. And all the while, this terrible laboratory of war winnowed among the twists and turns of inventive minds.

By 1914 the modern warship was no longer an ineffective flight of fancy. Now it was an ordered and efficient killing machine. And we were finally ready to learn all that we'd failed to learn in the Civil War.

I'm John Lienhard, at the University of Houston, where we're interested in the way inventive minds work.

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