# USS Monitor and CSS Hunley

### Introduction

On September 19, 2003, Professor of Marine Archeology at the University of East Carolina, Lawrence Babits, gave a lecture in the Department of Archeology and Ethnology, entitled "The Monitor". The lecture took place in the institute's premises in Copenhagen.

The information about this lecture was kindly brought to Chakoten's members by Lea Meistrup-Larsen from the University of Copenhagen, who in mid-August brought an invitation to the debate forum on Chakoten's website. The call brought two current and one former member of the Chakto to the stage, bringing the total number of listeners to the one-hour lecture in the order of 20.

The following is a small summary of the lecture, which fortunately is well supported by the article *Sphinx, Stonewall, Stærkodder, Adzuma-Kan or dear (?) child has many names* by Jens Kristian Boll, which is published in Chakoten 3/2003. The naval history section of that article provides excellent historical background.

## About ironclads during the American Civil War

The American Civil War, like the first modern war, gave many clues as to how the art of war would develop in subsequent generations, thus also within the maritime field - armored ships and submarines became the first steps on the development ladder.

The Southern States developed their armored ships as a countermeasure to the Northern States' naval blockade and they were initially very successful against the older wooden ships that the Northern States could muster. In Washington, developments were followed with concern, both via official reports and the daily press - it was so that in the respective parts of the warring states you could read each other's newspapers two days after they were published.



The Confederate maritime rearmament, which resulted in the armored ship *CSS Virginia,* which was built on the remains of the steam frigate *USS Merrimac,* was therefore followed with the greatest interest - and possible countermeasures were looked around for.

## **USS Monitor**

The Ministry of the Navy therefore turned to the Swedish engineer and inventor *John Ericsson*, who in just over three months was ready to launch the world's first actual armored ship, powered by a modern screw.

It must have made some older, conservative naval officers cringe when they saw the finished result, which in no way resembled a real warship.

The ship, which was 52 m long and 12.5 m wide, was equipped with 2 11-inch guns, mounted in a revolving turret. Much modern technology was used - *John Ericsson* appears to be an inventor who could well have appeared in a Jules Vernes novel. A ship's propeller as we know it today was used for the first time, all the mechanics on the ship were powered by the ship's steam-powered engines and even the first drag-and-drop toilet on board a ship was installed on the USS *Monitor*.

### The Battle of Hampton Roads

The 9th of March 1862 was a landmark date in modern naval history, as it was the first time that two ironclads saw battle. The site of the skirmish was the sound of Hampton Roads in Virginia. The day before, *CSS Virginia* had sunk *USS Cumberland* and *USS Congress*, and much indicated that the rest of the Northern States' naval blockade in the area could be sunk, whereby the Southern States had free access to the Atlantic Ocean. However, it had been calculated without *John Ericsson's* invention *USS Monitor*, which had arrived in the area. The voyage from New York to Virginia had not been without difficulties and the sailors had had a foretaste of the power of the Atlantic Ocean - a power which later led to the ship's demise.



A six-hour long firefight now developed and the two ships fired at each other with a good heart - without, however, causing significant damage to each other.

Professor Babits said *the USS Monitor* fired 41 rounds during the battle. The gun tower was arranged so that the guns could only fire one at a time. People were not yet so familiar with the technique that they dared to shoot with anything other than half a charge.

During the voyage to Hampton Roads, the ammunition elevators had been damaged and therefore had to make do with the ammunition that was lying by the guns. After just over three hours, the battle was called off and *the USS Monitor* used the time to bring ammunition from the ship's magazines up to the guns - and the sailors

got a much needed break and opportunity to get some fresh air!

After the break, the match resumed. The ships really did not have ammunition that could destroy each other - an actual armor-piercing shell had not yet been developed, so hits on the ships' armor plates led to dents that - although deep - did not break through the armor.



The battle was ended and CSS Virginia retired to her base at Norfolk. The USS Monitor - and the other federal ships - remained victorious.

This contemporary illustration shows - with a large element of artistic freedom - the skirmish between the two battleships.

#### The sinking of the USS Monitor

The ship took part in the following months in the naval blockade and was eventually in such a condition that the ship needed a longer stay and on December 29, 1862 it was towed towards Beaufort, North Carolina, by the USS Rhode Island .

The weather forecast predicted calm weather, but on the evening of the 30th it blew up into a violent storm. The ship was filled with water and the fire under the boilers went out. Despite numerous attempts to save the ship, the chain had to be thrown from *the USS Rhode Island* and the ship's demise was near. However, they managed to save the majority of the 62-strong crew, but 16 sailors lost their lives.

### **USS Monitor's salvage**

In 1977, the wreck of *the USS Monitor* was found, sunk in 75 m of water, and it was immediately declared a war grave. Over the next 20 years, several different dives are carried out on the wreck, and several parts are recovered - the anchor (1977), the screw (1997), the engine (2000) and finally the gun turret (2002).

As an archaeologist, Professor Babits did not have much left of the early salvages, which were carried out by US Navy divers. Much had been destroyed or lost in the eagerness to bring individual parts to the surface, but despite this many small and larger parts had been salvaged.

If you want to know more about the salvage operations, a visit to *The Mariners Museum* (www.mariner.org/monitor) is recommended.

# **Concluding remarks**

The construction of the tower was a big surprise to everyone. It turned out that, contrary to expectations, it did not consist of a single armor plate, but of two layers of armor plate (the outer layer was two inches thick and the inner one inch thick; between the two layers was a space, the dimensions of which were not specified) and in the professor's opinion, would increase the problems of conservation and later display.

The professor had followed the salvage operations on the sidelines, but had not taken part in it himself. He had also participated in the building of a reconstruction of *the USS Monitor* - or parts thereof - which was used during the filming of a film. The experience from this indicated that there was not much space in the gun tower and that it would have been physically impossible for both guns to fire simultaneously, so illustrations that might show such a situation are not correct.

# CSS H.L. Hunley

It turned out that the lecture was just as much about another of the "world's first ships" - namely the submarine - CSS HL Hunley.



The submarine sunk the steam frigate *USS Housatonic* on the night between 17 and 18 February 1864 off the harbor at Charleston. The submarine then disappeared with man and mouse - although, given the size of the boat, one can doubt whether there was room for a mouse too! The dimensions were: Length 12 m, width 1.2 m and height 1.5 m.

This painting by Conrad Wise Chapman gives an impression of the submarine's size.

The boat's crew consisted of 8 men, seven of whom drove the boat by hand - using an ingenious arrangement of cranks. The eighth man was the submarine's captain - *Lieutenant George E. Dixon.* The submarine's armament was a rod torpedo.

The submarine was named after *Horace Lawson Hunley,* the submarine's first captain, who in 1863 had drowned along with the rest of the crew when the submarine sank during a practice voyage. The submarine was subsequently salvaged and repaired, an operation that was run and financed by, among others, *George E. Dixon.* 

*Lieutenant Dixon* was a veteran of the Battle of Shiloh (April 6, 1862). During this battle, he carried - according to legend - a 20-dollar gold coin that his girlfriend *Queenie Bennett* had given him when he left for war. The coin saved his life during the battle, stopping a Federal bullet. The memory of this event was preserved by an engraving in the coin.

On the night of February 17-18, 1864, *CSS HL Hunley* steamed against the Federal blockade ships off Charleston Harbor. With its rod torpedo it attacked the *USS Housatonic,* which subsequently sank with the loss of five men. What happened next to *CSS HL Hunley* is something of a mystery.

# **CSS Hunley returns**

It is said that the last thing seen of the submarine was a bluish flash before it disappeared below the surface of the sea. The plan was that the submarine, after having completed its task, would signal to posts ashore, which would then light two beacons that would enable the submarine to get a sense of land and find its way back to the port The bluish flash is believed to be from *CSS HL Hunley's* signal light and the beacons were lit as agreed, but the submarine never returned... And yet, it was salvaged in May 1995.



The Danish marine archaeologist Maria Jacobsen helped find the submarine, which had sunk in 8-10 m of water, and the subsequent archaeological detective work.

It is assumed that after the sinking of *the USS Housatonic*, the submarine dived to avoid the other federal ships outside the harbor - the submarine could stay submerged for four hours - after which it would escape unseen back to Charleston Harbor.

When the submarine was found, several things could be ascertained, including that all crew members were still at their posts - some still with their hands on the cranks! The crew was therefore not drowned, but suffocated due to lack of oxygen. For many years the submarine had been close and the remains were therefore relatively well preserved. Buttons, remnants of uniforms and all sorts of small and large items from the boat's equipment were found.



Maria Jacobsen, who is obviously known in archaeologist circles for her ability to find gold, naturally found (!)

#### Lt. George E. Dixon Gold Coin.

After more than 130 years at the bottom of the sea, the coin saw the light of day again, and it was possible to read the inscription commemorating the Battle of Shiloh.



Read more about *the CSS Hunley*, its history and all about the salvage on the website *Friends of the Hunley* (www.hunley.org).

### Closing

It was an exciting hour in the company of Professor Lawrence Babits, whose lecture was accompanied by slides of varying quality; the illustrations were to a large extent marred by AV equipment of not too excellent quality, as well as by the fact that all slides were mounted mirrored! Assessed with my outside eyes, this part of the lecture could easily stand a professionalization.

However, this beauty flaw in no way ruined the pleasure and I would like to thank Lea Meistrup-Larsen for her kind invitation. Should more of the same kind appear, we'd love to hear about it!

#### My sources

The cards are from www.expedia.com.

A visit to the *Naval Historical Center* website (www.history.navy.mil) is a good entry point to all imaginable information about the ships that were mentioned during the lecture as well as about the naval side of the American Civil War. The site also contains a very large collection of photos and drawings, from which most of my illustrations originate.



The gun turret of the USS Monitor.



Parts of the crew of the USS Monitor.

### Postscript 1

According to one of the many anecdotes associated with *the USS Monitor*, it is said that the ship's treasure panicked during the sinking. One of the crew members saved the cat - or just ensured peace of mind (?) - by wrapping the cat in a jacket, stuffing the bolt into one of the guns, then plugging the tube/closing the lock (it is not said that this was done from the inside or from outside).

The cannons are now being freed from the cement-like coating which surrounds them, and we await with great interest whether the body of the ship's treasure will appear!

### Postscript 2

2003 is the 200th anniversary of *John Ericsson's* birth and in August 2003 Swedish television broadcast a very interesting program about this inventor. After his death in New York in 1896, he was sailed to Stockholm, where, with every imaginable form of honor, including a muster of the entire Swedish navy, he was given a burial fit for a king. Should the broadcast be rebroadcast, I can definitely recommend it as part of the exciting story of *the USS Monitor*.

Per Finsted