# Introduction

Civil War combat foreshadowed modern warfare with the introduction of the machine gun, repeater rifles, and trench warfare, and the use of trains to quickly move troops. However, one of the most celebrated tactical innovations of the war was the use of submarines by the Confederate Navy. An early example of this type of naval ingenuity was the CSS *Pioneer* developed by Horace Lawson Hunley, James McClintock, and Baxter Watson. The Confederates were forced to abandon the *Pioneer* during testing for fear of capture but she eventually found her way into Union hands, where the submersible was examined and sketched by Ensign David Stauffer of the USS *Alexandria*. Following the war, the *Pioneer* was scrapped for metal.

Most accounts of actual Civil War submarine combat focus on the sinking of the USS *Housatonic* by the CSS *H. L. Hunley* in February 1864, but few mention an earlier but unsuccessful attack by a cigar-shaped vessel, the CSS *David*, in October 1863. This letter from Union sailor Lewis H. West is a rare eyewitness account of that incident, one of the earliest submarine attacks in naval history. On his first night on board the USS *New Ironsides*, West experienced the *David*'s attack. Stealthily cutting through Charleston Bay almost entirely submerged, the *David* crew attempted to explode a torpedo (what we now refer to as a mine) and in the process nearly destroyed their own vessel. According to West, the "nondescript craft" barely damaged the *New Ironsides*, and divers found "that not a plate or bolt is started."

The CSS *David* survived the explosion and the small-arms fire that raked the hull. She made it back to shore due to the heroic actions of Assistant Engineer J. H. Tombs. The ship had two additional confirmed attacks, one in March 1864 against the USS *Memphis*, and another on the USS *Wabash* a month later. Both were as unsuccessful as the attack on the *New Ironsides*. The fate of the *David* is unknown, but she might have been among several submarines captured by Union forces when they marched into Charleston in February 1865.

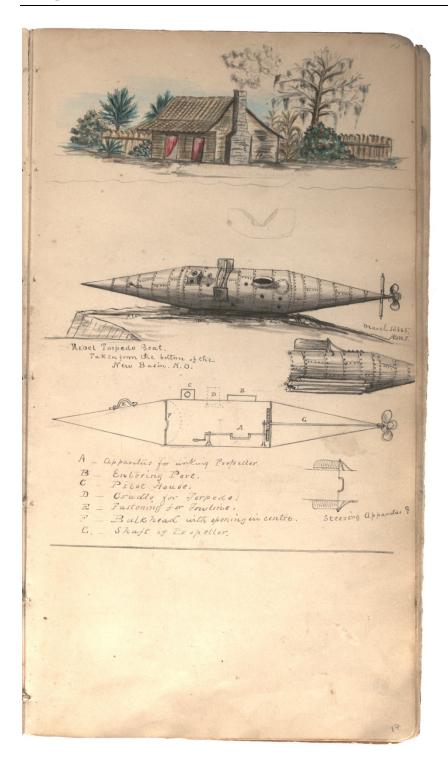
West's letter foretells the submarine's role as one of the most technically sophisticated and strategically important weapon systems of the twentieth century.

# **Questions for Discussion**

Read the document introduction and transcript and perhaps have a discussion with a science teacher to answer the following questions.

- 1. How did the attack by the "infernal machine" described in West's letter indicate a major change in naval technology and tactics?
- 2. Why did West dismiss the effectiveness of the CSS David?
- 3. Consider the challenges to the development of a submarine. What problems did the naval engineers and technicians face in developing that vessel?

## Image



Sketches by David M. Stauffer, an ensign on the USS Alexandria, 1864–1870. (Gilder Lehrman Collection, GLC07713)

#### Image

M. J. J. Ironsides Off Morris Vand Oct Sta 163 Dean Ma as I am at present fixed here I lake The first opportunity of letting you know what has transpired since I left you. I sailed in the Paul Jones on Wednesday following my departure from Phil, and arrived at Charleston on Junday. On reporting to the admiral for duty he ordered me to this ship, but on coming on board I found that her complement of officers was full. East Rowan said I had better go on board one of the monitors and that he would see the flut captain about it. That night however a vacuncy was made by rather way prectedly. A short time after 9 Pm, just as I was turning in, the officer of the deck hailed something, The hail was followed by two or three musket shots and a tremendous crash and explosion that she sounded as if the shipstimbers were all smashed in. The drum beat to quarters, and as I had not yet been stationed, I am on deck to see what was up. The marines were keeping up a heavy fire of musketry on some small object in the water, that in the darkness looked as much like a barrel as any thing else. In a few minutes it drifte

Lewis H. West to R. West, October 8, 1863. (Gilder Lehrman Collection, GLC03836.59)

out of sight on sunk. Many long water were thrown on deck by the explosion, but on examination the ship was not injured in the least, beyond having a few storeroom bulk heads demolished by the concussion. A man had his leg broken, and the officer of the deck was shot through the body, by a musker fired from the nondescript craft, just as he fired at. it. The next morning we found that two men had been picked up by vessels near us, one of whom was recognized as an ex-naval officer. He turned out to be the commander of the infernal machine which tried to destroy us. He stated that she was a small Steamer on the same principle as Winan's eiger ship, with an outrigger to her lows carrying the torjudo. The was so constructed as to be almost entirely under water, excepting a very low smokestack. On exploding the torpedo, which was done by simply running against the side, an addition. al effect was produced which he had not count. ed on. The immense body of water thrown up came down his amokestack putting his ford fires out and entirely destroying his motive power. The ressel was also probably damaged by the concussion Finding they could not get away they all to the (five in number) jumped overboard to avoid the muskely which we were pelling them with, The other three are supposed to be shot or drowned, and the machine sunk. This is the sebs story and

it seems probable, It is not likely that a man of the coolness and daring to experiorm such an operation, would jump overboard from his vessel unless she was sinking. In consequence of Mr Howard ( the officer of the deck at the time,) being disabled, I am to be kept here, which arrangement suits me very well, as the ship is certainly the most desirable one to be in, of the whole fleet, in all respects. Nothing can show her tremendous and strength and power of endurance more than this fruitess altempt. Had she been a wooden vessel or of a different model, she would have been blown to pieces. We had the divers here yesterday to examine her under water, and they report that not a plate or bolt is started. The have levely time at night now, passing it nearly all the time; with orders to fire at every thing we see ; so the New Fron--sides is not a very nice place for visiting in the evening, If my first nights experience on board is a sample of I certainly can no longer complain of monotonous duty your alf son

#### Transcript

Lewis H. West to R. West, October 8, 1863. (Gilder Lehrman Collection, GLC03836.59)

U.S.S. Ironsides Off Morris Island Oct 8<sup>th</sup>/63

#### Dear Ma

As I am at present fixed here I take the first opportunity of letting you know what has transpired since I left you. I sailed in the Paul Jones on Wednesday following my departure from Phil. and arrived at Charleston on Sunday. On reporting to the Admiral for duty [inserted: the next day] he ordered me to this ship, but on coming on board I found that her complement of officers was full. Capt Rowan said I had better go on board one of the Monitors, and that he would see the fleet captain about it. That night however a vacancy was made [struck: by illegible] rather unexpectedly. A short time after 9 P.M, just as I was turning in, the officer of the deck hailed something. The hail was followed [*inserted*: instantly] by two or three musket shots and a tremendous crash and explosion, that [struck: she] sounded as if the ship's timbers were all smashed in. The drum beat to quarters, and as I had not yet been stationed, I [*strikeout*] [inserted: went] on deck to see what was up. The marines were keeping up a heavy fire of musketry on some small object in the water, that in the darkness looked as much like a barrel as anything else. In a few minutes it drifted [2] out of sight or sunk. Many tons [inserted: of] water were thrown on deck by the explosion, but on examination the ship was not injured in the least, beyond having a few storeroom bulk heads demolished by the concussion. A man had his leg broken, and the officer of the deck was shot through the body, by a musket fired from the nondescript craft, just as he fired at it. The next morning we found that two men had been picked up by vessels near us, one of whom was recognized as an ex-naval officer. He turned out to be the commander of the infernal machine which tried to destroy us. He stated that she was a small steamer on the same principle as Winan's cigar ship, with an outrigger to her bows carrying the torpedo. She was so constructed as to be almost entirely under water, excepting a very low smokestack. On exploding the torpedo, which was done by simply running against the side, an additional effect was produced which he had not counted on. The immense body of water thrown up came down his smokestack putting his [struck: fired] fires out, and entirely

destroying his motive power. The vessel was also probably damaged by the concussion

Finding they could not get away they all [*struck*: to the] (five in number) jumped overboard to avoid the musketry which we were pelting them with. The other three are supposed to be shot or drowned, and the machine sunk. This is the rebs story and [3] it seems probable. It is not likely that a man of the coolness and daring to [*struck*: ex] perform such an operation, would jump overboard from his vessel unless she was sinking.

In consequence of Mr Howard (the officer of the deck at the time,) being disabled, I am to be kept here, which arrangement suits me very well, as the ship is certainly the most desirable one to be in, of the whole fleet, in all respects. Nothing can show her tremendous [*struck*: and] strength and power of endurance more than this fruitless attempt model, she would have been blown to pieces. We had the divers here yesterday to examine her under water, and they report that not a plate or bolt is started. We have lively times at night now, passing it nearly all the time, [*inserted*: at quarters] with orders to fire at every thing we see; so the New Ironsides is not a very nice place for visiting in the evening. If my first night's experience on board is a sample [*struck*: of] I certainly can no longer complain of monotonous duty.

Your Aff son L. West