

Lessons in experimental archaeology

Rick Brown (BFA '73) sees reconstructing a Revolutionary War submarine as a means of teaching history

by Nathan Long

In the pale, early light of an overcast morning, men and horses struggle to lower a 6,000-pound wooden ship into Snug Harbor in Duxbury, Mass. Supported on a sturdy timber cart with cast-iron wheels, the three-ton vessel looks like a giant walnut with a brass crown. It is, in fact, a working submarine, and a monument to one of the greatest forgotten inventors to labor on American soil.

David Bushnell's Revolutionary War sub was originally known as the American Turtle and was designed to be a secret weapon in the colonists' struggle for independence from the British. It carried an underwater time bomb, which was intended to sink the *H.M.S. Eagle*, the flagship of the British fleet.

More than two centuries later, Bushnell's crude warship provides a modern-day lesson in what is known as "experimental archeology," a way of learning about the past by studying outmoded technologies and trying to reconstruct them as they were originally built. The forces behind this lesson are Massachusetts College of Art professors Rick Brown (BFA '73) and his wife Laura, who were undaunted by the fact that the Turtle was unable to embark on its history-altering mission, owing to the unexpected sickness of the ship's pilot. To the Browns and their art students who rebuilt Bushnell's period masterpiece, this chapter in American history is anything but obscure and Bushnell certainly not forgotten.

"They start to understand history in a very in-depth way," says Rick of his students' experience. "So for me this is a very rich educational journey."

Bushnell's letters and a careful analysis of building methods of the day were all the Browns and their team had to go on in recreating a facsimile of the submarine—no blueprints, photographs, or drawings. But their diligence paid off, says Alex Roland, a military historian at Duke University who provided an expert assessment of the sub prior to its maiden voyage in January 2003.

"I thought it was just brilliant," says Roland. "Their constructions were very plausible, very doable in terms of what craftsmen could have done in Bushnell's time, and they worked beautifully."

Students at the U.S. Naval Academy also analyzed the sub's design as part of their underwater vehicles class under Lt. Commander Rich Schoenwiesner. "What they were able to do," says Schoenwiesner, "was take the basic principles and apply them to a basic vehicle and see that they actually work."

A TV documentary on the Brown's submarine reconstruction has already appeared in the United Kingdom and is scheduled to run on the Discovery Channel in the U.S. in 2004. While they continue to display their 21st-century version of the Turtle, the Browns are already looking forward to new projects, including one that will involve rebuilding a 17th-century synagogue destroyed during Hitler's invasion of Poland.



SPECIAL

A documentary on Brown's reconstruction of the American Turtle, which was designed to sink a British war ship, is scheduled to air on the Discovery Channel in 2004.