



*Alligator* presentation Photo by Tom Hildenbrand

Alice Smith discusses the Civil War submarine, the *Alligator*. Photo by Joseph Busler

Audience at the

### By Joseph Busler

The Navy's first submarine, the muscle-powered Civil War *Alligator*, was tested in the Rancocas Creek; its French inventor and his crew stayed in a hotel in the new village of Delanco; and the carcass of its prototype may rest beneath the creek across from Newton's Landing.

The once almost forgotten [story of the Alligator](#) was told Nov. 20, 2008, at the Delanco Library by Alice Carl Smith, one of the historical researchers who rescued this major piece of Delanco and Civil War history from obscurity.

The *Alligator* was the invention of [Brutus de Villeroi](#) (1794-1874), a French engineer who built and demonstrated his first prototype in Nantes, France, in 1833. Unable to sell his idea to the French navy, he came to the United States to continue his work. He built several prototypes, each larger than the previous; [feuded with the Navy](#) over funding and construction schedules; and parted company with it on bad terms.

He took one of the prototypes back, and its whereabouts are unknown. Smith strongly suspects he took it up the Rancocas Creek and scuttled it. She has participated in a couple of widely publicized searches of the creek, with results that seemed promising at first but each time proved to be a false alarm.

Smith, a Delran resident who grew up in Delanco, is an associate member of the Newton's Landing History Committee and also of the Delanco Historical Preservation Advisory Board, which sponsored the Nov. 20 presentation. The event was attended by 15 people, several of them schoolchildren.

A curious and imaginative child, Smith grew up on Walter Avenue, two blocks from the creek, with a fascination with the early maritime explorers like [Vasco Núñez de Balboa](#), as whom she played on Hawk Island.

“Rancocas Creek was my ocean,” she said.

Years later, she saw a six-line unsourced account on [page 124](#) of Delanco’s Bicentennial local history book, [The Delanco Story: It’s Past and Present](#), of a “diving boat” that in 1861 came up the creek and landed at “the railroad bridge” – ancestor to the present-day blue RiverLINE bridge.

Historians are detectives, and Smith’s first question was how the book’s authors, working in 1975 and 1976, knew of this strange event more than a century earlier.

After inquiries, she learned that their source had been an essay by local woman, Barbara Frank Page. The authors believed the essay to be a college thesis, but Page said it was actually an eighth-grade history paper. And her source was a diary, since lost, that she was allowed to read. It was by Andress Ridgway, a shoemaker and one of Delanco’s founding fathers who, during the time of the *Alligator*’s trials here, lived on Poplar Street not far from the creek. Ridgway in his diary gave an account of the events surrounding the *Alligator* trials.

That breakthrough unleashed a cascade of information, including a May 18, 1861, front-page article in the *Philadelphia Inquirer* describing an “infernal machine” that had suddenly appeared in the waters off the Philadelphia Navy Yard. Other discoveries were a May 17, 1975, article in the *Burlington County Times* which presumably was also known to the authors of *The Delanco Story*.

Smith also discovered that de Villeroi was not the only person at the time working on submarines for military use.

“There were many people trying to develop them at that time,” Smith said.

Because ironclad warships immune to the cannon of the day were being introduced during the Civil War by both sides, naval officials all over the world realized that the way to sink them was to somehow get underneath them and attach a bomb to the unclad wooden hull beneath the waterline. Just a few submersible vessels able to go undetected beneath enemy ships and deploy a diver to attach the bomb could sink an entire fleet in short order, it was felt.

Ultimately, the *Alligator* was a failure.

Its original target, the Confederate ironclad *Virginia*, better known as the *Merrimac*, but the Union ironclad, the *Monitor*, battled it to a draw, so damaging the *Merrimac* that it was scuttled.

It was also found to be underpowered and incapable of its next assignment, clearing underwater obstructions the Confederates had put in the James River, which proved too shallow for the submarine to remain invisible.

In 1862, the *Alligator* underwent more tests, this time in Washington, and its duck-foot oars were replaced with a crank-driven screw propeller. It was being towed to Charleston, S.C., where its mission would have been to clear obstacles and attack Confederate ironclads, when it sank in bad weather.

The Confederate States [had better luck](#) with their submarine fleet, some of which were powered by steam. One Confederate submarine disabled but did not sink the USS *New Ironsides*, while a muscle-powered Confederate sub, the

Hunley sank the USS Housatonic off Charleston in 1862 before it also sank, for reasons still unclear.

Smith also described some of the unusual events and characters involved in the Alligator's development:

- [Brutus de Villeroi](#) himself, half inventor and half self-promotor.
- Jules Verne, whose Nautilus submarine in *Twenty Thousand Leagues Under the Sea* may have been inspired by de Villeroi's trials in Nantes, where Verne was a child at the time.
- Henry Kreiner Jr., the son of Delanco founding father Henry Kreiner Sr, owner of the Kreiner hotel where de Villeroi and his crew stayed, and French sailor Alexander Rhodes, are arrested by Philadelphia harbor police while attempting to transport de Villeroi's "infernal machine" from Delanco to the Philadelphia Navy Yard, according to May 18, 1861, articles in the *Bulletin* and *Philadelphia Inquirer*.
- Was Henry Kreiner Jr. the mysterious "Hank" who wrote an article for the Inquirer describing de Villeroi's submarine and its trials in Delanco?
- Pierre Leon, born in Nice, France, was an engineer for de Villeroi and later served with distinction in the U.S. Navy. He received the Medal of Honor April 3, 1863 for his service aboard the USS Baron de Kalb, Yazoo River Expedition, December 23 to 27, 1862. Like Rhodes, after the war he settled in Riverside and married a local woman.