WCU Geology Professor Martin Helmke takes the stage to school the Christina Basin Task Team on the rocky history of the Brandywine Creek. (Tom Tatum)
Crouching above a raft of rocks and pebbles, the professor smiled, squinted, and selected a sample.

He then stood and examined his find, lifting it into a cascade of sunlight.

“These are metamorphic rocks,” he declared. “They’re from the Cambrian Age. That makes them around 550 million years old.”

This stream explorer was Martin Helmke, Professor of Geology at West Chester University and an integral component of a unique educational cruise on the West Branch of the Brandywine Creek. Our flotilla of 10 canoes had pulled off onto this rocky “point bar” where Helmke shared his rock-solid geological expertise.

Helmke was one of some 20 participants in this venture, all dedicated professionals working in watershed quality and conservation and representing organizations that included the Brandywine Red Clay Alliance, the Nature Conservancy, Brandywine Conservancy, University of Delaware Water Resources Authority, Chester County Water Resources Authority, Delaware Nature Society, West Chester University, and Environmental Protection Agency Region 3, who had signed up for this Christina Basin Task Force canoe trip.

The trip was organized and promoted by Brandywine Red Clay Alliance (BRC) Watershed Conservation Director Brian Winslow who, along with BRC Executive Director Jim Jordan, had invited me to participate in the event and offer some of my own thoughts about 40 years of living here in the Brandywine Valley. Winslow’s ambitious plan was “to craft a nice trip and give folks who work so hard on protecting the watershed a chance to get out and experience it firsthand while also engaging in a few presentations focusing on Brandywine geology, natural history, and revolutionary history during our trip.”

Since home base for this promising event was the Northbrook Canoe Company (which is quite literally a mere stone’s throw from my home) it was a golden opportunity to meet new and interesting people and an offer I couldn’t pass up. The group assembled on the Northbrook Canoe Company grounds at 9 am under cloudless skies on Thursday morning. There our first speaker of the day, Wade Catts of South River Heritage Consulting, would treat us to his extensive knowledge of the Battle of the Brandywine before the folks at Northbrook bussed us upstream to our Harvey’s Bridge launch point.

Catts, an archeologist researching the Brandywine Battlefield, was assisted by Jeannine Speirs of the Chester County Planning Commission. Catts explained that although the Brandywine Battlefield Park consists of about 50 acres, the battle itself encompassed some 35,000 acres, or about 10 square miles, making it the most expansive land battle of the entire Revolutionary War.
His remarks emphasized what critical roles stream crossings like Chadds Ford and Trimble’s Ford played in the course of the battle. It was a time when Philadelphia, with a population of some 25,000 residents, was the largest city in the country, and yet was outnumbered by some 30,000 soldiers who took part in a battle now regarded as the largest single day engagement of the entire American Revolution.

Catts and Speirs also noted how troop movements under American commander George Washington and British commander William Howe were influenced by the gravel roads that existed at the time. These included the road now known as Route 926 or Street Road. Catts pointed out that this was a road first laid out by William Penn and was originally known as “Straight Road” due to its lengthy and enduring straightness.

After Catts concluded his fascinating journey through Chester County’s revolutionary history, it was time to head upstream to Harvey’s Bridge where the fine folks of the Northbrook Canoe Company dropped us off with our 10 canoes, paddles, life jackets, and some basic instructions on navigating these waters, including the portage required to negotiate the dam at the KOA property.

For my paddling partner I paired up with the congenial Kristen Travers who serves as Director of Conservation for the Delaware Nature Society. It turns out that Travers, positioned at the bow of our canoe with me at the stern, was a Northbrook neighbor of mine who lives about two miles upstream along the Brandywine.

She also proved to be a sharp-eyed observer of the natural world, spotting some painted turtles sunning themselves along the bank and a water snake doing the same on a protruding boulder. She also pointed out a few fish swimming by in the crystal-clear waters and a large eel that wriggled beneath our canoe, a kind of fish I had never crossed paths with in all my trips down this watershed. Travers had also spotted a river otter here not long ago.

After our portaging adventure at the KOA Campground, we passed beneath the storm damaged Embreeville Bridge which remains closed to traffic. Then, just downstream from the Embreeville Mill and following the cue of convoy leader Brian Winslow, we all pulled over onto the stony stage that Professor Helmke would take for his far-ranging and enthusiastic geology lecture. In addition to identifying some of the ancient rocks strewn about on this “point bar,” his subject matter straddled a stony spectrum from gold to garnet to the serpentine building blocks so prevalent on his West Chester University campus.

He noted that, in disembarking on this rocky point bar, we were essentially standing on the stream bed, and he pointed out how geological factors had influenced and helped shape the path of the meandering Brandywine. In conclusion, Professor Helmke emphasized how unique Chester County is in geological terms.
“More museum quality mineral specimens have been discovered here in Chester County than any other county in Pennsylvania,” he said. “That’s probably a factor of the more than 700 mines that have historically operated here over the years.” Helmke was a remarkably engaging speaker who, despite his many years teaching geology, still exudes a profound admiration and sense of wonder towards his beloved subject matter.

His would be a hard act to follow when our armada pulled over on another rocky point bar just downstream of Corcoran’s Bridge. There my own remarks would consist of some personal observations about my life on the Brandywine, kayaking, fishing and hunting here, and a few anecdotes drawn from my thirty-five-year career as a newspaper and magazine columnist. My talk made me appreciate what a polite and receptive audience these folks were.

Our three-hour, 4 ½ mile tour came to an end back at the Northbrook Canoe Company’s take-out point where we were treated to a box lunch prepared by the Northbrook Market before bidding each other a fond farewell. Many thanks to all of these special, hardworking folks, especially Jim Jordan and Brian Winslow, for making a fantastic event all the more memorable.

**** THE CHRISTINA BASIN CLEAN WATER PARTNERSHIP. For the record, the Christina Basin Clean Water Partnership was started in 1993 by BRC and helps coordinate over 20 partners representing federal, state, county, local, non-profit and university agencies from both Delaware and Pennsylvania in their efforts to improve water quality throughout watersheds including the Red Clay Creek, White Clay Creek, Brandywine Creek, and the Christina River. For more information about BRC go to their website at http://www.brandywineredclay.org.

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