

Backing into the Future

Through technology, kids gain an appreciation of community life

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Students from the CREST Summer Institute, at Pemaquid Point, in the summer of 2006

In December, students at Deer Isle-Stonington High School were searching through genealogy records in the extensive files of the Deer Isle Historical Society, writing down notes in the usual manner. However, the outcome of their work, thanks to a grant obtained by the Island Institute from the National Science Foundation, will be far from usual, involving up-to-date technologies and extensive training that island schools would not otherwise be able to afford.

CREST (Community for Rural Education Stewardship and Technology) encourages students to use technology as a tool in finding creative solutions to community challenges. It also seeks to promote students' awareness of and interest in technology-related careers they might pursue in Maine. At a weeklong CREST institute held at the Darling Marine Center last summer, students and teachers from Deer Isle and 10 other Maine schools began training in Web design, using GPS and GIS (global positioning and global information systems), operating a digital camcorder, and conducting ethnographic interviews.

CREST has already helped forge connections between these students and their communities. Volunteers at the Deer Isle and other historical societies have helped students with research; elderly residents of Vinalhaven have talked about the days when most of the island's shore was working waterfront; longtime residents have shared their knowledge about heirloom varieties of apples on Islesboro and productive clam flats on North Haven.

The Deer Isle students at the historical society were looking for information about the "Island Boys" from Deer Isle and Stonington who served as the entire crews for the DEFENDER and the COLUMBIA, winning yachts in the America's Cup Races of 1895 and 1899. Students plan to use this genealogical data and other historical information they find in the archives as a springboard for digital camcorder interviews with island residents who, when growing up in the area, heard stories about the crews.

Like students from other schools in the CREST program, students will edit their interviews with iMovie, which they were introduced to last summer, and then put the interviews and other completed work on the school's CREST website. Students also plan to present their material in some form at a community gathering.

By January, students on North Haven had recorded three interviews, using ethnographic skills taught at the summer institute by independent filmmaker Doug Campbell and Mike Kimball, assistant professor of anthropology at the University of Maine at Machias. Each interview investigated a different aspect of the island's once-thriving clam industry, now comprised of a few open flats and a small number of harvesters. Students plan to locate and reopen some of the flats that were formerly a lucrative source of income for island residents. As part of this project, teacher Louis Carrier says students hope to join the Department of Marine Resources' water-testing program that determines when flats need to be closed and when they are safe for reopening.

In one interview, Kate Quinn, a native islander whose father supported their family by clamming, explains how her mother prepared clams for the family and for sale to the public. Another records a cold, rainy day on the clam flats with Adam Campbell, Pulpit Harbor harbormaster, giving students lessons on how to locate clams and the equipment and technique for harvesting.

The third interview records Jen Litteral, marine programs officer for the Island Institute, as she explains the biology and physiology of clams. She also covers federal and state regu-

lations for harvesting clams and gives details of the different pollutants and contaminants that clams can take in and the infections they can pass on to people.

Students in Islesboro Central School's horticulture class had begun to compile a list of island residents they hoped to interview to learn about the cultivation and use of the many apple varieties they had found on the island. They began with people who brought in apples for pressing on a donated apple press. They hoped to locate additional volunteers by putting out a flyer and a notice in the local paper to explain their project and invite people to share recollections.

On Vinalhaven, middle school students were also looking for volunteer participation by residents, in a quest to document changes that have occurred on the island and to determine if its historic way of life can be preserved. Teacher Rob

Warren said that since students had not been able to find information on old maps about earlier marine use of property, they hoped to obtain it from island residents. In January, the teachers and 35 middle school students were working to expand their interviewing skills before proceeding. To stimulate interest in the project, they planned to attend various public meetings, explain their needs and ask people to volunteer for interviews.

Members of each island school CREST team and other students

they have trained have begun to use their GPS/GIS skills to produce maps that will be useful to their communities.

Aided by Marine Technology and Trades teacher Tom Duym, students from Deer Isle-Stonington schools were putting together a complex series of map "layers," including water salinity, currents, temperature, pollution sources, benthic types and the presence of sea grass for the coastline of lobster management Zone C. This information can help organizers of a hatchery located at the Stonington Lobster Co-op determine the most favorable locations to release their juvenile lobsters. "We will provide the base maps," Duym said, "and then students from science classes can go out and take readings for some of the information." Once the map layers are in place, they will be cross-referenced with fishermen's firsthand knowledge of the nooks and crannies of the Deer Isle/Stonington shoreline, adding yet another dimension.

Student Luke Sarndon, who is working on these maps, is also downloading information from the town and state that students will use for another CREST project—determining the number of coastal property transfers from year-round to seasonal residents. In an additional mapping adventure, teacher Anne Douglas and a group of sixth graders have



North Haven students located clam flats that were once a lucrative source of income for island residents.

researched the location of old tidal mills on the island. After writing down locations, they will visit sites, obtain GPS coordinates and return to their computers to transfer the way-points to an area map.

On Islesboro, where kindergarten students are working with ninth-grade buddies to put together an Island ABC book, each team has been assigned a letter, and all are brainstorming to decide what place, activity, person or thing on the island their letter will represent. "Some letters are easy," said teacher Vicki Conover, "like Q could be for the water taxi, QUICKSILVER, but others, like U or X, are stretching imaginations." In their travels around the island, students were taking fresh looks to come up with ideas for their group's letter, and they had already searched through historical maps and books to find names of obscure coves and points.

Islesboro students working on the Orchard Project will also produce their own map, which will pinpoint the location of each apple tree or orchard they have found and label the variety of apple. They hope these maps can be layered over plans for development and help identify any unique varieties that may be endangered. "We can collect scion wood from the heirloom trees and graft them onto root stock," said John Pincence, who runs the horticulture program.

Like Deer Isle-Stonington students, Vinalhaven Middle School CREST participants are concerned about the loss of working waterfront property and lack of affordable housing. They will use GPS and GIS to map transfers of year-round working waterfront property to non-marine use, combining their data with information already collected by the Vinalhaven Land Trust.



Deer Isle-Stonington students presented their gathered information as a website they made themselves.

Vinalhaven High School students have taken a slightly different route in using new technology, relying on a digital tape recorder provided by the CREST program rather than a camcorder to interview fellow students who are participating in the voyage of the FREYA, the 30-foot steel sloop vocational students refurbished over the past three years. Before the FREYA left, students recorded hour-long interviews with the sailors who would be participating in the trip from Maine to St. Augustine, Florida, and when they returned, interviewed them again. Now, says teacher Jud Raven, students will use an editing program, Audacity, to reduce interviews into two-



Students from each school present their projects at the 2008 CREST Summer Institute, in the Moore Auditorium of the Schoodic Education and Research Center.



Peter Ralston

Students from the 2007 CREST Summer Institute gather outside at the Schoodic Education and Research Center.

minute segments for broadcast on radio station WERU. In the future, students also would like to use their GIS skills to map the FREYA route and anchorages along the voyage, which they followed through journal entries posted on the FREYA website (<http://vivasail.com>) by fellow students Phil Hopkins, Niall Conlan and Chris Sawyer and teacher/captain Mark Jackson. Different students sailed on the voyage home, which began after February vacation.

By the end of this year, CREST participants are required to use their web-page training to set up a CREST website where they will share work completed on their respective schools' projects. Islesboro students, aided by Island Institute intern Ryan Albright, are also redesigning the Islesboro Central School's website.

At the Deer Isle Historical Society, volunteers Tinker Crouch, Connie Wiberg and Paul Stubing couldn't say enough about the pleasure of helping students with their CREST research. "They've been so wonderful," said Crouch, current president of the society. "We want to keep them all." Stubing added that when he served as president of the society, he tried several times to get

school kids excited about the society's collections and their area's rich heritage. "This thrills us," he said. "We see that CREST is serving as a springboard, that some of the kids are becoming interested in more than just this particular project."

Joe Mills, who was looking for information on the "Island Boys" on that day in December, was one. "No," he said, looking up from an old newspaper clipping he was reading, "I haven't had any luck. I got side-tracked reading this."

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