

Grounding Learning in Place

Three case studies show how to grow passionate local leaders and activists.

by Gregory Smith

In Coffeerville, Oakman, and 19 other communities in rural Alabama, secondary school students have taken on the task of publishing community newspapers in towns where local journalists closed up shop decades ago. With the support of PACERS (Program for Academic and Cultural Excellence in Rural Schools), an initiative underwritten initially by the Ford and Annenberg Foundations, they gain the skills of media professionals and the commitment of engaged citizens:

PACERS, in short, generates passion. At a May 2005 convocation celebrating the program's accomplishments, student Ozzie Pugh said that attending a PACERS event was like coming to a family reunion. "PACERS is a life source, a

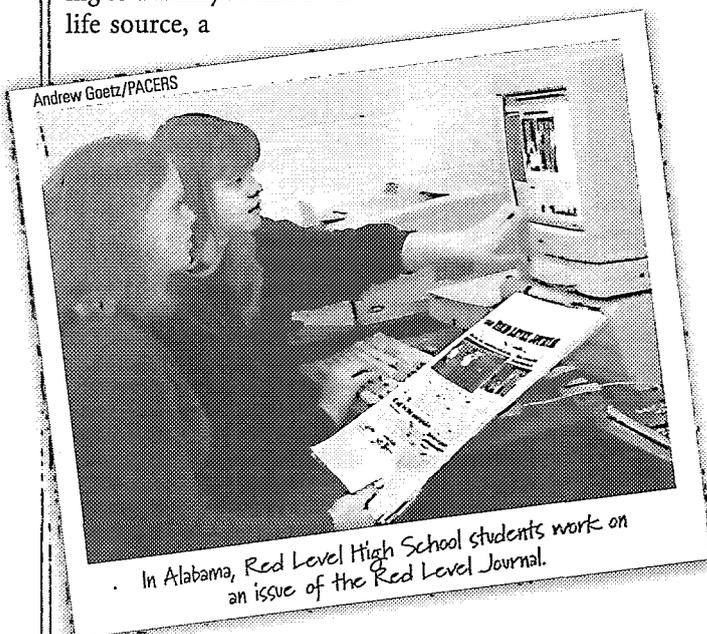
guide," said Pugh, now a graphic artist for a local paper in Montgomery, Alabama. "It taught us to help ourselves, to come up with ideas, to come up with a medium that helped our community. It gave students a chance to create voice."

Like Pugh, Laura Pittman, then a senior at Oakman High School, also spoke of voice. "I'm not talking about me speaking to you, I'm talking about that silent voice you hear when you read," she said, "where somebody has gone out and researched an issue, or investigated something. ... We help others determine what they want to believe. It has helped me feel proud when people in the community come up and say that my article helped them to decide where they stand."

PACERS "graduate" Fred Fluker, now on the staff of the *Detroit Free Press*, said that the opportunity to participate in the community newspaper project transformed his, and his classmates', identities. Instead of being passive students, they became "active citizens, public servants, and professional journalists, providing a voice for our community." The citizens of Coffeerville quickly warmed to their work. Adults began to congratulate them for their efforts and, being sensitive to their new role, the students made sure their work was worthy of praise. At one point, Fluker and his peers decided not to distribute an issue because it contained too many grammatical errors. They knew that a failure to meet high standards would affect their capacity to fulfill their community responsibilities.

Reclaiming a Place for the Local

PACERS represents an emerging approach to curriculum development called place- or community-based education, which seeks to link classrooms more tightly to their commu-



Andrew Goetz/PACERS

In Alabama, Red Level High School students work on an issue of the Red Level Journal.



nities and regions. In addition to the journalism project described above, PACERS has helped encourage teachers to document local art and history, to work with students to create new businesses, and to strengthen the teaching of science through the development of aquaculture and gardening projects. Place-based education works to cultivate students' knowledge of the unique characteristics of their home communities and to engage them in meaningful and authentic work. It begins with the belief that young people will be more likely to invest their time and energy in the care and support of the places where they live if they are familiar with local assets and come to see themselves as valued contributors to the common life of their families and neighbors.

Humanity faces major global challenges, and it is becoming increasingly clear that neither nation states nor transnational corporations display much willingness to invest the energy or resources needed to seriously address issues such as climate change, the peaking of oil production, or the dislocations caused by economic globalization. Major cultural and social adaptations will be required in coming decades if the wellbeing of human populations and the integrity of natural systems are to be protected and improved. It is not surprising that those who have the most at stake in the status quo are reluctant to embark upon a transformational agenda that could threaten their privilege and power. This means that meaningful change must take place outside the centers of current political and economic authority—and those places include the neighborhoods and communities where most citizens lead their lives.

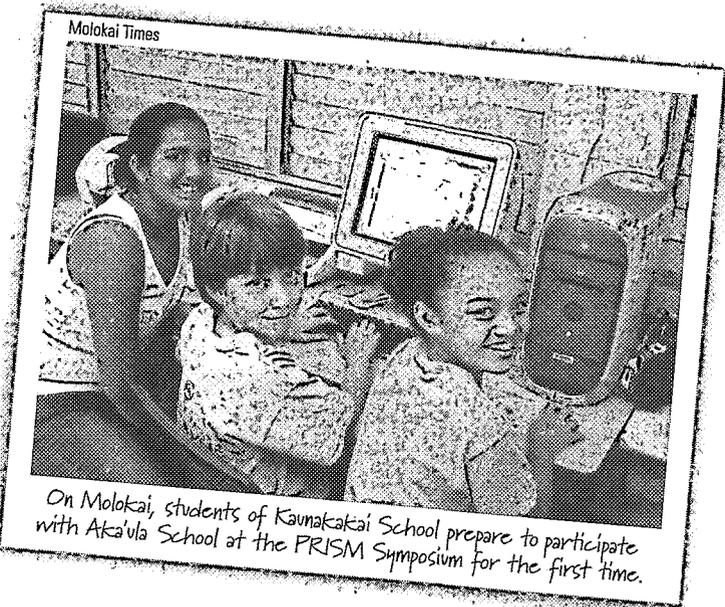
Public education in the United States and most of the world directs little attention to localities or to grooming cit-

izens to be involved in local affairs. Schools and their leaders instead aim to prepare young people to participate in a competitive market economy—a focus that tends to treat allegiance to particular communities and places as secondary to career and mobility. Moreover, curricula linked to standardized tests preclude lessons that could engage students in activities that address local issues, induct them into the give and take of participatory citizenship, and offer experiences likely to stimulate a connection to people and place.

Fortunately, the PACERS program and two other U.S. case studies described below—the Kualapu'u School on the Hawaiian island of Molokai and a high school in Lubec, Maine—show how schools and teachers who have adopted place-based educational approaches are now demonstrating ways to prepare today's young people to be the socially and environmentally responsible innovators that the future will require.

Light through a PRISM

In the mid-1990s, three teachers at the Kualapu'u School began an effort to infuse an exploration of pressing environmental issues into their work with fifth and sixth graders. At the time, Molokai was beginning to experience the development pressure previously encountered on the other islands of the Hawaiian chain. The teachers

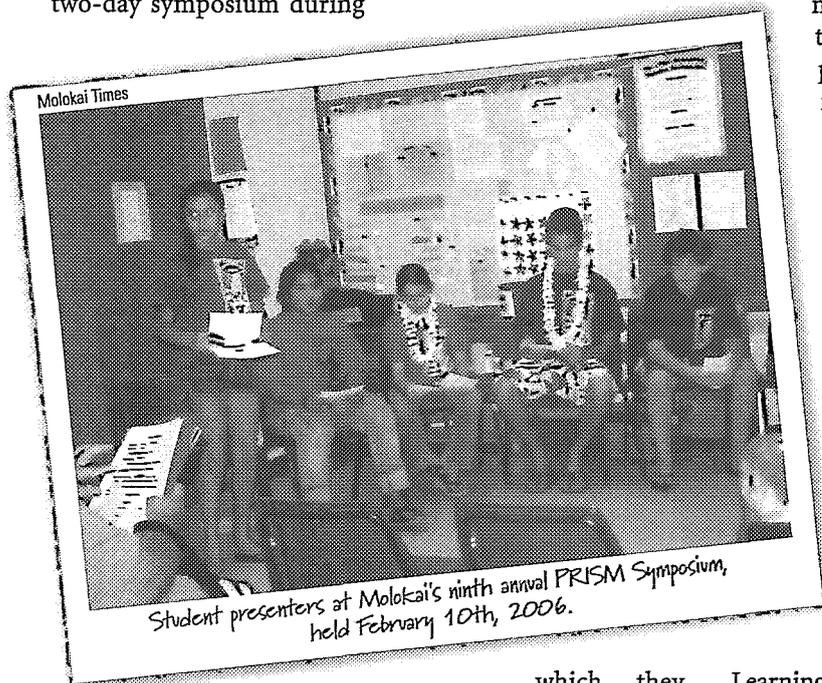


believed it was important for their students to learn about matters that would affect the wellbeing of the island's 7,500 residents, and the land and resources that had supported them for generations. In order to do that, they created a program called Providing Resolutions with Integrity for a Sustainable Molokai (PRISM), modeled on the work of Harold Hungerford and Trudi Volk, environmental educators at the University of Southern Illinois (USI).

The PRISM program brought students together with

resource managers to study a number of topics critical to community health, topics which students themselves selected. These included fishpond restoration, ecotourism impacts, native wildlife habitat loss, recycling, and water rights. Community members from outside organizations helped students uncover the information needed to develop reports that would be credible to island residents and decisionmakers. They also encouraged a systematic approach to research that greatly improved the quality of student work.

At the end of each academic year, students organized a two-day symposium during



Student presenters at Molokai's ninth annual PRISM Symposium, held February 10th, 2006.

which they presented findings to their families and neighbors—modeling a process that has come to influence other public meetings on the island—then developed action plans based on what they learned. The action plans have led the students to work with a state representative to compose and present a bottle bill (to encourage glass bottle recycling) to the state legislature, restore traditional fish ponds, write a column for the local paper, and set up a school-wide, and then an island-wide, recycling program.

The program quickly impressed island residents, who took pride in their children's ability to uncover the underlying issues in community debates and to present their findings in a public setting. By 2002, students' work at the Kualapu'u School had come to the attention of national observers as well. A news release from the website of Hawaii's Second District congressman, Ed Case, highlights the impact the project was having. "The U.S. Environmental Protection Agency Region 9 Office in San Francisco has singled out Kualapu'u School's PRISM program as a winner of the agency's 2003 Environmental Achievement Award for exceptional work and commitment to the environment," the release says. "All of us in the Second Congressional District and throughout our

Hawaii can be so very proud of the students who have made this amazing program a model of success and sustainability."

Ironically, curriculum constraints associated with the implementation of the federal No Child Left Behind Act (a 2001 U.S. law that sharply increased the role of standardized testing in public schools and, some say, decreased curriculum richness as a result) later led two of the founding teachers to create a charter middle school (grades 5–8) in an effort to continue this work. To make sure that it remains accessible to the island's largely low-income students, the new Aka'ula School has intentionally kept its tuition to no more than US\$1,000 a year even though its costs per student are closer to US\$7,000—an arrangement made possible by local fundraising, in addition to state and federal grants. During the 2004–05 academic year, the school enrolled 45 fifth through eighth graders. By the fall of 2006, that number had risen to 61.

A five-year study of the teachers' earlier work at the Kualapu'u School, by USI's Trudi Volk and Marie Cheak of Western Illinois University, helps explain why the island's residents are so interested in supporting an educational approach grounded in local concerns. In addition to enhancing students' capacity to analyze environmental issues, make presentations at public meetings, and participate in activities aimed at addressing community dilemmas, students also demonstrated significant gains in their ability to read diverse and complex texts, write reports for public consumption, and speak with clarity and confidence.

Learning for them became something meaningful and worthy of their attention, leading them to take on challenging tasks that required higher levels of mastery than those generally associated with their grade level. Students' work also resonated beyond the classroom into their island community, providing a model for the exploration of controversies that encourages the expression and careful consideration of multiple viewpoints in a safe and accepting environment.

Cultivating Possibilities

Eight thousand kilometers to the east of Molokai, students in a small high school in the Atlantic coastal town of Lubec, Maine, are engaged in comparable efforts to improve the long-term prospects of their own community, this time by focusing primarily on economic development issues.

Lubec and other villages and towns located on Cobscook Bay have experienced the wrenching loss of jobs and income encountered by many communities across the United States that have long depended upon resource extraction. In the 1940s and 1950s, Lubec was home to 20 sardine canneries; now only one remains. Per capita income for the roughly

2,000 town residents is approximately \$9,000 a year (U.S. per capita income is about \$22,000). Young people in the community see few opportunities for themselves when they graduate from high school, so many join the more than 25,000 young adults who have left Maine in the past decade, robbing the state of its most valuable resource. In an effort to jump-start their economy and create viable employment opportunities for their young people, community members in Lubec have actively supported science teachers at their kindergarten-through-12th-grade consolidated school in their efforts to incorporate marine studies and an aquaculture project into the curriculum.

Although initially viewed with skepticism by locals more accustomed to fish obtained the old-fashioned way, aquaculture has come to be seen as one of the few options available to restore the regional economy. In the mid-1990s, Lubec residents matched funds from the Rural Challenge, an educational reform initiative underwritten by the Annenberg Foundation, to launch a project aimed at teaching students the skills needed to participate in this emerging industry. A young science teacher at the school, Debbie Jamieson, adopted the project enthusiastically and saw it through its start-up years. She was followed by a fisheries scientist, Brian Leavitt, who had previously worked with the marine conservation group Atlantic Salmon. Together, their efforts over a decade resulted in an aquaculture program that has enjoyed sustained community support and has been well integrated into the school science offerings.

Initial grant funds were devoted to transforming an abandoned water treatment facility into an aquaculture lab with a variety of tanks used both to raise fish for commercial purposes and to conduct experiments. At the outset, Jamieson and her students hoped to raise Atlantic salmon, but without refrigeration equipment they found they were unable to cool water to the temperature needed for the salmon to survive. Instead they shifted their focus to farming tilapia, a tropical species that has thrived in the lab's conditions. These are sold to local restaurants and help to offset some of the cost of the project.

The students' other projects have also reaped valuable lessons. Seeking permission to farm mussels on a dock anchored in Cobscook Bay, for example, not only taught them how to deal with the challenges faced by any fish farming operation, such as predators and disease, but also how to negotiate state and federal bureaucracies. Exploring the possibility of harvesting sea urchin roe for exportation to Japan involved experiments to determine what combination of feed

would result in roe whose color matched the golden hue prized by Japanese consumers. Their labors were rewarded with an opportunity to share their findings at a scientific conference held at the New England Aquarium in Boston. Similar experiments were carried out on trout, with the aim of enhancing their growth rate.

In addition to gaining practical skills related to both aquaculture and hydroponic farming, students are learning to become entrepreneurs. Once the aquaculture lab was up and running, they developed plans and found funding to construct a greenhouse that uses water from the fish tanks to irrigate a variety of vegetables, which are then sold to local food outlets and restaurants. (This is a hugely important progression for a small town: the economic vitality of small communities across the United States depends upon the willingness of young adults to believe that they can create their own



economic opportunities and need not depend upon large corporate employers located elsewhere. Sadly, many who lack this belief and can leave, do leave, and more and more rural communities are abandoned to the elderly, the infirm, and the young adults unable or unwilling to move.)

Outside of the aquaculture lab, Leavitt and his students engaged in more formal scientific studies of local and regional ecosystems. One of these projects involved monitoring phytoplankton levels in Cobscook Bay and then contributing the findings to a statewide database. Leavitt had participated in similar studies while working for Atlantic Salmon in an effort to determine why fish in some sites were experiencing higher mortality rates than in others. After he began teaching at Lubec High School he created opportunities for students to

become involved in this research. They didn't believe him initially when he said that their work was part of a statewide monitoring effort, but after they saw that he was serious and realized the importance of what they were doing, their research activities became a source of great pride with the students.

Lubec High students are also involved in other similarly important work, collaborating with peers from other communities around Cobscook Bay to study ocean circulation patterns and locate places where nutrients or pollutants are likely to collect. They release drifting devices into the bay and track them using GPS recorders and data logging equipment. The information is then fed into computer models that convert their

tion, many pursuing coursework in marine sciences and engineering. Others have realized, through school-based enterprises, the possibilities for entrepreneurship in an otherwise economically depressed region.

The aquaculture and associated projects at Lubec High School have stimulated a sense of possibility that had faltered with declining fish harvests. Whether current activities initiated by the school and embraced by townspeople will be enough to reverse the economic downturn of the past decades remains an open question. What is clear, however, is that young people and their elders are demonstrating more faith in their own capacity to address these challenges in ways that could lead to positive outcomes. Without this faith, all Lubec can hope for is continued economic decline and the out-migration of its young. The development of an educational program grounded in local affairs is demonstrating that fortunes may be changed if people are able to link new ideas to learning and to collective action and investment. This is the real work of Lubec, and public school students are no longer outsiders to this process but critical participants.

Young People as Regenerative Resources

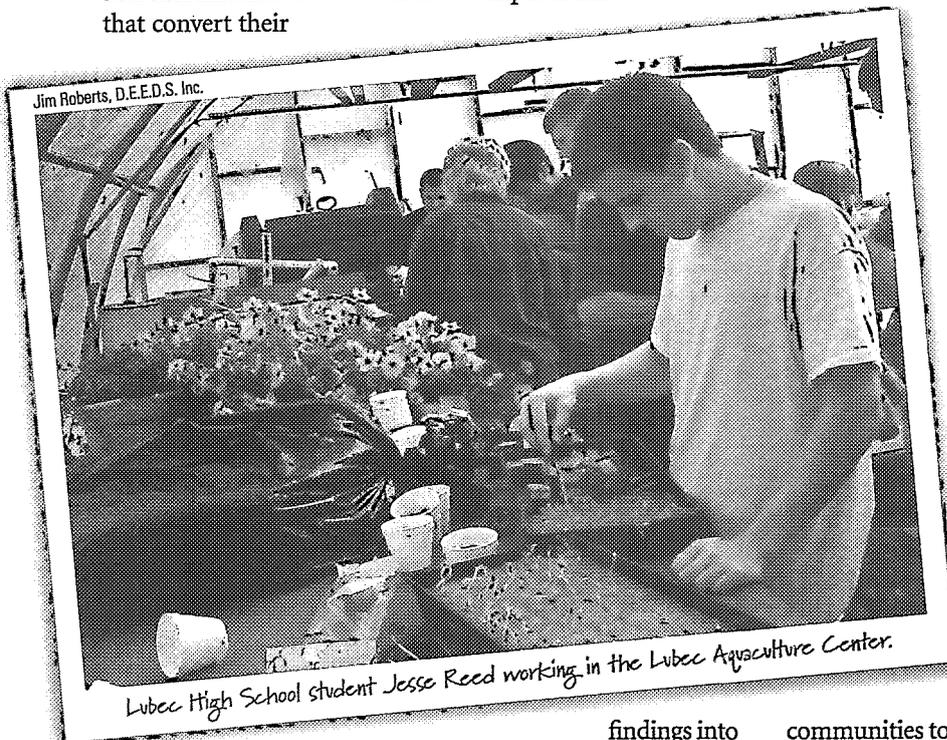
Making the transition to a world that is both ecologically sustainable and socially just will require people in thousands of

communities to show the imagination, good sense, and tenacity demonstrated by these young people in Alabama, Hawaii, and Maine. Although these examples are all from rural communities, similar efforts are taking places in cities from Boston to San Francisco, and other countries as diverse as India, Kenya, New Zealand, and Norway. It is imperative that educational approaches capable of engendering a connection to place and a commitment to action and leadership at the community and regional level become more widely practiced. Schools and classrooms that incorporate local interests, concerns, and affairs into their curricula, and which induct students into community processes, provide an important venue for accomplishing this end.

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For more information about issues raised in this story, visit www.worldwatch.org/www/learning.



Jim Roberts, D.E.E.D.S. Inc.
Lubec High School student Jesse Reed working in the Lubec Aquaculture Center.

findings into animated graphics used by local fishermen as well as federal agencies and national organizations.

Linking formal education to the aquaculture project and other important maritime issues has made the high school's curriculum more immediate and relevant to students, which is reducing dropout rates, increasing attendance, boosting student performance, and raising career aspirations. Project founder Debbie Jamieson and successor Brian Leavitt both observe that students who had developed reputations for discipline problems in regular classrooms often become deeply involved in classes when they can participate in meaningful hands-on learning. Likewise, some students who find reading a challenge have learned that understanding and filling out a state application for a mussel farm is something they can do. Reading, writing, and math also play into their work in marine science classes, and because students clearly see the purpose for these activities, they are more willing to invest the energy and attention required to be successful learners. More graduates from Lubec High School are going on to higher educa-



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