

Place-Based Education

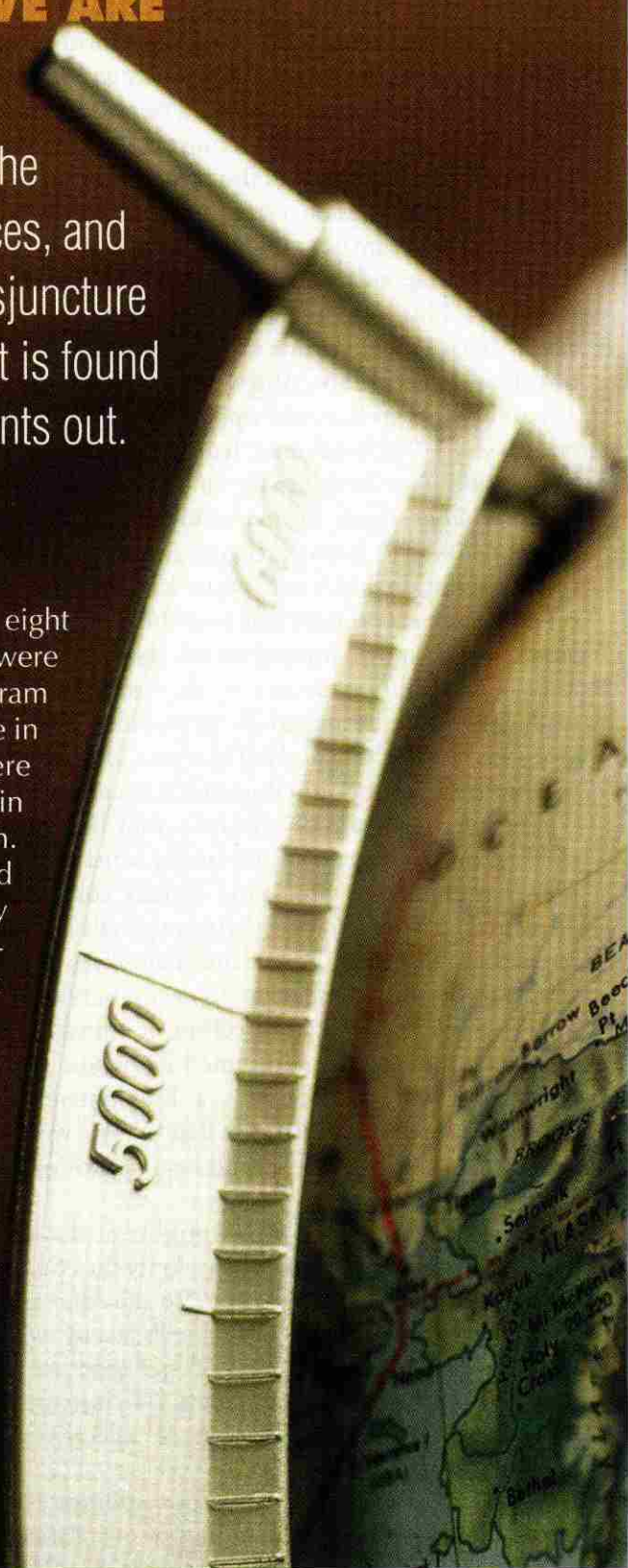
LEARNING TO BE WHERE WE ARE

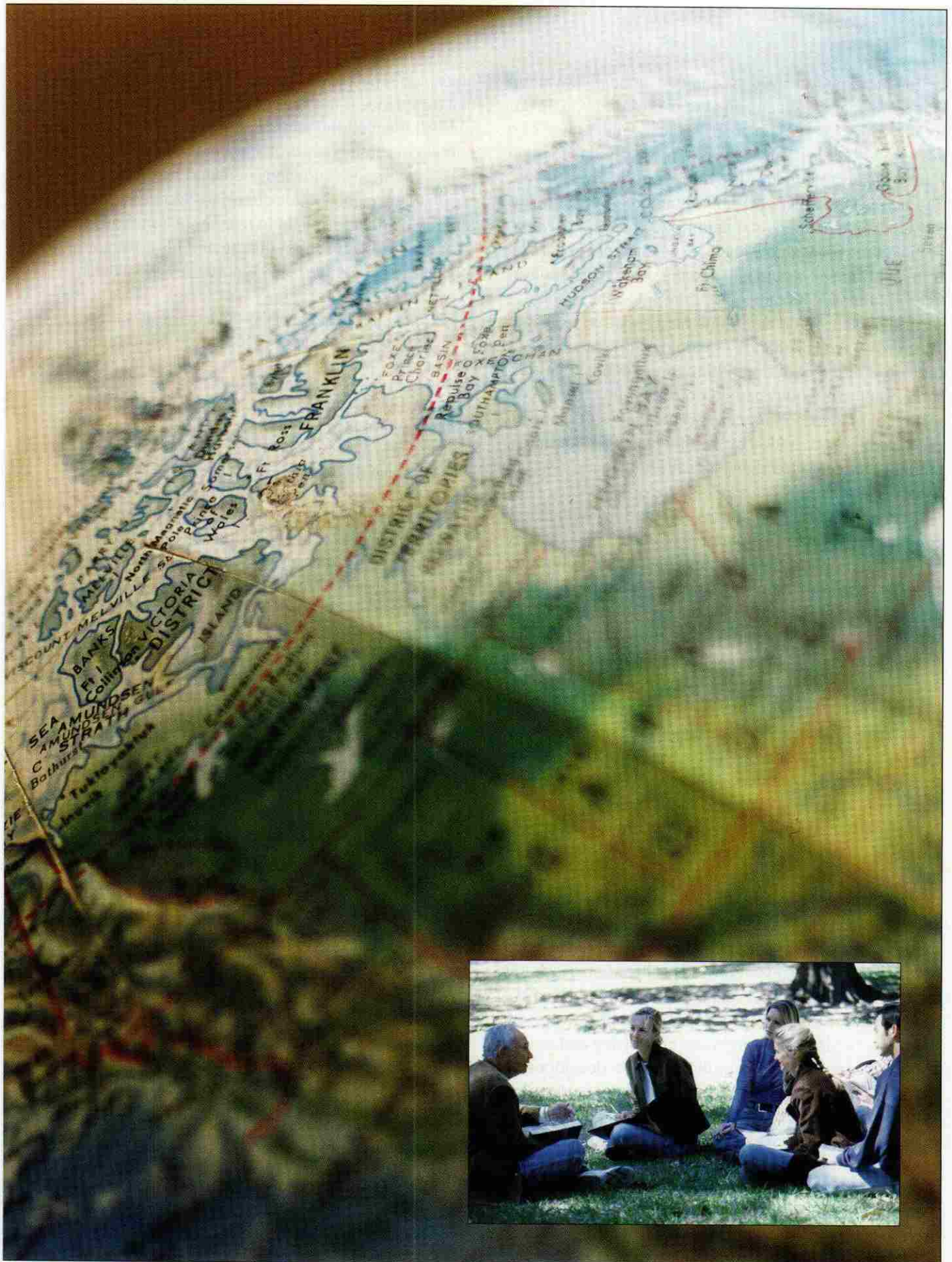
One of the primary strengths of place-based education is that it can adapt to the unique characteristics of particular places, and in this way it can help overcome the disjuncture between school and children's lives that is found in too many classrooms, Mr. Smith points out.

BY GREGORY A. SMITH

LAST SUMMER I spent a morning with eight or nine high school students who were members of an Upward Bound program based at Clatsop Community College in Astoria, Oregon. The students were working in the Neawanna Estuary in Seaside, about 22 miles to the south. The efforts of students before them had contributed much of the data used in a successfully funded urban renewal grant proposal aimed at transforming a set of abandoned mill ponds into a park and nature center. The job of the Upward Bound students for the preceding few weeks had been to tag and then locate with global positioning technology woody debris that makes good salmon habitat. Students from Seaside schools were mapping habitat for birds and other wildlife in a similar fashion. All this information would be channeled to the groups responsible for determining how this land could best be developed to support its wildlife populations and to provide local residents and tourists with a deeper understanding of what it takes to preserve and restore healthy ecosystems.

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The morning was overcast and cool enough to warrant care as we clambered into and out of the canoes to do our work. Wet clothes would not dry quickly under this cloud cover. Another challenge was not losing our knee-length rubber Wellingtons to the deep mud along the river's banks. The debris was everywhere, and the three-person teams in each canoe divided up different stretches of the river to map. Pulling up next to a log that stretched down into the water, one person would nail into the wood a bar code affixed to a plastic rectangle cut from a food container. A second person would determine our precise coordinates. The third — with dry hands — would record bar code, coordinates, and a brief description of the debris on a data sheet. Then we would paddle on to the next log or collection of branches. The work was not glamorous, and all of us were mud-speckled by the time we broke for lunch. Still, the students agreed that it beat sitting in a classroom listening to a lecture.

They enjoyed being outdoors and working with teachers who acted more like partners than supervisors. They liked the fun of negotiating riffles and being on the water together. It pleased them to be doing something that was clearly useful, and seeing their data transformed into maps was impressive. One young woman observed that she had recently watched a TV show about Japanese education and learned that students there were much more skilled in mathematics because they are given so many opportunities to apply their school learning to real-life situations. She believed that her work in the Neawanna was similar to this and that there was no reason these experiences could not be made available to more students.

My morning with these young people provides an example of an educational approach that is being encountered in a growing number of American schools. Called place-based education, its aim is to ground learning in local phenomena and students' lived experience. Although most human learning once occurred within the context of specific locales, the invention and proliferation of schools changed this. In schools, especially after the early elementary grades, teachers direct children's attention away from their own circumstances and ways of knowing and toward knowledge from other places that has been developed by strangers they most likely will never meet. Learning becomes something gained through reading texts, listening to lectures, or viewing videos rather than through experiencing full-bodied encounters with the world.

Although educators are often quick to say that schools are as much the "real world" as any place else, there is truth to the judgment that what happens in classrooms is qualitatively different from what happens elsewhere. In many

other places, people experience the world directly; in school, that experience is mediated, and the job of students — despite all the well-intentioned attempts to engage them as participants in the construction of meaning — is to internalize and master knowledge created by others.

John Dewey noted this disconnection between school and the world and sought to overcome it in the University of Chicago Lab School that he and his colleagues created at the end of the 19th century. Dewey wrote:

From the standpoint of the child, the great waste in the school comes from his inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning at school. That is the isolation of the school, its isolation from life. When the child gets into the schoolroom he has to put out of his mind a large part of the ideas, interests, and activities that predominate in his home and neighborhood. So the school, being unable to utilize this everyday experience, sets painfully to work, on another tack and by a variety of means, to arouse in the child an interest in school studies.¹

Dewey suggested that the problem lay in the fact that children possess minds that are primarily drawn to actual phenomena rather than to ideas about phenomena. I would go further and say that valuable knowledge for most children is knowledge that is directly related to their own social reality, knowledge that will allow them to engage in activities that are of service to and valued by those they love and respect.

Despite Dewey's efforts, his work at the University of Chicago Lab School remains more the exception than the rule in American classrooms. And the disconnection between children's lived experience and school learning has only been exacerbated by our national preoccupation with standardized test scores. In fundamental ways, our instructional and curricular decisions and practices violate the way our species learned how to negotiate the world prior to the Industrial Revolution. In *The Geography of Childhood*, biologist Gary Nabhan, a near dropout himself, puts it well:

It is a crime of deception — convincing people that their own visceral experience of the world hardly matters, and that pre-digested images hold more truth than the simplest time-tried oral tradition. We need to turn to learning about the land by being *on* the land, or better by being *in* the thick of it. That is the best way we can stay in touch with the fates of its

creatures, its indigenous cultures, its earthbound wisdom. That is the best way we can be in touch with ourselves.²

Not all students are deceived, of course. And my own interviews with potential dropouts suggest that such students remain on the margins of school in part because of their unwillingness to accept the pronouncements of teachers about what is or is not valuable knowledge. They know differently.

Educators who ground their curriculum in place are now offering alternative approaches to schooling that address Dewey's and Nabhan's concerns and engage a wide range of students in the demands and opportunities of learning. These educators can be found in rural and urban settings, in small schools and large, and in classrooms that focus on any and all curricular domains. They are inventing a wide range of experiences that allow students to connect what they are learning to their own lives, communities, and regions.

Because place-based education is by its nature specific to particular locales, generic curricular models are inappropriate. A review of place-based learning efforts, however, reveals five thematic patterns that can be adapted to different settings. I have organized the remainder of this article around them, and I offer them as a guide for teachers and community members interested in moving their own classrooms and schools in this direction.

CULTURAL STUDIES

Place-based education is not a new phenomenon. Jim Cummins and Dennis Sayers in *Brave New Schools* refer to the work of French educators in the early 20th century whose students collected and then compiled information about their own villages and sent the results to students in other parts of the country who were doing the same thing.³ In the 1970s, the Foxfire project in Georgia spurred a national movement aimed at investigating and documenting regional cultures across the country. The *Foxfire* magazines and then books were highly successful, linked as they were to widespread interest in rural folkways and the culture of Appalachia.

Teachers and students in other parts of the United States created similar publications, although these never achieved the popularity of *Foxfire*. In Alaska, *Kamai*, a collection of articles about Native Alaskan cultural practices, was published in the early 1980s. And on Kodiak Island, teachers

for a number of years published *Elwani*, an effort that is now being jump-started by members of the Alaska Rural Systemic Initiative, a project supported by the National Science Foundation to integrate Alaska Native knowledge into public school curricula throughout rural Alaska. In an article published over a decade ago, Carol Stumbo described her success in engaging students in a West Virginia town in the publishing of *Mantrap*, a journal that documented their parents' and grandparents' experiences working in the mining industry.⁴

Although the Foxfire movement itself has waned, ele-

PLACE-BASED EDUCATION IS NOT A NEW PHENOMENON.

ments of its methodology were picked up and extended by participants in the Annenberg Rural Challenge, a \$50-million project of the 1990s that sought to revitalize rural education. In a national teleconference in January 1999, one of the Annenberg teachers, Francisco Guajardo, described an especially powerful approach to cultural studies that he and his fellow teachers had adopted in the Llano Grande region of southern Texas. After migrating from Mexico as a child, Guajardo had grown up in this region. After completing college and the requirements for a teaching license, he returned to his hometown to raise his own children. Handed the mandated curriculum at the beginning of the year, he realized that he ran the risk of losing his students if he limited himself to its guidelines. He turned instead to the community, asking his students — in typical Foxfire fashion — to conduct interviews with older residents. In the process, the students collected photographs, audiotaped conversations, and videotaped their interactions with family members and neighbors. Eventually, the students collected enough material to mount a well-received public exhibit for the community.

This process was so successful that Guajardo's next group of students wanted to do the same thing. They went on to interview anyone who was willing to speak with them. Over time, the students began to notice a set of community assets that recurred in one interview after another. These then became the focus of their school studies. When interviewed in February 2002, Guajardo reported that, since he embraced this approach five years earlier, approximately 20 of his students have been accepted by Ivy League colleges and universities. Some graduates are now returning

to the Llano Grande region to make their own contributions to the community.

However, cultural studies do not have to be limited to oral histories and journalism. Students at the Akula School (K-12) in the Yup'ik village of Kasigluk, Alaska, have created a website that presents information about their school and community.⁵ The school is located in the Lower Kuskokwim School District in southwest Alaska, which is notable for its long-standing support of Yup'ik studies. Reflecting and celebrating this focus, the students' website is written in both the Yup'ik language and English and includes information about topics ranging from Yup'ik values and science to basketball, subsistence practices, and local elders. A similar project is now being developed in all the rural schools on Kodiak Island. There, the traditional Aleutiq language is not widely spoken, so these websites will be presented in English only. They will focus on details about each village that could be of interest to tourists, new teachers, new residents, and people from other parts of the island. This kind of project offers students the chance to use cutting-edge technologies to connect themselves more deeply to their own traditions.

At the Heartland Community School in Henderson, Nebraska, fourth-grade students devoted part of their time during an entire academic year to the writing and production of a play about an event in the late 1800s that involved some of their ancestors.⁶ Caught in a blizzard when they were returning home, some children sought refuge in a haystack and survived the storm. Two sisters, however, were not so fortunate. The next day their bodies were found, with the younger sister wrapped in the shawl of the older. Students researched the event and then integrated their findings into a play that was performed for 400 family members and neighbors, three-fourths of whom were related to the people depicted on-stage.

In all these examples, teachers and students take as the subject of their investigations local cultural or historical phenomena directly related to their lives and the lives of their families. What they learn is closely tied to their own experience, connecting them more directly to their place and providing them with opportunities to share their projects and creations with appreciative local audiences. Unlike curricula drawn from elsewhere and transmitted by a school system more concerned about the perpetuation of national rather than local knowledge, these school studies build on the familiar and then extend it. This curricular focus also validates the culture and experience of students' families, acknowledging them as worthy of inquiry.

This approach varies considerably from Willard Waller's judgment, made in the 1930s but still true today, that

the topics included in school curricula tend to be urban and middle class and are experienced by children compelled to attend school as a species of cultural imposition and domination.⁷ Although members of the middle and upper-middle classes in the U.S. often decry the anti-intellectualism of American popular culture, this stance may be as much a political statement as it is a rejection of the life of the mind. What cultural studies that focus on the local demonstrate is that the ability to analyze and synthesize can be cultivated at least as well from materials that are directly experienced or investigated by students. Teaching in this way does not require the elimination of nonlocal knowledge so much as the simple inclusion of the local. From this vantage point, teachers can then direct their students to the regional, national, or international.

NATURE STUDIES

An investigation of local natural phenomena can have comparable benefits and serve as the foundation on which investigations of more distant or abstract phenomena can be constructed. Children often demonstrate a seemingly inborn curiosity about the physical world, but this curiosity is rarely tapped or satisfied in schools. District or state curriculum mandates, coupled with textbooks written for a national market, tend to focus on definitions and general principles rather than on questions drawn from children's immediate experiences. The result is that scientific study becomes detached from the world rather than part of it. Although this approach is appealing to some students, it loses many. Furthermore, it does little to teach children about the requirements and opportunities presented by their own place in the world.⁸

The Environmental Middle School, created in Portland, Oregon, in the mid-1990s, has explicitly placed local natural phenomena at the center of its educational efforts. Enrolling approximately 200 students in classes composed of sixth- through eighth-graders, it presents a curriculum focused on the broad topics of rivers, mountains, and forests. For an entire academic year, lessons in social studies, science, language arts, and math will use one of these broad topics as the organizing hub around which units are constructed. Students might begin, for example, with an in-depth study of the Willamette and Columbia Rivers and their many tributaries in northern Oregon and southern Washington. Because the school is centrally located on public transportation routes, students are able to make frequent field trips to local rivers, where they monitor sites over time, conduct water-quality tests, and observe wildlife.

The school week is scheduled so that Tuesdays and Thursdays can be used for work in the community or in the field. Mondays, Wednesdays, and Fridays are reserved for more typical classroom activities. Once they have become knowledgeable about their own watershed, the students then investigate rivers in other parts of the United States and the rest of the world.

Moreover, the students' efforts are not limited to observation and testing; they also contribute to the restoration of riparian areas. For a number of years, they have pulled invasive species, such as Siberian blackberries and English ivy, from along the banks of Johnson Creek and other sites in the Portland metropolitan area and planted native species as part of a communitywide effort to improve salmon habitat and revitalize urban wild places.⁹

The students have created a living laboratory out of the school grounds. They have designed, planted, and maintained vegetable and butterfly gardens; created a small wetland; and removed sizable sections of lawn, replanting them with native species. They maintain a compost pile, worm bins, and an extensive recycling program. They have at different times raised native species and then sold them to neighbors, educating them about the merits of using local plants in home gardens.

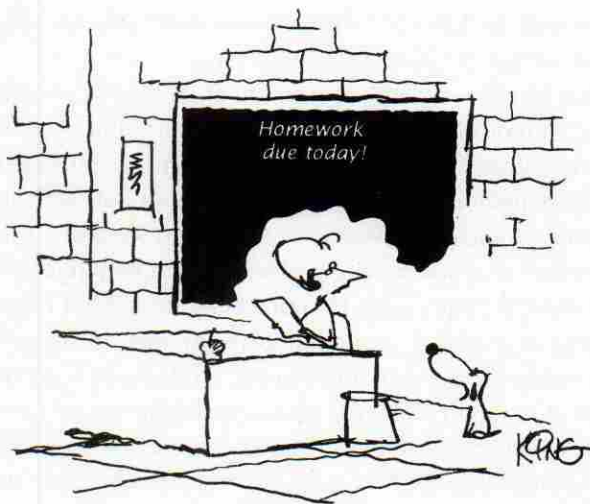
In addition to their involvement in environmentally based activities, students at this school devote a share of their Tuesdays and Thursdays to service to the human community. They regularly serve meals at Blanchet House for homeless or low-income people, help restock the local food bank, act as guides on nature walks for elementary school students, and work as reading tutors for younger children enrolled in the primary school with which the school shares

its building. For students at EMS, the community and surroundings become regular sites of learning activities and reflection, breaking down the boundary between classrooms and the world beyond. The division that Dewey noted so often exists between the child's experience and what he or she encounters in school is reduced, and the result is higher engagement and student achievement. Students at the Environmental Middle School consistently perform at high levels in comparison to their peers in other schools, despite the facts that their teachers do not focus on test preparation and that the school has been notably successful in attracting a diverse student population to its program.

Teachers who incorporate the study of the natural world into their curriculum reap the rich benefits of simply getting students outside the classroom and taking advantage of their curiosity. A number of years ago, a parent of students at an elementary school in Fairbanks, Alaska, observed to the principal that it was a shame that students in school demonstrated so little of the strong interest in the world that they expressed when they were at home.¹⁰ The principal and this parent began to meet with interested community members and teachers, and within two to three years they had begun a school reform process that attracted grants of more than \$750,000 aimed at reshaping the curriculum to focus more on science and math, using the natural world as the basis for many of their studies. School achievement improved, and students from a school previously viewed as underperforming began to be recognized by teachers at the feeder middle school for their depth of scientific understanding and for their problem-solving abilities. The students' own visceral experience of the world was valued, and the school was embedded in the world rather than isolated from it.

REAL-WORLD PROBLEM SOLVING

A third approach to place-based education involves engaging students in the identification of school or community issues that they would like to investigate and address. Called real-world problem solving, this orientation to curriculum development is deeply grounded in particular places and highly democratic in its processes.¹¹ Students play a pivotal role in identifying problems, selecting one as a class focus, studying its characteristics and dynamics, developing potential solutions, and then organizing and participating in efforts to solve the problem. It is the job of the teacher to facilitate this process, linking the problem to the required curriculum, finding resources, and acting as a general troubleshooter. Real-world problem solving, like cultural or nature studies, gets children out of the class-



"You have a Timmy Johnson in your class. If he claims I ate his homework, don't fall for it."

room and into their school, the schoolyard, and their neighborhood. It can result in as many different projects as there are classrooms and students.

Fifth-grade students in an elementary school in North Portland identified their playground and an adjoining park as the problem they wished to address. The two locales were graffiti-marred and subject to vandalism and did not strike students as welcoming or safe places for them to play. With their teacher they developed a plan to clean up the area and redesign some of its elements to create a source of pride for the school and its surrounding neighborhood. After working for several weeks on their plans, they organized a Saturday work party that drew scores of parents and neighbors and resulted in a major transformation of the sites. The following week, Portland's park commissioner came to the school to commend the students for their efforts.

At another school, students became concerned about the way new construction on the campus had resulted in the pooling of runoff water in a stand of trees. Worried that the perpetuation of this condition would eventually destroy the trees, the students developed and enacted a plan to redirect the water to a small wetland they designed and constructed. Upon finishing this project, they learned that drainage patterns on their campus were also being affected by construction projects immediately beyond its boundaries. Although they did not altogether overcome the problem, they learned that environmental problems cannot be solved in isolation and often involve negotiating with a variety of actors.

Other real-world problem-solving projects have focused on such things as native plant restoration, the creation of a school composting center, the planting of a butterfly garden, the implementation of water conservation strategies, and the writing of a book about earthquakes for younger students. Such projects do not need to focus only on environmental issues. Students have also investigated the extent of hunger and homelessness in the neighborhood of their school and then developed responses designed to help address these issues.

Students in one of my own son's classrooms worked for a year to redesign and then restore a greenspace on the school grounds that had been superficially tended for a number of years. Speaking with more than a dozen students after this project was completed, I was impressed by the number who noted that restoring the greenspace had led them to believe that they were capable of addressing other problem areas around the school. Other students indicated that they were more willing than they had been in the past to urge their peers to be careful about the plant-

ings and to avoid littering. A few speculated that they would even be willing to speak up or go get their parents if they saw people littering or engaging in damaging behavior in a city park a few blocks from the school. Their comments suggest that they had become more cognizant of their status as inhabitants of a particular place and more aware of the obligations that that entails.

INTERNSHIPS AND ENTREPRENEURIAL OPPORTUNITIES

One of the factors that lead many young people to leave the communities where they have grown up — especially if those communities are rural or inner-city — is the absence of viable economic opportunities for them once they have graduated from high school. This can create the expectation on their part and on the part of people who know them that they will live their lives elsewhere once they have earned their diplomas. A young Aleutiq woman I recently met on Kodiak Island had grown up in the small village of Port Lions. Throughout her childhood, people regularly asked where she planned to go once she was an adult. No one thought that she would stay. It was only after she had gone away that she began to grasp the importance of her cultural roots. With an education degree in hand, she was able to come back to Port Lions and reclaim her place in her home community for the foreseeable future.

Educators in some schools are providing their students with the chance to think through the relationship between vocation and place in ways that supersede the common belief in industrial societies that young people need to leave home in order to find themselves and establish a place in the world. In doing so, these educators provide an additional model of place-based education.

The Media Academy at Fremont High School in Oakland, California, has been engaged in this kind of effort for more than 15 years.¹² Serving 10th- through 12th-graders identified in junior high as potential dropouts with academic promise, the Media Academy has shaped a program that is academically demanding, socially relevant, and directly responsible for publishing the school newspaper and yearbook, a community newspaper, and numerous public service announcements. Students are encouraged to research and write about topics that are of interest to them and their peers. They determine the journalistic agendas they wish to pursue. These students have the opportunity to work with local media professionals, some of whom grew up in the same neighborhoods. These professionals teach portions of the classes, and summer in-

ternships are available to interested students. Young people who often believe that good jobs are simply unattainable because of who they are and where they live come to see that work worthy of their desire is within their reach if they decide to pursue it. Seeing this has led to dramatic shifts in engagement and achievement on the part of program participants, many of whom now graduate from high school and go on to community colleges or universities. The success of the program at Fremont High School has led to the creation of five other schools-within-a-school with their own curricular focuses.

In rural communities, the internship experiences found in a large city can be scarce. Rural Entrepreneurship through Action Learning (REAL) Enterprises, a North Carolina-based project, strives to address this challenge. With programs now in 30 states, REAL Enterprises helps high school, community college, and even younger students to meet community needs that would otherwise be neglected. With the help of teachers and small start-up loans, students complete community surveys to identify unmet needs and are encouraged to gain the skills and then set up small businesses to address them.

Toni Haas, former co-president of the Annenberg Rural Challenge and a long-term supporter of such efforts, describes how a young woman in North Carolina got into the shoe repair business.¹³ The woman and a friend discovered that there was no one in their small town who was willing or able to fix worn or damaged shoes. Believing that this was something they could do and might actually enjoy, they learned the basics of shoe repair and were able to purchase the equipment to set up shop with a loan from REAL Enterprises. In the early stages of her entrepreneurial venture, the girl's father refused to take her seriously. He thought that she was just pursuing a pipe dream. Once she had started her business, his tone changed, and he began bragging about what his daughter was accomplishing every chance he got.

Too often in inner cities and rural communities, residents fall into the rut of thinking that their economic welfare is dependent on decisions and investments made by outsiders. A handful of places do benefit from the infusion of resources from elsewhere. But many places do not. High levels of poverty and the out-migration of the ablest are the results. Young people primed to seek or create their own economic opportunities where they live enrich their communities and extend their roots more deeply into their own home ground. In addition to helping young people learn about local culture, natural phenomena, and problems, a place-based education that links school learning to locally available occupational opportunities provides

young people with the confidence and initiative they need both to remain in their communities and to be of service to their families and neighbors.

INDUCTION INTO COMMUNITY PROCESSES

The fifth and perhaps most comprehensive approach to place-based education involves drawing students not only into the economic life of their community but also into its decision-making processes. The aim of this approach is to turn schools and the young people they serve into genuine intellectual resources that can be tapped by government agencies and others in efforts to address important community needs.

Neal Maine, a retired science teacher and a member of the board of directors of the Annenberg Rural Challenge during its years of operation, has been instrumental in giving form to these ideas in his home community of Seaside, Oregon. His involvement with the Annenberg Rural Challenge has helped disseminate his ideas to many other places, something that can be seen in the evaluations of the Annenberg projects. Maine is deeply committed to preparing young people to assume active roles as participants in community processes, asserting that children are as much citizens as adults and need to be given opportunities to share their knowledge, perspectives, and insights with regard to important community issues. He believes that young people are likely to develop the skills and dispositions associated with participatory democracy through a process similar to Little League coaching. We do not teach children how to pitch and catch and run by asking them to read books or watch videotapes. We might draw on these me-



"Well, my self-esteem has just been dealt another crushing blow."

dia for one purpose or another, but the real learning comes from actual involvement in the game.

A few years ago, Maine connected a class of fifth-graders and their teacher with the county parks commission. Members of the commission were interested in installing new playground equipment but wanted more public input regarding the community's needs. The fifth-graders provided them with such information — from the viewpoint of children. Students visited all the county parks in Clatsop County, surveyed what was available, and then prepared a report and presentation for the commissioners. They noted a need for more playground equipment suitable for primary and preschool children. Maine suspects that their recommendation was partly tied to their desire not to be bothered by younger siblings while they played on slides and monkey bars. Nevertheless, participating in this kind of investigation and in the public hearings associated with it contributed to these fifth-graders' grasp of what citizenship entails.

On another occasion, the city fire department approached a classroom of older students and asked them to administer a questionnaire to residents about whether or not they changed the batteries in their smoke detectors when the clocks were turned back from daylight-saving time to standard time each fall. Citizens were annually encouraged to do this via public service announcements, but no one in Seaside knew whether or not people were in fact complying with the recommendation. Sampling the community, students found that only a small percentage of families in fact changed the batteries in their smoke detectors at this time, indicating to the fire department that another approach might be needed to address this critical public safety issue.

A high school calculus class was able to assist emergency planning agencies in Seaside with another important matter related to public safety. The coastal area where Seaside is located has been the site of major tidal waves in the past and will be inundated with potentially catastrophic tsunamis in the future. Each Wednesday evening, a test of the alarm system is conducted, much as tornado alarms are tested in the Midwest. Emergency planners had access to a software program that would allow them to model how much of the force of tidal waves of varying sizes would be absorbed by the buildings closest to the beach and how far back these waves would travel. However, they did not have enough people to take all the measurements needed to feed into the program. This is where the calculus students came in. This exercise gave them the opportunity to see how mathematics is used in the real world and also to contribute something of value to their

community. Using trigonometric algorithms, students determined the dimensions of all the structures on the tsunami plain, took photographs, and compiled these into a hard-copy volume and CD-ROM that they presented to planners.

Middle school students have directed their energies to equally important but less dramatic topics. In the late 1990s students in an entire middle school investigated six vital community functions: natural resources, arts and communication, business and management, health and safety, human resources, and infrastructure and engineering. Each of these domains is drawn from the occupational categories outlined by the Oregon Department of Education in guidelines for the state's Certificate of Advanced Mastery, a keystone in Oregon's most recent education reform initiative.

The students who focused on business and management discovered that their middle school peers spent an annual total of \$364,000 on discretionary purchases. The great majority of these dollars were spent in Portland, where the young people believed they could find a greater variety of products and better service than they could find locally. They asserted that if local merchants were interested in gaining a greater proportion of those dollars, they would need to better understand the needs and desires of middle school students. Given the fact that these reports were presented to the Seaside City Council in an open forum, the students knew that they had the ear of community leaders and that their observations might make a difference.

Similar projects can be found in other urban and rural communities, as well. A course that focuses on environmental justice at the Greater Eggleston Community High School in Boston has taken on the complex topic of air quality. Founded by parents interested in developing community leaders among their young people, the high school is one of the Boston Public School District's 14 pilot schools. Elaine Senechal, who teaches the course on environmental justice, reports that student activism has resulted in the introduction of state-of-the-art air-quality monitoring equipment into the Roxbury neighborhood, where the school is located.¹⁴ Air quality in Roxbury — the site of the city's bus lot as well as heavy truck traffic — is noticeably poor. In the past year, students have also lobbied for state legislation that would give people in communities affected by polluted air the same protection now given to endangered species. Students in Senechal's class gather scientific information, master it, and then explain it to their neighbors, to agency personnel, and to politicians. They are learning how to work at the intersection of science and politics in the service of their community.

In Eastport, Maine, students are engaged in similar environmental monitoring, although their efforts are directed to the detection of red tides and other water-borne pathogens that affect the clamming and sea urchin industries.¹⁵ With the help of a biology teacher, students regularly sample water quality in the mudflats adjoining the Bay of Fundy and then test these samples in a lab they and fellow students constructed out of two 40-foot x 15-foot trailers purchased at a local auction. Information they have gathered is entered on maps developed by other students in a computer class at the local high school and then made available to the city and other agencies that receive requests from clambers about current conditions in local mudflats.

Students in each of these settings have the opportunity to participate in learning activities that are both significant academically and valuable to their communities. These activities overcome the division between the classroom and the world beyond that Dewey found so troubling. They induct students into community membership and into the life of the mind.

Even more significantly, these activities help students learn and do things that contribute to the well-being of others. One of the great drawbacks in the way public schools sequester young people from the lives of their loved ones and other community members is that children have so few opportunities to give back to others in ways that validate their own existence. Alienation is often the consequence of the absence of experiences that confirm our value to the people with whom we share our lives. Efforts to induct students into their communities in a manner that allows them to perform important tasks or to share their perspectives about local issues can provide exactly this kind of confirmation. It is these experiences that solidify the relationship between children and the places where they grow up, establishing the bonds essential to both the care and the long-term sustainability of people's home communities.

CHOOSING A TRANSFORMATIONAL AGENDA

Place-based education can take a wide range of forms. One of its primary strengths is that it can adapt to the unique characteristics of particular places, and in this way it can help overcome the disjuncture between school and children's lives that is found in too many classrooms. Yet, despite the variability, there are some common elements.

The first and most obvious is that teachers and students

turn to phenomena immediately around them as the foundation for curriculum development. Using these experiences as a base, they can then examine more distant and abstract knowledge from other places.

A second critical characteristic of place-based education is its emphasis on learning experiences that allow students to become the creators of knowledge rather than the consumers of knowledge created by others. This is what good graduate school education encourages, and there is

TEACHERS MUST BECOME THE CURRICULUM CREATORS.

no reason to deny younger students similar opportunities.

Third, again as with good graduate school education, students' questions and concerns play a central role in determining what is studied. Student ownership and engagement are much more likely to emerge when the students have had the chance to participate in the creation of their own learning agendas.

Fourth, teachers in such settings act as experienced guides, co-learners, and brokers of community resources and learning possibilities. Their expertise lies not so much in their stored knowledge — although this is important — as in their capacity to help students acquire the skills and dispositions of effective learners.

The fifth common element found in these different examples of place-based education is that the wall between school and community becomes much more permeable and is crossed with frequency. Community members can take an active role in the classroom, and students can play an active role in the community. Entering the community, students have the chance to participate in activities — from service to data gathering and from planning to presentations — that are valued by the adults who are important to them. Children are primed to learn things that bring them genuine praise and the satisfaction that comes from helping others. Finally, students' work is assessed in the same way as the work of any person is assessed: on the basis of its competence and its contribution to community well-being and sustainability.

It must also be acknowledged that educators who wish to move in this direction will face a number of challenges, many of which are deeply rooted in the practices, structures, and philosophical premises commonly encountered in American schools. Teachers must become the creators

of curriculum rather than the dispensers of curriculum developed by others. They must become able to make the link between the unpredictable activities that can happen beyond the classroom and student performance standards set by the district or state. Educators and community members must set aside the assumption that what now passes for legitimate learning — the kind necessary to score well on standardized tests — happens only in classrooms.

For place-based education to work, teachers will have to relax their reliance on academic disciplines as the primary framework for making curricular decisions, and parents will need to accept more ambiguous measures of student learning that are tied to the completion of projects that integrate rather than separate school subjects. Agencies and organizations outside of the school, including businesses, must come to see themselves as partners in the education of children, and they must be willing to accept interns and provide multiple learning opportunities for younger members of the community. Finally, for place-based education to work well, adults will need to see children as citizens who participate fully in community processes, and they must make space for their voices and contributions, as well as the time needed to prepare them to use that space effectively.

Such changes will not be easy to initiate. In some respects, they require a fundamental rethinking of what it is that we mean by education and a reevaluation of the way children are provided with the experiences they require to become fully participating members of adult society. Despite the radical nature of place-based education, the fact that teachers and students around the United States are experimenting with these approaches in ways that are generating significant student achievement suggests that adopting them is not something that will necessitate the abandonment of our current educational system.¹⁶ These are changes that can be introduced when the opportunity presents itself and then allowed to grow at their own pace.

Place-based education holds out the potential of resituating learning within the context of communities. Knowing the local well enables people to become more skillful and confident about their capacity to shape their own lives in ways that will benefit themselves and their children and grandchildren. Although this approach could lead to parochialism, that need not happen during an era when electronic communication allows for the easy exchange of ideas, images, and even artifacts. While demonstrating loyalty and commitment to their own communities and culture, individuals and groups of individuals can still learn from the experiences of others in both similar and dissimilar places.

The primary value of place-based education lies in the way that it serves to strengthen children's connections to others and to the regions in which they live. It enhances achievement, but, more important, it helps overcome the alienation and isolation of individuals that have become hallmarks of modernity. By reconnecting rather than separating children from the world, place-based education serves both individuals and communities, helping individuals to experience the value they hold for others and allowing communities to benefit from the commitment and contributions of their members. The promise of place-based education bears careful consideration by education policy makers and practitioners, as well as by the general public. Instead of simply focusing more closely on practices that we know are ineffective for large numbers of students — an unfortunate consequence of the standards movement — place-based education has the potential to transform the very nature of schools.

1. John Dewey, *School and Society*, in Martin Dworkin, ed., *Dewey on Education* (New York: Teachers College Press, 1959), pp. 76-78.
2. Gary Paul Nabhan and Stephen Trimble, *The Geography of Childhood: Why Children Need Wild Places* (Boston: Beacon Press, 1994), pp. 106-7.
3. Jim Cummins and Dennis Sayers, *Brave New Schools: Challenging Cultural Illiteracy Through Global Learning Networks* (New York: St. Martin's Press, 1995).
4. Carol Stumbo, "Teachers and Learning," *Harvard Educational Review*, Spring 1989, pp. 87-97.
5. Rural Challenge Research and Evaluation Program, *Living and Learning in Rural Schools and Communities: A Report to the Annenberg Rural Challenge* (Cambridge, Mass.: Harvard Graduate School of Education, 1999), pp. 41-46.
6. *Ibid.*, pp. 52-57.
7. Willard Waller, *The Sociology of Teaching* (1932; reprint, New York: Wiley, 1967).
8. The Orion Society has been an active sponsor of place-based education that focuses on natural phenomena. A variety of helpful teaching ideas can be found in *Stories in the Land: A Place-Based Environmental Anthology* (Great Barrington, Mass.: Orion Society, 1998); and Clare Walker Leslie, John Tallmadge, and Tom Wessels, *Into the Field: A Guide to Locally Focused Teaching* (Great Barrington, Mass.: Orion Society, 1999).
9. See the account of the Environmental Middle School in Gregory Smith and Dilafruz Williams, eds., *Ecological Education in Action: On Weaving Education, Culture, and the Environment* (New York: State University of New York Press, 1999), pp. 79-102.
10. David Hagstrom, "The Denali Project," in Gregory Smith, ed., *Public Schools That Work: Creating Community* (New York: Routledge, 1993), pp. 68-85.
11. Nancy Nagel, *Teaching Through Real-World Problem Solving: The Power of Integrative Teaching* (New York: Corwin, 1996).
12. Larry F. Guthrie and Grace Pung Guthrie, "Linking Classrooms and Communities: The Health and Media Academies in Oakland," in Smith, pp. 1129-54.
13. Toni Haas, "Schools in Communities: New Ways to Work Together," in Smith, pp. 215-46.
14. Personal communication, February 2001.
15. Rural Challenge Research and Evaluation Program, pp. 63-68.
16. Gerald Lieberman and Linda Hoody, *Closing the Achievement Gap: Using the Environment as an Integrating Context* (San Diego: State Education and Environment Roundtable, 1999).