

LOU AUGUST: INTERFACE WITH WILDERNESS

The sign said "RESTRICTED AREA," but the backpacking students pressed on, following their trusted guide. He was, after all, a world-famous volcanologist, and *he* was still alive. After another five miles, the memory of the sign was a burnt ember in their minds as they made their way to the lava dome. They were there to do geologic and biologic monitoring inside the blast zone at Mount Saint Helens.

For the first time since he left Detroit in the late '80s and built a lodge on Mt. Rainier, Lou August, founder and director of the Wilderness Technology Alliance (WTA), will be settling in an urban area when he moves to Washington, D.C. in January 2003. The regional programs established through WTA in Washington state that get "at-risk" students — many of them from urban areas like Seattle — interfacing with both nature and technology, volcanoes, even — are about to explode onto the national scene.

EYES ON THE MOUNTAIN

The path up the mountain was not easy, but worth it. August's lessons in forming up his alliance carry over into other disciplines, other lives: Persistence toward a goal — keeping an eye on the mountain as one hikes the trail, even if it goes out of sight — this is a concept with which August is very familiar. August got disparate groups and individuals working together when it didn't look possible.

"We partnered with Macromedia and OSPI (Office of the Superintendent of Public Instruction, Washington state's education agency) to create a project-

based curriculum in multimedia. The teachers involved in our 2000 program are now the primary trainers for the state in this curriculum. OSPI has gained great prominence for partnering to create this curriculum, and the opportunity to do so with Macromedia came from the WTA and our Multimedia program."

On a programmatic level, WTA ran three programs on three federal lands this summer. "One group built trails and did Geographic Information System (GIS) mapping for the Bureau of Land Management (BLM). One group did a landscape survey for Olympic National Park." And the third group, the volcano hikers, made it back to share their stories. See <www.handsontheland.org/manage/service_learning/service_results.cfm>.

SPREADING CROSS-COUNTRY

August has attracted believers in the right places. National education and technology magazine editor in chief Bernard Percy of *Converge* met and was deeply impressed with August a few years ago; writer Susan Abdulezer interviewed August, and her article was published as a cover story in May 2001 (visit <www.convergemag.com>). Since then, how have things been progressing for the WTA?

"Very nicely," he said. "We ended up winning a first-ever national contract where students do environmental education Web development for the federal government. We created the Web site at <www.handsontheland.org> and meet monthly with the directors of environmental education in Washington, D.C.

from the U.S. Forest Service, the National Park Service, the Bureau of Land Management, the Environmental Protection Agency and others."

WTA also won a major grant from the Paul G. Allen Foundation. Now, Lockheed Martin is considering sponsoring Washington, D.C. schools in the program, as well as Raleigh-Durham, N.C. Schools.

Even the Discovery Channel is considering being a partner in the project with D.C. schools. "Their vice president attended the meeting with myself, the vice president of Lockheed, the vice president of D.C. schools, the Environmental Protection Agency director of Environmental Education and others. During the meeting, the D.C. schools director of technology 'whipped out' his *Converge* magazine and told the group he knew all about me before we ever contacted him," said August.

The WTA's Hands on the Land Program was inducted into the Smithsonian Institution during a ceremony in Washington D.C. in June 2002 for its revolutionary use of technology in environmental education. Also this year, the WTA won a Golden Apple Award from Washington Gov. Gary Locke, one of Washington's highest awards for education excellence.

MULTIMEDIA SUMMIT, RUGGED COMPUTERS

Currently, August is gearing up to hold WTA's first "student technology enterprise summit" where students and teachers from about 40 "WildTech" schools will converge to learn and

share best practices for student-run enterprises in multimedia and computer hardware. "We created a 400-page 'enterprise curriculum' to provide an easy roadmap and instructions for teachers and student to follow," said August.

Increasingly involved in recycling computers, the WTA's AmeriCorps staff picks up junk PCs from schools, dismantles them, and then brings the parts to ecologically sensitive recyclers.

The WTA is now Washington state's largest redistributor of surplus technology to schools, relocating about 2,000 computers per year into schools. They are refurbished by students in their A+ Computer Refurbishing programs and placed into schools and/or low-income families. Many of the advanced students serve as school district support technicians or lead evening software training classes for low-income adults. They are gaining technology job experience and confidence while effectively "bridging the Digital Divide" in their communities.

They draw in various computers, however, "About 40 percent of the computers we relocate into schools are Dells," said August. Why? "They hold up very well and are ideally suited for re-use by schools and low-income community members."

While the computers are as rugged as the wilderness with which WTA students interface, it has taken more than a decade for Lou August to begin to see his original vision come to reality. But he has persisted with his original vision in mind.

"Technology skills alone do not produce a good employee, parent or citizen," said August "Yet, technology courses are crowding out courses that might. Thus, a high-intensity values-learning experience must be provided to students. Only the wilderness, mankind's aboriginal teacher, can do this."

LESSONS LEARNED FROM THE TECH TRAIL

Five key points, hard-won knowledge August has followed to map his success, from which other educators might benefit in implementing their new technology models:

1. To teach technology you do not have to master technology. Adults will always be the "bottleneck" when younger students learn faster than they do. Rather, teachers must know how to facilitate existing student knowledge for the benefit of other students, and to show students how to obtain new knowledge on their own. Select technology curricula that allow for multiple rates and levels of learning and can be adaptable to student-led sessions.

2. Teach students in the context of completing real projects. Adults and older students do not like to learn for "learning's sake." They do so in the context of having to complete projects that have real benefits for them or others. Select curricula and staff that support project-based learning.

3. Always create authentic projects. Students can immediately tell the difference between "fake" projects (ones that serve no purpose other than to keep students busy), and authentic projects (ones that really benefit people).

4. Don't be afraid to tackle serious community issues. Students will rise to the occasion. The more compelling, the more they will rise. Teachers must view students as valuable community resources that they can facilitate to do great things. This means leaving the "comfort zone" for teachers, so select the right teacher.

5. Always put the "cart before the horse." Create a set of circumstances that will "force" students and teachers (and the system) to succeed. That takes a large degree of confidence and faith, but is a **required** element for success. For example: Schedule a class of senior citizens to take a student-led training course in Microsoft Office — **before** ever finishing training the student teachers. Win a Web-development contract with a local nonprofit **before** ever teaching your students Web-design skills. When done intelligently, students and teachers **will** succeed because there is no other choice. Thus school administration must stay informed and **must** be very supportive.

"Once students gain the confidence that they **can** learn things, and **can** make commitments based on acquiring future knowledge, **then** they can succeed in the 21st century. These are the risks and rewards that 21st-century businesses are faced with every day," said August.