



Afield  
ORION Working for Nature  
and Community

# Educational Environments

## wilderness u.

studying conservation issues  
in the mountains of Montana

## architecture as Pedagogy

David Orr on what buildings teach

## lessons from the Mud

the saga of an outdoor classroom  
in New Mexico

## An Interview with John Elder

hiking toward a bioregional curriculum

plus: Savanna  
restoration in  
Wisconsin and a  
spirituality of  
resistance.

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## Lessons from the Mud

### NURTURING AN OUTDOOR CLASSROOM IN NEW MEXICO

by Virginia Bodner and Karla Sampson

**Above:** Eager students look on as the rich life of Mud-puddle Marsh goes about its daily business.

**Opposite:** Digging holes for new trees and shrubs is a favorite task among students.

WE LIVE IN AN ANCIENT natural crossroads for animals, plants, and humans, where lush meadows are watered by creeks from the high country. In our part of northern New Mexico, the Sangre de Cristo Mountains reach down from the Rockies and meet the high plains. We find Clovis-era artifacts from old stone quarries along with relics from seasonal hunting camps and from trade between Pueblo and Plains tribes. Coronado passed through around 1540 along what later became the Santa Fe Trail. The town of Nuestra Señora de los Dolores de Las Vegas (Our Lady of Sorrows of the Meadows), established in 1835, became a jumping off point for the trail. The mountain valleys and high plains of this natural meeting ground soon sprouted small farms and ranches along with schools, churches, and community centers.

In recent history, when our two sister elementary schools—Los Niños and Sierra Vista—were built on the grassy edge of town to accommodate a new large housing development, the space between them was

scraped bare during construction, leaving a mucky drainage area behind. Landscaping? Not in the budget. During periods of rain and runoff, kids came in from recess muddy from the shoes up, sometimes clutching frogs and salamanders, grasshoppers and snakes.

That first year on our new grounds was filled with discoveries—most notably, the variety of wildlife we found still living around the schools. We understood anew the expression “It’s raining frogs” when we walked through new grass on a rainy day and baby frogs leapt up like popping corn around the children’s legs. Later, a giant bull snake wrapped itself into a trash can, hissing each time the lid was opened. Waterfowl passed north and south on the west central flyway above us. Summer rains and melting snows flowed naturally into that low area between the schools, creating the mudpuddle where the children flocked.

One suggested “solution” involved dumping truckloads of rocks and broken concrete to keep kids out! But where some saw only a mud problem, others



recognized a precious opportunity. We talked about how this sometimes muddy little basin could provide a safe area for displaced plants and animals while becoming an open-air classroom for our students. Encouraged by colleagues and parents, we hatched a plan to turn the problem area into an outdoor learning center. Instead of a no-creatures land filled with chunks of cement, we envisioned a little pond with grass-covered banks and wildflowers, willows and cottonwoods. The seeds for El Charco de La Cienega, Mudpuddle Marsh, had been sown.

FOUR MONTHS LATER, our school district's maintenance crew brought a backhoe and dug down into the mud as children from both schools flocked around the edges of the safety zone. Building on plans that we developed at a National Audubon Society workshop and using a small grant from Chevron's Special Projects Fund, we bought bentonite clay to spread on the "scoop" as a natural sealer. New Mexico's Native Plant Society sent a representative with seeds and knowledge to share. Classrooms took turns moving rocks to form a small island and mark trails. The maintenance crew trucked in three statuesque stones from a school that wanted them moved and we chose a special place for each. The crew lost its clutch in the process, but not its enthusiasm for the project.

During Earth Week, our special education program set a day for volunteers to plant trees donated by parents, teachers, and the local Soil and Water Conservation District. Other volunteers set railroad-tie benches for an observation outlook and created a class-sized amphitheater with a great boulder at the focus. A Hungarian architect, sponsored by the Artists-in-the-Schools program, guided students in creative birdhouse building. And then one late spring day—a dry time around here—a fire truck showed up with lights flashing and turned its hose into the little pond to the cheers of about 800 kids and teachers. How wet and watery the whole area smelled those first few weeks!

Since that day, water levels have gone up and down. When rains flooded the pond that summer, maintenance put in a fence for the safety of neighborhood children. At first we thought the chain link would defeat the very things we were trying to accomplish. Surprisingly, we found that the new plants grew and flourished, creating a wild, "secret garden" effect. That August and September, a female mallard came every day for her morning swim. We watched swallows gather mud for nests, and when we came back from summer vacation, we saw them feeding the last youngsters along the fence.

At the start of each year, the kindergarten classes are taken out for an introduction to

our own special wild place. First we talk about what refuge means—a place where people, animals, plants, rocks, and even dirt can be protected. Then the children tell what experiences they associate with "nature" and "wild." As we discuss the name and nature of our school wetland and how we take care of it, even the youngest groups generate practical and meaningful guidelines for its use—no running or yelling or throwing ("you'll scare the animals"), watch where you step, no picking or taking, and don't hurt any animals ("it's their home").

WE USE THE OUTDOOR learning center for many purposes—yesterday for a photography workshop, often as a place to grow poems or dreams. One of the surprises of our refuge has been the larger creative harvest—an outgrowth of deep personal relations many of us have discovered there. Sometimes we simply buzz the office: "We're going to the wetlands."

"Okay, have a good time."

We head out past the slides and swings in a snake line, then clump together on the hill overlooking the pond, beginning with an exercise we call ASO, or All Senses Open: reporting on what we see-hear-smell-feel (many kinds of feelings, including touch, emotion, and what might be called "aesthetic intuition"). At first it seems hard to be fully quiet, but then something suddenly clicks, and the silence becomes clear—all the sensations come flooding in. In this open mood, we unlock the gate and pour through the grasses and along the trails, edging close to mud or water, disappearing into the bushy maze of willows. It's wild!—especially for kindergartners, who can find themselves swallowed by the late summer burst of growth, their eyes peering between the grasses. Even the teachers marvel at how much they themselves discover and what a strong sense of nature and release they experience.

We hope that our students' sense of stewardship will grow as they do. All who work to cultivate such stewardship must discover a dynamic interplay involving modeling, encouragement, transmission of knowledge, and yes, even rules. The children bring with them a natural curiosity and urge to explore. We want to nourish these impulses, while teaching skills for expanding knowledge and deepening understanding. All this has to be rooted in a sense of caring, respect, and fairness that can generate effective guidelines for behavior.

On a practical level, we are still developing a longer-term stewardship plan. We are thinking of starting a Friends of the Wetlands group, with school, parent, and community members, to foster continuity and provide ongoing care. Ultimately, the sense of stew-





ardship must grow in each person, in ways that cross boundaries of age, curriculum, and individual assignment. In fact, many values gained from our wetland come directly from this ability to offer lessons that cross boundaries, integrating different modes and segments of learning through connection to a real, living place.

Once, at a time of low water, some older kids climbed the fence to break trees and bird-houses, spraying graffiti on the concrete spillway. Our students were very upset and organized meetings with classmates, the school board, and top city officials, including the mayor, involving us in grassroots democratic process. As supportive as the officials were, no one could guarantee protection for our wetland, and we all learned something about the joys and wounds of stewardship. This aspect of our project was featured in the *Rights and Responsibilities* volume of the "My America: Building a Democracy" video education series (Newcastle Communications, Inc., Chappaqua, NY, 1994), making all of us more aware of the ripple effect our



**Top:** Karla Sampson and Celina Silva stop to rest in the high grass; **Below:** Estevan Meyer looks for signs of life in a dry El Charco.

tation center, local businesses, and others have provided workshops, assistance, and curriculum ideas. A local surveyor taught his craft. A staff member from the state's Office of Environment demonstrated water testing. Our colleagues and administrators, maintenance crew, the district's Artist-in-the-Schools program, and parents have all been there when needed. Community volunteers and individuals, city government, even our own families have contributed resources, special services, and, especially, gifts of time. Each contribution brings a new dimension to El Charco.

THE POND IS more often dry now, and we are wondering about a new digging, or even a well—though dryness holds lessons, too. The trails always need fixing, railroad ties need to

## Many values gained from our wetland come directly from learning through connection to a real, living place.

actions can have. Our wetland has not been bothered since, but we are watching—learning comes in so many ways.

One spring a group of kids with learning disabilities designed and set up a wetlands "treasure hunt" for their fourth and fifth grade classmates. The idea came after our explorations led to a number of discoveries they felt were real treasures: tiny snail shells where there was no water, the wing of a bird, a spider's egg sac, crystals in a rock. We studied, drew, questioned, and wrote about each, imagined stories about how the wing might have come to be there and what was going to happen when the spider's eggs hatched. Then the children wrote a checklist with location clues and explicit directions to leave each item where it had been found so that the treasures would be there for the next groups to discover, and anyone else who came later. The prize was that everybody had the fun and excitement of discovering and learning about the treasures of the natural world.

We've been delighted with support from many directions; the Randall Davey Audubon Center in Santa Fe, the Forest Service, New Mexico Highlands University, the New Mexico Museum of Natural History, a raptor rehabili-

be reset, and we've thought for years about a boardwalk or surfaced path for better handicapped access.

There is a fence around Mudpuddle Marsh to protect toddlers, but once inside there are no real boundaries: nature study becomes poetry, becomes art, becomes music, becomes photography, becomes bird-house building, becomes an exercise in democracy, a place to develop healthy relations to the "more-than-human" community. We learn from each other all the more, old from young as much as vice versa, because we are not just "teacher" and "student" here, but equal discoverers.

Just the other day, a child stretched out her open hand to show an empty snail shell. "Where does the snail go when it leaves its shell?" she asked, reminding us how much we all have to learn. It seems important not to pretend to know more than we do, to model the personal relation with what we call "land" honestly, not from ulterior motive. Land reminds us of our humanness, and promotes a sense of kinship. 🌱



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