

THE NEXT CROP



LEFT

At the green schoolyard at Sherman School in San Francisco, designed by Miller Company Landscape Architects, children examine vegetables in the edible garden.

IMAGE CREDIT

Courtesy Miller Company Landscape Architects

LANDSCAPE ARCHITECTS HELP DIRECT EFFORTS TO MAKE EDIBLE, SUSTAINABLE (AND FUN) SCHOOLYARDS IN SAN FRANCISCO.

BY JOANNE FURIO

In the Sherman School's green schoolyard, a group of about 22 kindergarteners is learning about the five senses with Linda Myers, the garden educator. The children begin by feeling the hard boulders they are sitting on. The boulders surround a man-made pond, where they hear the trickling of water down a waterfall. In the fragrant garden, they sniff dill. In the edible garden, they taste celery and see a purple cabbage, which, with its spreading leaves, one student compares to a snowflake.

"The purple cabbage looks like a snowflake," Myers repeats, so all the kids could hear. In addition to teaching science, environmental studies, and nutrition lessons in the garden, Myers has had children write poetry there, so the metaphor was especially appreciated.

In the green schoolyard, Myers observes that lessons often start out on one topic but end up incorporating so much more. "It always goes beyond what you learn about urban schoolyards," she explains. "It is the personal, daily accessibility to nature that becomes the magical, educational equalizer."

Sherman is one of 56 schools in the San Francisco Unified School District that have transformed what were once parking lots or asphalt playgrounds into

dirt-filled recreation and educational areas. In a city where grassroots activism is practically embedded in its DNA, the creation of such spaces requires that landscape architects work closely with community groups, parents, teachers, and administrators in the planning and design process.

"These projects really are a collaborative effort," says Sharon Danks, an environmental planner who, with Lisa Howard, ASLA, is a principal in Bay Tree Design, a Berkeley-based landscape architecture firm that has done the master planning for 29 schools so far, almost half of the roughly 60 schools slated for revamping. "Each group or community or individual involved plays an important role in steps along the way."

SITE PLAN

1 EDIBLE GARDEN

Among the crops children get to eat are peas, kale, cabbage, and celery.

2 OUTDOOR CLASSROOM

A decomposed granite path leads to a salvaged wooden circular bench.

3 FOCAL POINT

Kids often gather around this central space.

4 WATER FEATURE

The most popular spot in the garden is a waterfall that cascades into a pool.

5 GARDEN SHED

In addition to gardening tools, classroom projects and experiments are stored here.

IMAGE CREDIT

Courtesy Miller Company Landscape Architects



LEFT

Seating benches for students at the entry plaza at San Francisco School, designed by Miller Company Landscape Architects.

IMAGE CREDIT

Jeffrey Miller

Danks herself has been researching and working on green schoolyards for the past 12 years and has been involved in San Francisco's program for six years. She is also the author of the new book *Asphalt to Ecosystems: Design Ideas for Schoolyard Transformation* (New Village Press, see Books, p. 130).

Elsewhere in the world, in places like Canada, Europe, and Japan, national organizations make school grounds greener. In the United States, most transformations take place at the local and regional level. While major efforts are under way in cities like Boston, Chicago, Los Angeles, and Washington, D.C., the San Francisco Bay Area has become an epicenter for the movement, thanks in part to its Mediterranean cli-

mate, which allows children regular access to the outdoors and fruits and vegetables to grow year-round.

Another influence is the region's fervent "foodie" culture, which stresses locally grown produce and home gardening. The renowned Chez Panisse chef Alice Waters's creation of the Edible Schoolyard at a Berkeley middle school in 1995 spearheaded the school garden movement, which is one component of green schoolyards.

"We're also looking at sustainability, environmental education, ecoliteracy, and using green building design and opportunities for students to play in varied ways," says Arden Bucklin-Sporer, the executive director of the San Francisco

Green Schoolyard Alliance (SFGSA), a nonprofit that works closely with the school district and provides resources, training, and advocacy to school communities. She is also the coauthor of *How to Grow a School Garden* (Timber Press), a handbook for parents and teachers published last year.

Like the Sherman schoolyard, such spaces often include passive areas for sitting quietly, active areas where children are allowed to dig, and outdoor classrooms.

Green schoolyards are the antidote to what has become the norm at most urban schools: yards that have been paved over or turned into lawns, both of which are cheap and easy to maintain.

In San Francisco, SFGSA saw an opportunity when monies were set aside to make the schools compliant with the Americans with Disabilities Act, requiring the redesign of school grounds to create ramps. As a result, the school district set aside a total of \$7 million for green schoolyards from voter-approved bonds in 2003 and 2006. (Another bond is expected to cover remaining schools this year.)

The process of "greening" begins when parents, teachers, school administrators, the SFGSA, and Lori Shelton, the project manager who oversees the green schoolyard program for the San Francisco school district, convene to hammer out a master plan. Creating the plan typically takes a year and numerous meetings.



GREEN SCHOOLYARDS ARE THE ANTIDOTE TO YARDS THAT HAVE BEEN PAVED OVER OR TURNED INTO LAWNS.

LEFT
At Sherman School, teachers often conduct classes at the water feature, with children using the river-washed boulders as seats.

RIGHT
At Lafayette School, raised planters contain school projects, typically annual plants and edibles.

IMAGE CREDITS
Courtesy Miller Company Landscape Architects

“We educate them on what green schoolyards are and the choices they have before them,” says Danks. Bay Tree’s presentation includes slides of what other schools have done around the world. The planners hope to inspire teachers on what could be taught outside, show how to incorporate ecological design into the mix and broaden play options, while making the yard a more comfortable space that’s also beautiful.

For her part, Shelton tries to “help the school district define what it is they want to do and broaden their horizons,” says Shelton.

And such horizons, at this stage, are intended to be broad. The goal of the process is to create a 10-year master plan report that includes text and site plans to describe which uses should take place where and the community’s

vision for the schoolyard defined in broad brush strokes.

In the master plan for Sunset Elementary School, for example, more than 50 members of the community showed up to request a variety of play experiences. That was accomplished through a proposed stormwater bioswale that would run through the site, creating different zones and opportunities for activities.

“Each school chooses what they want to focus on,” says Bucklin-Sporer, depending on their needs.

At Rosa Parks Elementary School, where 65 percent of children receive a federally sponsored reduced-price lunch, the emphasis is on an edible garden and outdoor kitchen where the school’s nutritionist often whips up meals with kids. The school also donates some of its

crops—including kale, swiss chard, and lettuces—to its own food bank, which distributes the crops to members of the school community.

From the broad vision of the master plan, the community selects the highest-priority area to start with, which is then sent out to bid.

“We have master plans that the bond funds can’t fund, but that’s intentional,” says Shelton. “Our goal is to help them get the infrastructure in—that is, the ramps, stairs, and walkways that make up the bones of the project. Items like raised wooden beds, plantings, and extras like water features can come later.”

The landscape architect who wins the bid takes that information and comes up with his or her own design to make it work and submits construction documents to the appropriate agencies.

Jeffrey Miller, ASLA, has designed and implemented 19 green schoolyards in San Francisco, including five that will be completed this summer, as well as the Sherman and Rosa Parks and Sunset schools. Miller credits his popularity to his firm’s 30-year immersion in community projects, understanding of construction techniques (Miller Company Landscape Architecture is a design/build firm), and many contacts in the industry that enable him to bring in resources.

FIFTY-SIX SCHOOLS IN SAN FRANCISCO HAVE TRANSFORMED WHAT WERE ONCE PARKING LOTS OR ASPHALT PLAYGROUNDS INTO DIRT-FILLED RECREATION AND EDUCATIONAL AREAS.



ABOVE
The edible garden at La Conte Elementary School in Berkeley was also designed by Miller Company Landscape Architects, which has done many green schoolyards in the region.

IMAGE CREDIT
Kyla Burson

“We tend to be involved with these schools well beyond our contract,” he says. “I am interested in seeing these schools thrive.”

From a budget of about \$150,000, which includes design and administrative fees, Miller tries to save money for schools by engaging parents to plant and install minor projects rather than hiring a contractor. He tries to leave the schools around \$20,000 for future projects.

“An active parents’ group is key,” he says. “You can build the garden, but you have to have a good facilitator.”

At the Sherman School, Miller had a contractor install stone stairways and the irrigation infrastructure. Meanwhile, he donated some of his own time and materials, and had local suppliers donate boulders and equipment, including the use of a crane. Parents helped build the pond and

install decomposed granite areas and plantings. Miller estimates that such preliminary work takes about four months.

From the start, flexibility was built into the process. “We see a master plan as a living document that tries to capture the spirit of the project,” says Danks. “The master plan gets interpreted as schoolyards get built.”

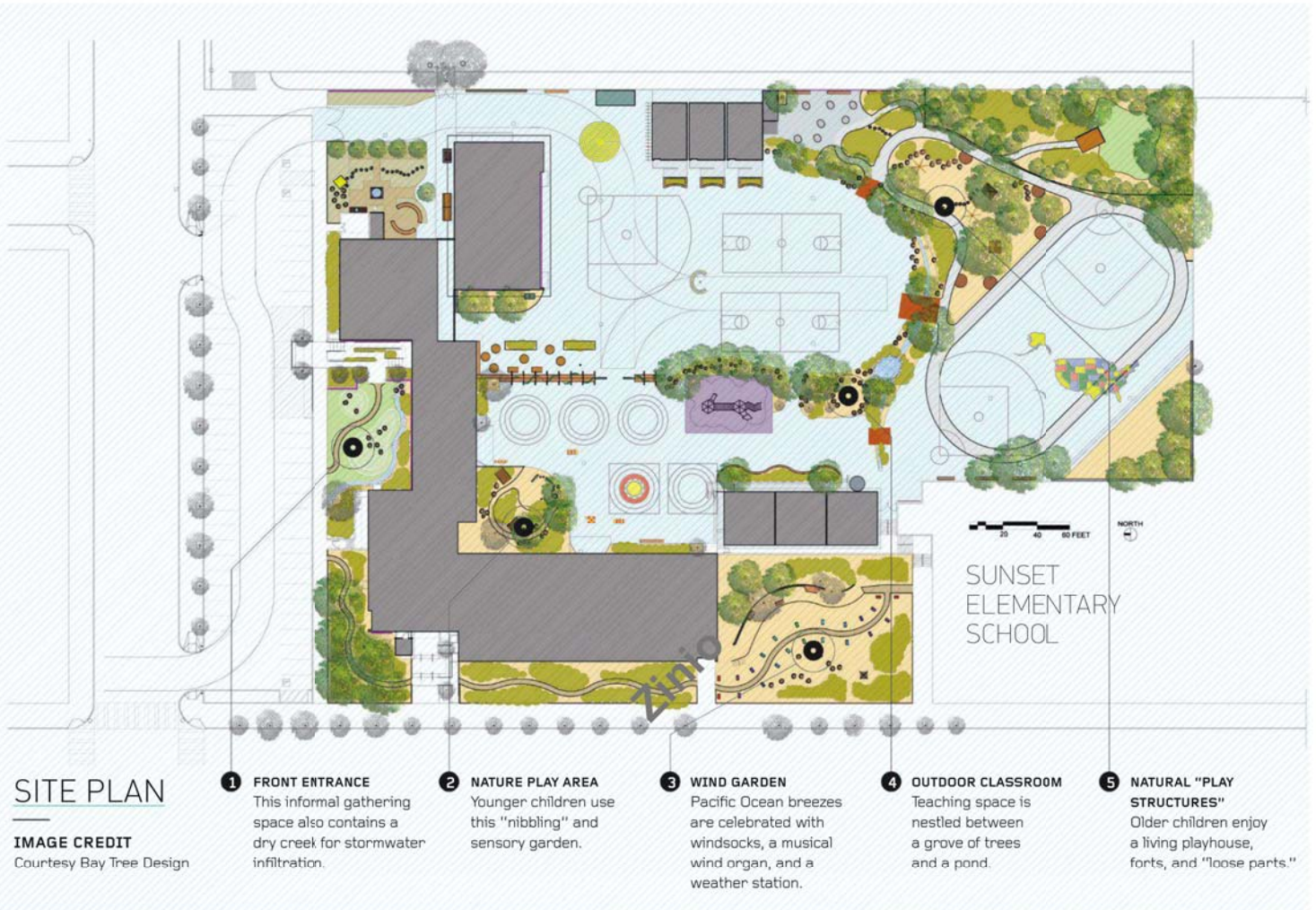
Landscape architects can deviate somewhat from the master plan as needs change or are clarified. At the Sherman School, for example, Miller met with the green committee and delivered the pond the members wanted, despite worries voiced by some parents about the safety of young children around a water feature. The pond is now the most popular spot in the yard.

Gardens are the most visible part of the green schoolyard—thanks to a boost

from First Lady Michelle Obama, who has made the issue one of her priorities—but green schoolyards also provide a respite for kids who don’t necessarily want to play ball games every day.

“This is now a quiet play area,” says Amy Mack, the garden coordinator at West Portal Elementary School in San Francisco, in the bird and butterfly garden Miller created by making strategic cutouts in the concrete. “We had to push garden culture. Everybody was used to running everywhere. Now I can’t get them to stop picking the flowers.”

A green schoolyard can be a great equalizer. Myers says asphalt “is the hard place socially. You have to have ‘the ball.’” In contrast, the green play areas “take the competition out of it.” She points out that there is a regular group of girls who have their lunch under one of the bamboo stands that flank an entrance.



SITE PLAN

IMAGE CREDIT
Courtesy Bay Tree Design

A green schoolyard "allows lots of different kinds of learners to come in and be successful," says Mack of West Portal, where special education classes also learn outdoors.

Green schoolyards have become so desirable, Miller observes, that they often act as an amenity that attracts prospective parents. When Andrea Lewis was looking for a school for her kindergartener, she ultimately decided on Sherman because of its curriculum and because "you can sit outside and hear the waterfall."

To keep green schoolyards going, each one is typically run by a committee of volunteers and can include a paid coordinator or "director of sustainability"

and a nutritionist. Given that the San Francisco school district does maintain areas that have been improved with the bond money, that responsibility rests with parent and community members. Community workdays are typically held twice a year, attracting parents, teachers, and the community.

Danks says such involvement creates a paradigm shift. Instead of school districts being entirely responsible for the space, it is shared. "In so doing, that teaches the idea of stewardship to children as they participate in caring for their schoolyard," she says.

The flexible process was also designed to accommodate future decisions. Gardens are intended to change over

time as students, parents, and faculty move through the school, leaving their own imprint.

Rosa Parks Elementary would like to have a chicken coop. West Portal would like to turn a donation of large stones into amphitheater seating.

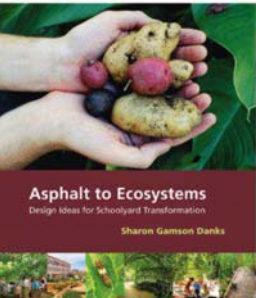
"We don't fully design them," says Miller. "In the long run, you need to leave some of the garden open to continue to have people engage in the garden. These schoolyards are better when people take off and do it themselves." ●

JOANNE FURIO IS A BAY AREA WRITER WHO SPECIALIZES IN DESIGN, GARDENING, AND ARCHITECTURE. HER WORK HAS APPEARED IN THE *NEW YORK TIMES*, *DWELL*, AND *SAN FRANCISCO MAGAZINE*, WHERE SHE'S A CONTRIBUTING WRITER.

ASPHALT TO ECOSYSTEMS: DESIGN IDEAS FOR SCHOOLYARD TRANSFORMATION

**BY SHARON GAMSON DANKS; OAKLAND, CALIFORNIA:
NEW VILLAGE PRESS, 2010; 288 PAGES, \$39.95.**

REVIEWED BY DEBORAH DALTON



Sharon Gamson Danks's *Asphalt to Ecosystems* is a book that is both worthy and worthwhile. It is the most recent addition to the growing literature on the ecological schoolyard movement, which also seems to be alive and well. Given the current education climate, this movement is more important than ever as an alternative and antidote to the ongoing industrialization and regimentation of public education. I fear, though, for the future growth of this movement in this era of rapacious budget cuts, retrenchment, and small-mindedness. As I was reading this book I realized I wanted to buy boxes of it and send copies off to all officials involved in education at the national and state level—it is that good.

As the title suggests, this is more about ideas for transforming schools and schoolyards (and thus education) than it is a how-to book, although Danks sprinkles some of that throughout as well, along with providing a rich array of resources, notes for each section, and references in appendices. The original impetus for this work was the author's master's thesis on ecological schoolyards, which has been enriched, enlarged, and validated by 10 years of professional practice and significant travel both in the United States and abroad. As a result, it is heavily supported with excellent photographs and graphics on every page.

The book is very reader friendly, written in a chatty, first-person voice. Danks is extraordinarily thorough, covering most aspects of ecological form and function at the schoolyard scale and the attendant opportunities for learning and play. She also stresses the importance of community involvement at all levels.

The first section introduces ecological schoolyards and explains their importance, describes the community involvement necessary, and provides overall design guidelines. "Ecological Teaching Tools in the Schoolyard" addresses wildlife sanctuaries, water and energy systems, agricultural options, the use of ecologically sensitive materials, and how to weave teaching, curriculum design, and ecological schoolyard design together. "Creating a Diversified Play

Environment in an Ecological Schoolyard" describes active and creative play and the importance of both and finishes up with a discussion of outdoor art and music play. These last two sections are the real core of the book.

Danks also reviews seating, microclimates, and protection from the weather, as well as key design considerations, finishing up with the ways that art can help create a local sense of place. The last section, "Putting Ideas into Action," is the most cursory. It

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does emphasize the necessity of sustaining the schoolyard and points out that these are not low-maintenance landscapes. She touches on the importance of PTA and community participation, where professional assistance would be important, and the critical need for ongoing communication and networking. The author finishes with an articulate brief about how ecological schoolyards can help advance ecological literacy and teach future generations how to live more lightly on the land and with the earth while building a stronger, more informed local community.

I heartily recommend this book for landscape architecture, architecture, and planning students, faculty, and professionals as well as for those in the education community and the public. It is unusual to find a book that will appeal to such a wide readership. ●

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