



IT TAKES A VILLAGE

A SCHOOL COMMUNITY IN CALIFORNIA COLLABORATES TO CREATE A VILLAGE GREEN SCHOOLYARD AT ROSA PARKS ELEMENTARY.

By Sharon Gamson Danks

Schools across the United States and around the world are using their grounds to enhance hands-on teaching and learning, enrich outdoor play, improve the ecology of their neighborhoods and develop and celebrate their own sense of place. The green schoolyard movement is flourishing in many forms and can be seen in school gardens and wildlife habitats, rainwater systems, renewable energy projects, green building efforts, material reuse programs, nature playgrounds, outdoor classrooms, art installations and many other creative endeavors on school property. While individual projects on each of these themes are now fairly common at both public and private schools in many parts of the country, it is still rare to see a comprehensive approach being taken on a single K-12 campus.

Rosa Parks Elementary School in Berkeley, California, is ahead of the curve with a multi-faceted green

Originally published by the *Children's Outdoor Environment Newsletter*, Summer 2012, American Society of Landscape Architects, <http://www.asla.org/ppn/Article.aspx?id=35968> Photos and text © Sharon Gamson Danks, 2012-2015. All photos by Sharon Gamson Danks unless noted. Phrase in article title is derived from an African proverb.

schoolyard that contains hands-on teaching tools, a vibrant play environment and examples of green design and local ecology. The project to retrofit an existing schoolyard is engaging students, families, teachers and school staff in its ongoing design, implementation and stewardship.

The green schoolyard project began in 2006 with a participatory design process led by Bay Tree Design. The resulting concept plan expressed this public school community's vision for the future of their school grounds. Designed to be implemented in manageable phases as funds are raised, the plan is being realized project by project, with work accomplished each semester by the talented school community. Since the green schoolyard has a very modest PTA-funded budget, all of the labor is done by volunteers from the school community who have a broad range of professional skills that they generously contribute. The





The photograph above (left) shows one of the “nibbling gardens” before the project began. The photograph above (right) shows the same “nibbling garden” about a year after it was installed by parents, teachers and kids. Children’s artwork is displayed on the perimeter of the picket fence, which was made using locally harvested urban timber.

school holds work parties each semester to build or plant new elements and to maintain the growing number of features already onsite. Parents and teachers also collaborate to write grant proposals to fund individual projects each year.

Over the last six years, the green schoolyard has become the broad, unifying “umbrella” for many school-wide efforts ranging from renewable energy education to hands-on art installations and sustainable means of transportation to school. These and other projects spring from the community’s deep and diverse talent pool, and are shepherded by the individuals and groups that dream them up. The following are some themes and projects that have been implemented onsite over the years.

EDIBLE GARDENS

The school grounds include a wonderful teaching garden used for academic instruction by the garden educator and classroom teachers, and smaller “nibbling gardens” intended to be used by children for their own, self-guided exploration and unstructured play time at recess. Fruit trees (fig, lemon, apple, plum) and berry bushes are also used as edible landscape features around the playground.

The “nibbling gardens,” designed to allow children free access to edible plants, sit at the edge of the playground where they are easily available at recess. Plantings include herbs, vegetables and fruits children can pick as they like and incorporate into their imaginative games at recess.

WATER SYSTEMS

A small amount of pavement (300 square feet) was removed to create a nature play zone and increase rainwater infiltration. The school also installed a stormwater cistern to supplement landscape irrigation and teach students about water conservation.

ENERGY SYSTEMS

Rosa Parks School is currently home to two renewable energy systems and a third is planned for later this year. The smallest is a solar-powered pond pump system that the students can operate. Students rotate the small solar panel to watch the water pump turn on and off—creating a very effective and inexpensive renewable energy demonstration that children intuitively understand and can interact with during class time and at recess. Nearby, a 1 kW grid-tied solar array (group of panels) generates electricity that offsets the energy used by one classroom. The educational value of this larger, prominently displayed system is further enhanced by a parent-built digital interpretive display located in the science room that includes real-time energy read outs and additional data gathered by students. A substantial 20 kW grid-tied photovoltaic system will be installed on the school’s roof later this year. This larger system should generate approximately 25% of the school’s energy.

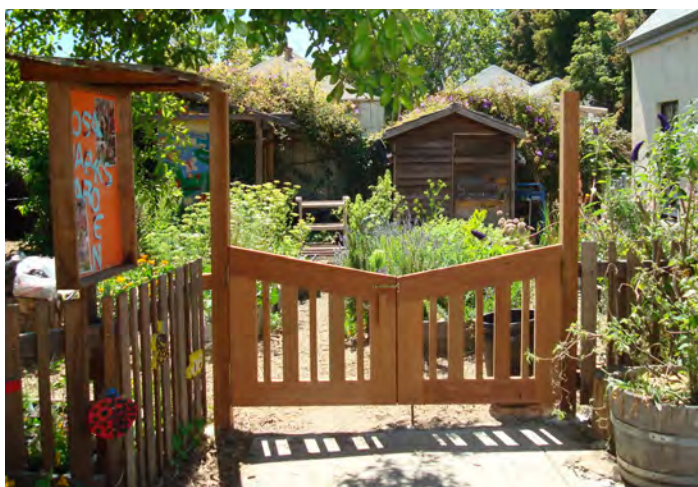


A class gathers around the pond to observe how the energy produced by the small solar panel powers the fountain that bubbles out of the rock in the middle of the water.



WASTE AS A RESOURCE

The green schoolyard at Rosa Parks was implemented using green building principles and practices that emphasize recycling, composting and recycled and reclaimed materials. In addition to the citywide composting and recycling programs used by the school district, the school garden includes compost bins and composting curricula. Garden beds are maintained organically, using locally produced compost. The wood used to create decorative picket fences around the schoolyard came from urban timber that was harvested and milled locally. The solar panel installed to power the pond pump system also had a prior life on another site. The beautiful garden gate that was created by a parent, is made of reclaimed lumber.



This graceful gate at the edge of Rosa Parks School's teaching garden was built using reclaimed lumber by parent Wick Pancoast of Pancoast Construction.

CURRICULUM TIES

Teachers of several subjects bring their classes outside to enjoy the gardens and to use the setting as an outdoor teaching environment. To this end, the schoolyard now includes a variety of outdoor classroom spaces—large and small—that can accommodate an entire class or smaller clusters of students while they collaborate on their assignments. Curriculum elements, designed with input from the teachers, are also installed throughout the site. Boulders from around California and the western USA are arranged as a geology trail for science studies. A “human sundial” (right) is painted on the asphalt so students may observe the passage of time. A wonderful annual science fair, and many other school-wide celebrations, take place outside.

IMAGINATIVE PLAY

For play, the schoolyard provides the usual places to bounce balls, jump rope, play sports games and climb play structures. But it also includes a “nature play” space

with inviting nooks that encourage students to gather for conversation and creative, open-ended play; loose play parts (mulch, twigs, plant pods, flowers, edible plants) for children to use in the games they dream up themselves; a pond for aquatic exploration; and opportunities to create art at recess using chalk and other simple materials.

BEAUTY, COMFORT AND SUPPORT

It is essential to convey to children that they are valued members of the community and that the quality of their environment is important. The school community has worked to nurture an inviting and supportive environment at Rosa Parks by fostering comfortable microclimates, providing a variety of seating options, installing artwork created by the children and planting flowers and other attractive vegetation that they can explore. These elements of the landscape mesh well with the “village-like” atmosphere created by the unique design of the school’s welcoming architecture and overall philosophical approach to “building community” through school-wide events.

SUSTAINABLE TRANSPORTATION TO SCHOOL

Rosa Parks holds “walk and roll to school” days to encourage students to get to school under their own power by walking and by riding bikes, scooters and skateboards. Racks are included onsite to secure the rolling means of transportation during the school day.



A painted “human sundial” on the Rosa Parks playground helps students tell time using their own shadow cast by standing on a date marker. Colors reflect changes in daylight savings time.



COMMUNITY STEWARDSHIP NOW AND IN THE FUTURE

The Rosa Parks Green Schoolyard Committee is responsible for keeping the green schoolyard features looking their best and for adding new elements to the yard each semester. Teachers, school staff members, the principal, parents, students and community members have all contributed to making this project what it is today and will be the ones to carry it forward in the future. This collaborative, ongoing design and building process is dynamic, exciting, rewarding and educational, for both the children who use this schoolyard every day and the adults who help to shape their environment.

Every school changes over time as its students grow up and graduate, families move on and school staff members' interests and careers shift. This is a natural part of a healthy school community and is something that we at Bay Tree Design incorporate into our school yard designs. Green schoolyards are living entities—not static environments—and should be allowed to change as time passes to respond to their community's needs. Green schoolyard master plans should be revisited and updated from time to time by the school community and/or the designers. This way, a project's ongoing development continues to reflect the school's current population and goals and remains relevant to the life of the school.

Since the project at Rosa Parks is now in its sixth year, and all of the kindergarteners who began the project have now graduated, we will be helping the school community to revisit the original master plan this year, update it and plan next steps. Our firm has been the catalyst for this



Nature play zones have been added to the perimeter of the playground to encourage children's imaginative play with loose parts such as flowers, twigs and mulch.

project from its inception and has shaped the overall design of many of the projects implemented to date. However, it “takes a village” to be stewards of a green schoolyard. The success of this project is the result of the collaboration, dedication and hard work of the whole school community and is a tribute to the power of working together.

More information about the green schoolyard at Rosa Parks School can be found in the video, “Turning Nature Into Classrooms,” produced by Erika Brekke for OnEarth.org and in *Asphalt to Ecosystems: Design Ideas for Schoolyard Transformation* by Sharon Danks (New Village Press, November 2010).

Environmental planner Sharon Gamson Danks is CEO of Green Schoolyards America and principal of Bay Tree Design in Berkeley, California. She is author of Asphalt to Ecosystems: Design Ideas for Schoolyard Transformation and co-founder of the International School Grounds Alliance. Her work transforms school grounds into vibrant public spaces that reflect and enhance local ecology, nurture children as they learn and play, and engage the community.

For more information, please visit Green Schoolyards America at www.greenschoolyardsamerica.org.



Students worked with Rosa Parks School's art teacher, Kathleen Gadway, and a local artist to design and install a tile mosaic mural that reflects the local ecosystem and soil profile. The mural includes ceramic pieces made by the students and reuses some pottery shards gathered from broken household objects.