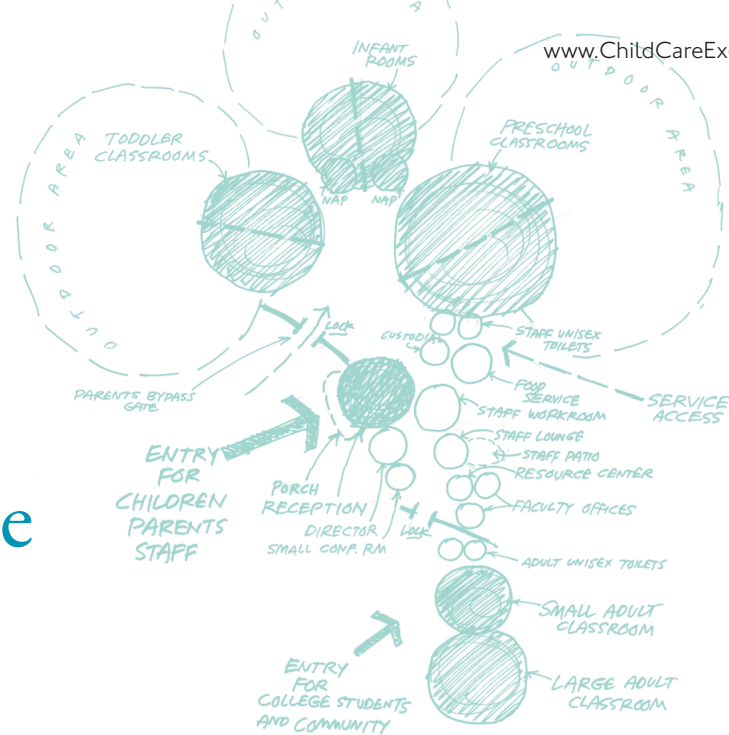


# Creating a Children's Village

by Paul Roberts



*Children are miracles.*

*Believing that every child is a miracle can transform the way we design for children's care.*

*When we invite a miracle into our lives we prepare ourselves and the environment around us.*

*We may set out flowers or special offerings. We may cleanse ourselves, the space, or our thoughts of everything but the love inside us.*

*We make it our job to create, with reverence and gratitude, a space that is worthy of a miracle!*

*Action follows thought.*

*We can choose to change.*

*We can choose to design spaces for miracles, not minimums.*

— Anita Rui Olds

## A Powerful Vision

Five years ago I embarked on an odyssey that would fundamentally change my life as an architect. My partner, Dave Deppen, and I were selected through a very competitive process to



Paul Roberts, AIA, LEED AP, is President of PR&P Architects: Childplay in Vallejo, California, which specializes in designing spaces for children. Paul frequently speaks around the world on topics concerning architecture, outdoor playscapes, and sustainability. He is also one of the founders of the new Global Collaborative OnDesign for Children, a working group of the World Forum. For more information, visit his website: [www.childplay.info](http://www.childplay.info).

design a new Child Development and Family Studies Center in the Sierra Foothills, near Yosemite National Park for Columbia College.

The Columbia College campus is a stunning place in a very rural community, about two hours from San Francisco. The main part of the campus was built 30 years ago and, until recently, had seen relatively few changes. Most of the buildings are made of wood, stone, and concrete. At the heart of the campus is a small lake. The campus has dense areas of trees, but very little groundcover.

Our clients, a team of three amazing early childhood educators (Kathy Sullivan, Adrienne Seegers, and Tiffeny Flies) and a gifted campus administrator, Connie Mical, had collectively nurtured and refined their vision for more than 10 years to create a child-centered place of learning for infants, toddlers, and preschoolers. In my 30 years of practice as an architect, I had never encountered such a complete and thoughtful vision of a client's needs as I did with them. Their vision came in large part from the length of time they had to let the project ferment in their minds and their great passion for working with children. They were inspiring to work with! The team developed the

following key phrases to guide our work: "Homelike — feel at home"; "Calm environments"; "A building that teaches"; and "Storage, storage, storage."

## Being at the Table

It's important for key people to be at the table when big decisions are made. This is just as true if you are working at a large college, or providing care in a home environment. On the Columbia College Project we benefited greatly from one of our key stakeholders, Kathy Sullivan being on the Master Plan Committee. In our case, the Campus Master Plan was proceeding simultaneously, and while a site had been designated for the center, the Campus Plan had not yet been finalized. This proved to be of significant benefit to the team, since the designated site was a gravel parking lot at the edge of the campus. While there were trees surrounding the site there were none on the site. To their credit, the District gave us a chance to search elsewhere on campus for a new site. What we found was a hilly site with more than 600 trees on it. The site had been rejected previously since it was too steep for a large academic building or Child Development Center. From one end to the other, the change in grade level is almost 70 feet.

## Creating the Village

Our clients were quite clear that their goal was to create a comfortable space from the children's point of view and scale, not the adults'. Between the site characteristics and our client's goals it became clear that we needed to break one large building into five pieces, each of which was between 2,500 and 3,500 square feet, about the size of a large house. Thus, the idea of creating a Children's Village emerged. The benefits of this strategy were immediately apparent. Although five buildings have more exterior wall area than a single building (and thus more cost), we were able to introduce windows into every occupied room in the center as a result; each of the six children's classrooms has windows on three sides. With thoughtfully designed roof overhangs, every space is filled with natural daylight coming from multiple sides. To enhance the natural daylight further, each classroom building also has a large glass clerestory window over a common teacher's workspace and multiple Solatubes.™ On most days there is no need to turn on lights in any of the five buildings. Additional benefits of this strategy included being able to develop a classroom design that allows for direct access to the yards from both the classroom and the children's restroom.

## The Value of a Tree

Perhaps the biggest benefit, in our minds, was preserving the wonderful oaks, pines, and manzanita that covered much of the building site. Our careful design meant that only four of more than 600 trees had to be cut down. In addition to the shade these trees provide, the trees are also wonderful outdoor features for children's learning, discovery, and joy.

To save our trees we created an extremely detailed tree and plant protection specification and drew lots of details to

illustrate the procedures. Not only were the tree trunks protected, but so were the areas under the tree canopy where the roots typically extend out. For this reason, we employed a Landscape Ecologist. Where utility trenches and foundations crossed under tree canopies, the contractor was required to protect the roots. This entailed digging by hand and vacuuming the dirt away. While this added a small expense to the project, it saved numerous heritage trees from being cut down.

So what is the value of a tree? The cost of saving a tree is minimal, but the cost of replacing a huge oak is priceless. Even an accountant would value it at least in the tens of thousands of dollars which would be the cost of a large tent canopy and five replacement canopies over the life of the tree.

## Creating a Road Map

When we start a project, creating a road map is vitally important. What we created for Columbia went far beyond a normal building program to include 96 pages of diagrams, key phrases, site characteristics, and room needs. The plan didn't just describe the requirements, but also explained how the spaces should feel and listed the activities that could happen in them. From this work I learned that a well-designed facility for children is far more complex than a university science lab or a 12,000 seat arena!

## Indoor Learning Spaces

Creating separate buildings for each age group allowed the indoor classrooms to escape the single large rectangular box commonly found in centers. Responding to both the landscape outside and the need for flexible spaces, we created a variety of spaces and alcoves to support the children's learning and development.

The design of the buildings started with the idea of a two-classroom pod with separate children's restrooms and a shared teacher restroom, work area, and kitchen space. Materials were chosen to be both durable and easy to clean. A neutral color palette for the project allows the children's art and constructions to take center stage. The campus coordinated with a local artist community to have 30 quilts made especially for the project. With many windows in each room, the children often feel like they are playing in a tree house. Windows are located near the floor so even infants can look directly outside. The corner of every wall is rounded so there are no sharp corners. The same is true of all countertops and plumbing fixtures. Additionally, the budget allowed for custom casework, which was carefully matched to the furniture selected early on by the campus. And each space includes lots of storage.

## Sustainability and Children

The feeling of being part of nature permeates the project: from how the buildings are sited to the use of natural materials and to the window locations

PHOTOGRAPH BY PHIL SCHERMEISTER





PHOTOGRAPH BY PHIL SCHERMEISTER

so that nature comes into the spaces. One of the priorities for the project was to end up with a truly healthy and sustainable building for the children and staff. (Children are much more sensitive to chemicals in our environment than adults, and we need to design all children's spaces accordingly.) We spent more than 200 hours researching products. Key items include:

- Energy savings of more than 50% from already strict California Energy Codes
- No VOC paints
- Linoleum flooring with radiant floor heat
- Use of real wood instead of plastic and careful coordination of all wood finishes
- Hyperinsulated attic with an R-50 rating
- A water filtration system
- Operable windows throughout for fresh air

The project is registered as LEED Gold level, a national benchmark for rating buildings sustainability, and we are finalizing all the documentation to achieve that certification. Over the next 50 years, we expect the energy savings from this design at today's rates to be at least \$600,000. With future inflation and scarcity of resources that number will likely be far higher.

### The Outdoor Learning Center

At the beginning of the project, I went on a day-long tour of several inspiring children's facilities with the children's center staff. This was important to do together to create a shared vocabulary for the project. The center that inspired us most was the

Harold E. Jones Child Study Center at University of California, Berkeley, which was completed in 1960. Although wonderful throughout, the part of the facility that struck us most, was an outdoor space covered with a translucent fiberglass panel roof that was connected to the classrooms. This feature led us to examine and then design our own Outdoor Learning Center (OLC) that bridged the indoor/outdoor space and where children could be outside on rainy or very hot sunny days while still under cover. The OLC was built durably to stand up to heavy winter snow and earthquakes, yet it is quite simple in its design, constructed with inexpensive, durable materials. With extremes in temperature from well below freezing in the winter to 106 in the summer, the OLC extends the ability of the children to be outdoors, yet protected, the entire year.

### Conclusion

If we had accepted the initial site, the Columbia Child Development Center would still be a great place for children to learn. But our team knew that by pushing for the new site we could create a very special place. With the right site and by weaving the buildings tightly into the landscape, we were able to create what visitors to the center and staff tell us is a place worthy of miracles. If you would like to learn



PHOTOGRAPHS BY PHIL SCHERMEISTER



more about the center, visit their website: [www.gocolumbia.edu/childdev/default.aspx](http://www.gocolumbia.edu/childdev/default.aspx).

### For further reading

Curtis, D., & Carter, M. (2003). *Designs for living and learning: Transforming early childhood environments*. St. Paul, MN: Redleaf Press.

Old, A. R. (2001). *Child care design guide*. New York: McGraw-Hill.



To connect with the work of Global Collaborative OnDesign, go to: <http://worldforumfoundation.org/ondesign>



PHOTOGRAPH BY PHIL SCHERMEISTER



PHOTOGRAPH BY PHIL SCHERMEISTER

PHOTOGRAPH BY PHIL SCHERMEISTER



PHOTOGRAPH BY PHIL SCHERMEISTER



## International Working Forum of the Global Collaborative OnDesign for Children

June 27-29, 2012 • Berkeley, CA (USA)

The new Global Collaborative OnDesign for Children invites early educators, architects, designers and others from around the world to join our interactive Conference this June, in Berkeley, CA. Be a part of in-depth discussions with global leaders about the latest trends and research in the development of environments and the integration of educational principles into spaces for young children.

Call for Presentations deadline is Friday, March 25, 2012.

For registration and accommodation information please visit the OnDesign website at:

**[www.worldforumfoundation.org/ondesign](http://www.worldforumfoundation.org/ondesign)**