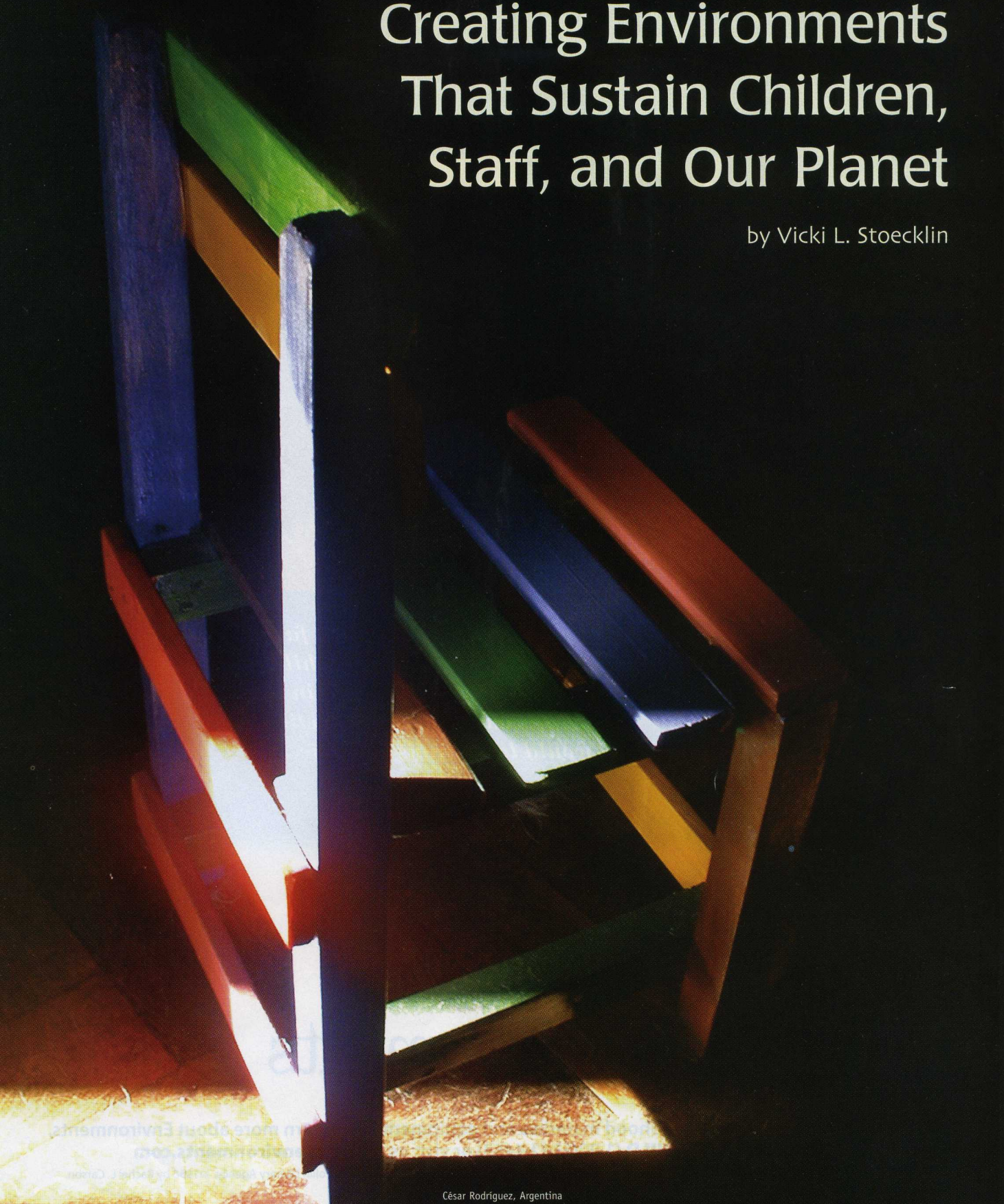


Classroom Special

Creating Environments That Sustain Children, Staff, and Our Planet

by Vicki L. Stoecklin



César Rodríguez, Argentina

Early childhood educators know that a child's values are formed before age five, yet our field has done little to teach young children how to be good stewards of the earth. We know that young children learn by watching others, yet we have rarely been environmentally conscious role models. This article discusses what early childhood practitioners can do to set a good example for children by demonstrating ways to be more in tune with Mother Earth. By doing this, we can also create environments that are better for children.

Green building design

The LEED (Leadership in Energy and Environmental Design) green building rating system is a voluntary US standard for developing high-performance and sustainable buildings. LEED rates buildings as Certified, Silver, Gold, or Platinum depending on whether they are "pale" or "dark green."

Public schools in the United States have led the way in LEED certified buildings for children; however, I know of very few childcare centers that are LEED certified. This situation may change, as nine major U.S. cities have adopted ordinances requiring that all new buildings be certified by LEED. Building green means less energy and water consumption, less impact on landfills, less global warming, and a healthier environment for children and staff. The payoffs are environmental benefits as well as improved health, financial incentives, and reduced operating costs.

While making green selections might cost more in the beginning, the long-term savings can be substantial. Choices described in this article can be

applied to new construction or renovation as well as for the day-to-day operation of a center. Let's start from the beginning.

Site selection

It is important to select a site that is environmentally healthy, which requires testing both soil and water for a variety of contaminants. While these risks may seem obvious, I was recently asked to evaluate a former glue factory for conversion into a child care center. Needless to say, this project never got off the ground.

An environmentally healthy site is also one that is far from large highways. Traffic pollution sensitizes a child's airways, which triggers allergies and inflammation. Asthma in children aged three to five increased 160 percent during a recent 14-year period according to the Harvard Medical School.

Choose a site where the building can receive maximum daylight. Save as many mature trees as possible during construction by protecting the tree's *drip line*, the area under the tree where the branches stop. Not only is shade required for the outdoor play area but it can also cut heating and cooling costs. Plants can provide children with the hands-on experience of developing empathy for nature and also control water run-off. Be sure to use water-efficient plants that are not toxic to children. This can be achieved by planting species native to your geographic area.

Energy efficiency

Consider using occupancy sensors or timers to control the lighting, so

lights are off when the classroom is vacant. Programmable thermostats and energy-efficient appliances also cut costs. Many utility companies offer free energy audits that can reveal simple ways to reduce emissions, such as sealing and insulating heating or cooling ducts.

When choosing center transportation, whether to purchase or to use on contract, look for transportation that is energy efficient. Encourage public transportation, if possible, for staff and when taking the children on school field trips.

Air quality

Air filtration systems reduce pollen and allergies. The use of low VOC (Volatile Organic Compound) materials such as paint, adhesives, caulking, and carpeting can improve air quality tremendously. I just painted the interior of our home with "green" no-VOC paint and was pleased with both the looks and the lack of a chemical odor.

The ability to open windows is desirable, as is a well-ventilated diaper-changing station. Diaper pails should be emptied several times during the day to cut down on odors and the spread of germs.

Vicki L. Stoecklin, Education and Child Development director, works at White Hutchinson Leisure and Learning Group, a company that specializes in children's design. The group sponsors a two-day institute on how to design child care facilities and has written articles on children's environments. You can sign up for their Children's Environments eNewsletter at www.whitehutchinson.com/children.



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Solid waste minimization

Do you recycle paper in the classroom; have a recycle box in the office for paper; use a composting system for food scraps? If so, you've taken important steps to cut down on solid waste.

About 60 million computers end up in landfills each year. Find a company nearby that will refurbish tech junk like computers, monitors, and printers. For future electronic purchases, only buy from those companies that have a recycle program.

Consider recycling ink cartridges from the fax machine and the computer. If you currently do not have a recycling program, consider changing to a company that will reuse them. Many schools now use these types of programs as fundraisers.

You can reduce waste and help people at the same time by giving your old cell phones to manufacturers and retailers that will refurbish and donate them to women's shelters. And, rather than put alkaline batteries from toys, laptops, and cameras into the trash, where they will pollute the environment, ask your local recycling center if they reclaim metals from alkaline batteries.

Are there larger items in your center such as old classroom furniture pieces or office equipment that you no longer use but which still have years of use in them? More than 2,000 cities in the U.S. have online recycling programs where members can offer anything for free — no strings attached.

All of this recyclable *stuff* will need some storage space and organization. Before designating a recycling area in

your facility, check with local recycling centers to see if they will provide low-cost or free recycling containers. If not, well-marked paper boxes are fine.

Having an electronic sign-in for parents, donating unused food to food banks, and having both staff and guests drink from re-usable coffee mugs makes a statement about your concern for the environment. Waiting until children are in public school to teach them to reuse and recycle is too late.

Environmental purchasing

Young children are exposed daily to many chemicals used in the cleaning and sanitizing of the center, at levels that could prove toxic to a chemically sensitive child. Various chemicals disrupt memory, cognitive function, and attention span. Do you use both child-friendly and environmentally-friendly cleaning supplies and dry cleaning services? Give preference to products that are environmentally responsible and have low toxicity.

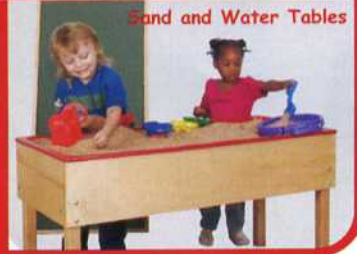
Restroom supplies, hand towels, toilet paper, classroom paper, and even office paper can now be purchased made from recycled products. In addition, avoid paper products that use chlorine bleach, as it can be quite caustic to young, sensitive skin.

In purchasing classroom furniture look for those companies that buy certified wood from a renewable source or those that are using recycled content. At least one major early care furniture company in the U.S. is making furniture from recycled sunflower content. Also look for companies that use formaldehyde-free or water-based finishing in the furniture production. Purchase from



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vendors who have environmental values similar to yours and who have made a commitment to protecting the environment. When possible, buy from suppliers that are geographically close to your center so that less fuel is used in shipping.

Water conservation

After spending time in India and the deserts of the Middle East, it became apparent to me that the U.S. is quite wasteful when it comes to water consumption. Leaking faucets and toilets can use excessive water. Do you have a maintenance system that detects and repairs leaky toilets and faucets?

If possible, install electronic-eye sinks in the center. If this option is just too expensive, then at least train both the staff and children to turn off the water when it is not currently being

used, such as during tooth-brushing time.

Does the center use water-conserving fixtures such as 1.5 gallons-per-minute faucet aerations or 1.5 gallons-per-flush toilets? While these items might seem costly to purchase, they will save you dollars in water consumption.

Daylight and acoustics

Humans need daylight in order for their bodies to function normally. Green buildings provide ample amounts of both sunlight and daylight. Again, public schools in the U.S., after much research, are leading the way in creating buildings that meet these goals.

Noise in the classroom is stressful for young children, who are developing both receptive and expressive

language skills. Classroom acoustical standards for background noise have been developed and may soon be adopted as part of the International Building Code.

Summary

They say that old habits die hard, but attitudes do develop over time and an increase in knowledge about green buildings will eventually lead to a change in behavior. There are many resources out there that provide a range of services to support you in moving towards a greener building. Use these resources to your advantage to educate your staff, parents, and children to better sustain and protect our planet.

Resources

- Chicago Center for Green Technology
www.cityofchicago.org/Environment/GreenTech/
- Community Greenhouse Foundation
www.communitygreenhouse.org/green.html
- Energy Smart Schools
www.energysmartschools.gov
- Green Building Council
www.usgbc.org
- Green Building Funding
<http://fundinggreenbuildings.com>
- Healthy School Environments
<http://cfpub.epa.gov/schools/index.cfm>
- Leadership in Energy and Environment Design
www.usgbc.org/displaypage.aspx?categoryid=19

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The bumping and bruising caused by falls on the tile-over-cement floors in her day care center alarmed Cheryl Rudd, director of Friendship House in Crystal Lake, Illinois. She began to search for safer floor-covering options. Cheryl found nothing on the market like SafeLandings®. **"Everyone was using foam padding or mats, but kids pull them apart and trip over the uneven connections, and they are impossible to keep clean. SafeLandings® looks as good today as the day it was installed nearly three years ago."**

Cheryl had the SafeLandings® System installed in the infant room of Friendship House. She and her staff could easily measure how well it worked – they haven't written a single accident report since. "Recently the toddler and 2-year-olds' rooms had the SafeLandings® System installed – it looks great."

SafeLandings® is comfortable – it makes it easier for teachers to be down on the floor with the kids, right where they should be.

To find a SafeLandings® authorized dealer near you, call 201-493-8333. References from other child care facility directors are available by request. www.safelandings.com

What is SafeLandings®?

SafeLandings® is a unique patented indoor carpet system that cushions falls up to six feet. It provides superior protection for infants and toddlers just learning to navigate play equipment. Since SafeLandings® Safety Surfacing is completely antimicrobial treated, it provides a sanitary play area for young children.

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- Fully compliant indoor safety surfacing



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■ National Clearinghouse for Educational Facilities
<http://edfacilities.org>

■ Sustainable Buildings Industry Council
www.sbicouncil.org

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Purchasing Green Furnishings for Your Program

Our choices do matter. Whenever we purchase or produce anything, we are impacting the environment and the future of our planet and the lives of generations to come. These are responsibilities that are shared by early childhood programs and by vendors to early childhood.

What and how we consume, how and what we recycle are important issues. In order to be responsible consumers, it is critical for us to learn about how things are made, what they are made from, how long we can expect to use them, and what we will do with them when we are finished with them. This is very complicated because it requires us to make careful choices and to learn not only about products themselves, but about how they are manufactured.

Manufacturers and distributors need to be prepared to educate their consumers about products and processes. And purchasers need to ask some important questions such as the following:

Questions About Safety:

What safety standards do your products meet?

Ask about pinch points, sharp edges, entrapment, and flammability. Ask if they comply with ASTM International Standards and the Consumer Product Safety Commission guidelines where necessary.

Are any toxic chemicals used in the production of your product?

Ask about surface finishes, including paints, lacquers, finishing oils, and cured powder finishes. If manufacturers don't apply their own finishes, they should be able to tell you about the vendors who do apply them and about the products and operations they use.

What cleaning agents should be used to clean your product?

Consider the toxicity of these products, as well as issues of storage and recycling.

What exact wood or other material is used in the production of your product?

Consider plywood and composite board as potential sources of dangerous levels of formaldehyde. Also consider that imported woods may not be harvested following natural resource renewal practices. Natural latex should not be present in any surface finish.

When children suck and chew on these products, is there any risk to their health from the materials the product is made from or from applied substances?

Consider paints, lacquers, impregnated wood, plastics, and textiles which could be sucked, licked, or swallowed.

Manufacturers should be able to verify that all imported products and components have been tested and comply with safety standards.

Note: Consumers should also ask about their own safety requirements, based on their own experiences and needs.

Questions About Durability:

What is the life expectancy of this product based on normal wear in an early childhood setting?

Buying a more durable product initially and keeping it in use longer, is not only environmentally sound, it makes good economic sense.

Do you supply replacement parts?

Do you continue to carry replacement components for old models?

How many years do you keep replacement parts on hand after you've discontinued a product or model?

Do you support recycling of packaging and/or obsolete equipment? If so, how?

Together as manufacturers and consumers, as parents and teachers, we can make good choices for our children now and for their future.