

How Green Is My City

Women take the lead in building “sustainable” places to live and work

BY FRANCESCA LYMAN

TO SEE WHERE IT’S “GREEN” in Pittsburgh—the Steel City with a polluted past—I take a guided tour with Rebecca Flora.

We walk past emerald arborvitae shrubs and flowering trees into the newly transformed Pittsburgh Glass Center, one of several local structures that have transformed blighted industrial wasteland into resource-conscious workspace. The native landscaping surrounding the glass-art center, located in a once-seedy neighborhood, is the least of what makes it so impressive, though. Flora, an environmental planner by education, instead enthuses about how reclaimed

panels of corrugated glass, and even old garage doors, were salvaged for use in the building, and how the furnace in the glass “hot shop” recaptures enough waste heat to supply 90 percent of the building’s heating.

Downtown, Flora takes us to the massive David L. Lawrence Convention Center, whose striking, gracefully angled roof takes advantage of convection currents off the Allegheny River to provide ventilation. The center has become a highly visible symbol of the city’s green renaissance.

Both buildings have achieved Gold ratings under the Leadership in Energy and Environmental Design

(LEED) standards set by the nonprofit U.S. Green Building Council, which assesses energy efficiency and environmental friendliness. Flora, as executive director of Pittsburgh’s Green Building Alliance, has been instrumental in moving and shaking her city toward a LEED-endorsed future.

Moreover, she’s not a lone woman in a green world; on the contrary, green building, also known more broadly as “sustainable design,” has become a particularly fertile area for women to make an impact, whether in architecture and design, landscaping and planning, or construction. “It’s a field where there’s an open game for women to enter,” says Flora. Here are just a few of the pioneers:

—In Austin, Texas, landscape architect Lucia Athens helped establish the nation’s first green-building program in 1991.

—In Seattle, Lynne Barker co-chaired the U.S. Green Building Council that helped launch the LEED standards in 1996.

—In New York City, Hillary Brown, an architecture-trained design guru, worked within the city’s Department of Design and Construction to create guidelines for energy- and resource-efficient buildings.

“If you look at the people who are pushing sustainability and doing great work, and you’ll find women leading the charge,” says Janet Stephenson, outreach and evaluation manager of Seattle’s Department of

WHAT MAKES A BUILDING GREEN?

Here are some of the basic principles of sustainable architectural design:

- works in harmony with the natural features and resources surrounding the building site.
- takes advantage of natural features such as wind and sun, thus reducing dependence on artificial lighting and heating/cooling sources. It also is well insulated to reduce energy loss, and thus energy usage.
- uses low-impact, nontoxic building materials wherever feasible.
- uses architectural salvage and reclaimed materials when appropriate, and new materials that can be rapidly replenished, such as bamboo or cork oak.
- reduces waste material going to landfills and helps reduce the amount of waste generated by occupants (such as by the use of composting).
- reduces the impact on wells or water treatment plants by using “graywater” or collecting rainwater.
- uses longer-lasting and better-functioning products that need less-frequent replacement.

Source: Wikipedia, “Green design”

The LEED Green Building Rating System judges site sustainability, water and energy efficiency, materials and resources, indoor environmental quality—and gives extra credit for innovative design. For further information, see www.usgbc.org.



Interior (left) and exterior (right) of the very green Natural Resources Defense Council offices in Santa Monica, Calif.

Planning and Development (DPD). Seattle, a mecca for green women—Barker is also now with DPD—was the first city in the nation to adopt the LEED standard, requiring at least a Silver rating for all new major public construction. (The LEED rankings start with Certified and rise up to Silver, Gold and Platinum.) Seattle leads the nation's cities in LEED-certified buildings.

Green-built homes are also booming in metropolitan Seattle, growing at a rate of roughly 25 percent each year in King and Snohomish counties. Nationally, the green residential market is growing too, with the National Association of Home Builders reporting a 20-percent jump in the number of home builders focused on environmentally sound construction. *REALTOR Magazine* calls green building one of the top new trends shaking up every aspect of building design and construction, even home furnishings.

Men dominated the early years of the environmental building movement, from the 1960s to the 1980s, when the emphasis was on solar and “appropriate technology,” according to Susan Szenasy, editor in chief of *Metropolis* magazine, which covers contemporary design. The newer sustainability movement, though, has been more populated by women, despite the fact that women are still in a distinct minority in the fields of construction, architecture and engineering.

For example, notes Kira Gould,

co-author of the forthcoming *Women in Green: Voices of Sustainable Design* (Ecotone Publishing, 2007), while the members of the American Institute of Architects are by and large men (88 percent), the percentage of women on its Committee on the Environment is double (24 percent) their percentage of the overall membership. And women comprise eight of 15 members on the U.S. Green Building Council, more than triple the percentage on the AIA's 52-member board.

Women have been drawn to the field from a variety of different avenues—some through design and architecture, others through various building trades. Patti Southard, green building specialist with King County (Seattle) Solid Waste Division, for example, started out in wood recycling and now provides technical assistance on recycled, energy-efficient and sustainably cultivated building materials. “There are brand-new opportunities in the green-building world because it is a new industry with a new culture,” says Southard.

Aside from environmental and economic benefits, much of what's driving the growth of the green-building movement is a concern for public health. Modern pre-green buildings are known for having poor ventilation and indoor pollution, arising from toxic construction materials that emit cancer-causing formaldehyde and asthma-triggering chemicals. The women green builders, like

earlier social activists, are at the forefront of concern for clean water, clean air and more environmentally appropriate sewage disposal.

But still, in most spheres of the building industry, women remain a distinct minority. “Time and time again, I walk into a planning meeting where I'm the only woman,” complains Elizabeth Moule, who designed the LEED-Platinum office building (above) for the Natural Resources Defense Council in Santa Monica, Calif. “My hope is that more women will become architects and engineers. That's the big void of women's participation.”

Maybe it's because women are so underrepresented in the building field that their entry into the green zone has been so invigorating. Says Cathy Amoroso of the Renovation Company in Atlanta, which caters to higher-end customers who favor greener features and materials, “Women in the building industry tend to be newcomers, and with newcomers come the change, modernization and a willingness to do things differently. Women challenge the status quo and aren't entrenched in the traditional way of doing things.” ■

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