

SPREAD THE WORD

Innovative Architects Practice and Preach Green

The co-winners of the “perspectives” category in *eco-structure’s* inaugural Evergreen Awards come from very different places. One grew up in Long Island, N.Y., and has made a career as an innovator, bringing green practices and awareness to a high-rise-focused urban setting. The other was raised on a farm in rural Iowa and cites his connection to the land as the inspiration to practice and preach the green-building gospel. In spite of their different backgrounds, both believe in the inherent wisdom of sustainable design and consider educating the public and next generation of designers to be of utmost importance.

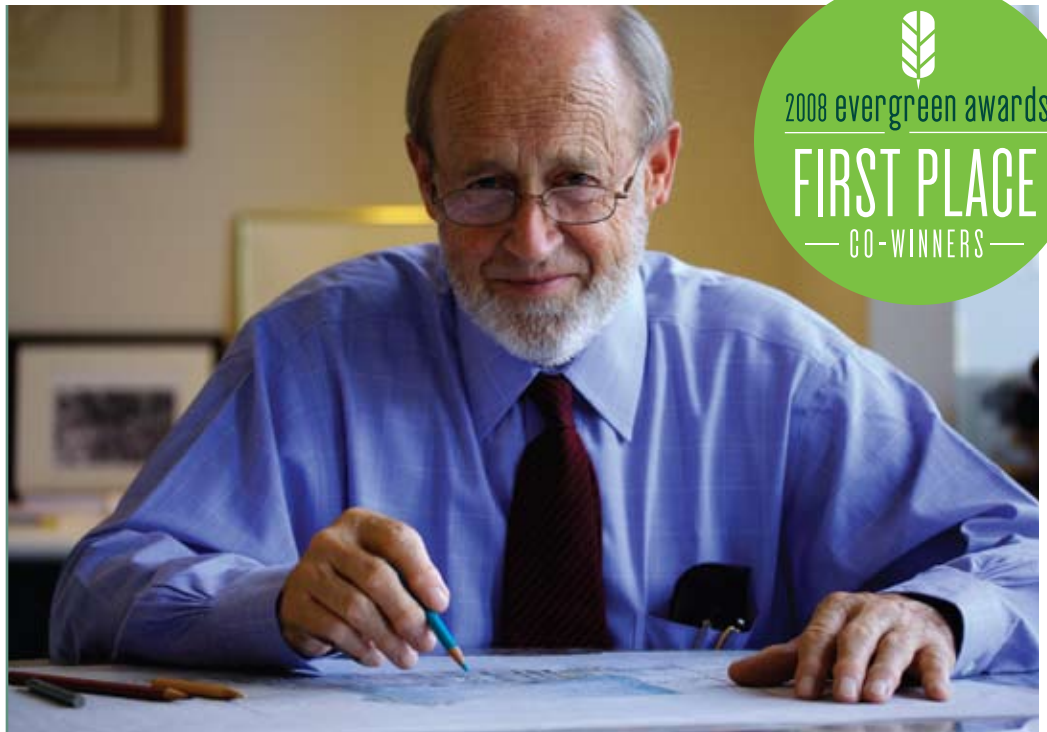


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BRUCE S. FOWLE, FAIA, LEED AP, senior partner of FXFOWLE Architects LLP, New York, has been involved with the sustainability movement since before it really was a movement. He was designing homes with green roofs in 1974 and continued his sustainability efforts with the founding of FXFOWLE Architects (formerly Fox & Fowle Architects) in 1978. His work on sustainable projects, such as the Condé Nast Building at 4 Times Square in New York, has helped define what a green building is. Fowle has worked tirelessly with civic and private organizations to create awareness in the building community and demonstrate that sustainable design simply is smart design. *Eco-structure* had a chance to speak to him about the past and future of green building.

What drew you to architecture and sustainable design?

BF: I loved to build things when I was growing up and created models from scratch. I was an avid Boston Red Sox fan and built a model of Fenway Park when I was kid. I spent my summers going to Jones Beach on Long Island, which has great sandcastle sand. I spent hours creating these in competition with other kids on the beach, although none of us would admit that. Even though I knew the sandcastles would all eventually wash away, I went home with a great sense of satisfaction and fulfillment—something that has carried on throughout my career in architecture.

“Green building is not about bells and whistles, it’s about the nitty-gritty decisions. It has to be a holistic approach, taking whatever opportunities you can to green the project.”

—Bruce S. Fowle, FAIA, LEED AP, FXFOWLE Architects LLP

My initial exposure to sustainable building was in 1969 when I designed some houses in Martha’s Vineyard, Mass., that used natural ventilation and controlled solar orientation. Having rented some houses that didn’t take those measures into consideration, I realized they were like hotboxes. It was very evident to me that one needed to design a house intelligently to withstand summer conditions and use nature to its full advantage.

When we started our firm, we were just trying to do the right thing. But with the high-rise boom in the 1980s, that wasn’t much of a concern at the time. It was all about how little air you could bring into buildings, which is what started the whole sick-building syndrome, particularly in New York where the hermetically sealed, air-conditioned buildings with a minimum of fresh air created some pretty awful interior environments.

In 1994, the city of New York initiated a program to start building green buildings for some of the libraries, police stations and fire stations, and they asked me if I was interested in submitting my qualifications to be selected as one of the five firms chosen to do that. That was the first time we had to really put together our thinking, look back at our accomplishments and express cohesively our commitment to sustainable design. We were selected and, in so doing, we became members of what was then a sort of Birkenstock cult of people in the environmental-building movement.

When we started work on the Condé Nast Building at 4 Times Square in 1995, there wasn’t any mandate of being green, although we knew the developers were interested in it. We were approached by the [Boulder, Colo.-based] Rocky Mountain Institute, which had received a federal

grant to provide engineering services to enhance the performance on four projects. They asked us if we had a project that might qualify, so we suggested the Condé Nast Building at 4 Times Square and, once accepted, that really kick-started the whole process.

At that time, there was no real definition of what a green building was. The largest serious attempt in the U.S. had been a 50,000-square-foot [4645-m²] building in California. The Condé Nast Building at 4 Times Square was going to be 1.6 million square feet [148645 m²]. There was a huge learning curve to educate ourselves, our client and the entire industry when it came to greening a building of that scale.

Without any kind of guideline, how did you go about greening the Condé Nast Building at 4 Times Square?

Well, the first thing we did was to make the idea part of a retreat with the owners, consultants, construction managers and other stakeholders. We came up with a list of all the things we thought might be achievable to make the project green. We vetted that with the full group and whittled it down to a list of things like absorption chillers, variable speed pumps, fans, fuel cells and photovoltaics—the whole gamut of what was available and practical at the time.

As the process evolved, we learned a lot of lessons about what works and doesn’t work. For example, we were surprised to learn that if the performance of the glass was too good in terms of containing heat, the building couldn’t cool at night and therefore would require more energy in the morning. It was extremely important we

publicize all that we were learning and share our knowledge with the industry and public. There were more than 400 articles published worldwide about the project, which is something we’re extremely proud of.

Do you have a particular philosophy regarding green building?

Green building is not about bells and whistles, it’s about the nitty-gritty decisions. It has to be a holistic approach, taking whatever opportunities you can to green the project. If you don’t have the right people at the table at the right time, things are going to slip by. Every project we do we evaluate in terms of its greenness, what opportunities there are and what opportunities might be missed. We try to maintain that kind of constant awareness—a culture of sustainability, if you will—that is so important to make it happen. It doesn’t happen by itself. The wonderful thing is that the marketplace has turned around now, and there are statistics that demonstrate that green buildings are getting higher resale value, rents and rates of occupancy. It’s just good business.

What kinds of things do you consider important looking forward?

A lot of it is creating awareness. People are more tuned in and are putting pressure on their employers, landlords and developers to create more healthy environments, but we need more of that. We also need to have leadership in Washington, D.C., that is genuinely interested in finding renewable-energy sources, not just looking out for special interests, and making sure we’re conserving and not just drilling. The political will needs to come from the bottom to make things happen at the top. We need to educate people and make individuals more responsible for their actions. Things are starting to move more on the local municipal levels, but we need to get it into Congress and the White House, as well as state governments and agencies.

Most importantly, we need to educate our educators. Too many school and professional design awards still disregard sustainability. We have to stop calling anything excellent in design if it is not environmentally responsible. The planet is in a crisis, and buildings have the greatest impact on climate change. As architects and builders, we have a responsibility to envision new lifestyles that use less energy and reduce greenhouse gasses.

KEVIN NORDMEYER

An architect, as well as an advocate and educator, Kevin Nordmeyer, AIA, LEED AP, design partner with RDG Planning & Design, Des Moines, Iowa, is a perfect example of the kind of grassroots leadership that thinks globally and acts locally. He has spread the benefits of green building by word and deed for many years. The recipient of numerous state, regional and national design awards, Nordmeyer also is the founder of the Iowa Chapter of the Washington-based U.S. Green Building Council and a recognized educator of students and professionals. *Eco-structure* had the opportunity to speak with Nordmeyer about his design philosophy and his passion for education.

What drew you to green architecture?

KN: I'm a native Iowan and most Iowans are connected to the land. My father was a home-builder, so I wanted to be an architect since I was a child. One of my first projects was to design the Center for Energy and Environmental Education at the University of Northern Iowa in Cedar Falls in 1992. The school received a grant from the [Washington-based] U.S. Department of Energy to design this building and develop programs for environmental stewardship and energy education. The facility was a setting for teachers to develop curriculum on energy and environmental issues. There wasn't a lot of information back then, but we made the best decisions we could about low-embodied energy materials and high-performance building design. That lit my passion and made me realize there is no other way to design.

We see sustainability as something we are obligated to do for our clients, whether they ask for it or not. We always try to approach every project from a sustainable perspective, whether it is measured with the LEED system or not.

It's about trying to design something that's functional, beautiful and site-specific. I think it can be as simple as knowing when to ask the right questions about environmental issues. Our teams know, as we start to think about the orientation of the building, we need to be aware of where the sun is. We need to be aware of the climate. If we're designing something in Florida, it's different than designing something in Iowa. Solar angles are different, winds are different and temperatures are different.

Something people are talking about now is engaging everyone involved in the project at the first meeting in an integrated design process. Everyone has to be there so everyone can understand the goals, agree to them and use them to evaluate the process as it goes along. Where projects fail or don't realize their maximum gains is when they try to engage people late in the process.



PHOTO COURTESY OF RDG PLANNING & DESIGN

As a firm, we define quality in terms of performance and design. For us, the most fulfilling projects are those that win design awards while being shown by LEED or other measuring systems to be exceptional environmental projects.

How did you become involved in education?

Having attended Iowa State University, Ames, I thought it would be interesting to return and teach a studio based on my experience with sustainable design. When I started teaching five years ago, it made sense for me to focus on sustainability because it complemented the theoretical education. I was able to come in as lecturer and bring real projects to students, getting them to think about environmental issues and learn from these experiences. Hopefully they apply these principles to the projects they do as professionals in practice.

I learn as much from teaching as I do by working, so it's all about continuing lifelong learning for me, as well. But the real fulfillment comes from knowing there are 20 or 30 students each year

that hopefully are learning something about sustainability then going out and doing it. It's great when I see a student say "there's just no other way to do this." Exactly. With the growing environmental problems we have regionally and globally, we have a responsibility to think this way.

What are some of the issues we should focus on for the future?

When LEED started out, the focus was on the design aspects. What we need to focus on in the future is the performance aspects. We need to make sure there are systems in place to ensure that buildings are performing to the level they were designed to and can continue to perform at that level or better. Ongoing performance in existing buildings, as well as new construction, is a big issue. There are millions of square feet of existing buildings out there that need to be upgraded and retrofitted to perform better than they do today.

What do you see as the main drivers needed to make this happen? Will it be driven by regulation, bottom-line costs or grassroots demand?

My immediate reaction is all of the above. There does need to be some government incentives to make things happen. Some of that already exists internationally. For example, I understand in some cities throughout Europe, building owners are charged for storm water that leaves their site. Many projects consider green roofs and other aggressive storm-water-management systems because they are taxed if they don't.

Whether with tax incentives or mandates, I think it's going to require government involvement to help make significant changes in energy conservation and aggressive sustainable design. However, I do think it also requires continued education of clients to understand that making good decisions for their buildings is more than a cost. There are great benefits for human performance and increased productivity. It has been demonstrated that people perform better in buildings that are sustainably designed. Most people, even if they don't feel like there's a carbon problem with our atmosphere or a real energy crisis, typically will understand the return on investment of simple energy-efficiency calculations and increased worker productivity through high-performance design. 🌍

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—Kevin Nordmeyer, AIA, LEED AP, RDG Planning & Design