

(Re)defining The Edge

By Susan S. Szenasy

This talk was delivered by Metropolis editor in chief Susan S. Szenasy on September 8, 2004 at the University of Oklahoma, where she was invited by the Architecture and Urban Studies department to deliver the first in this fall's Bruce Goff Lectures, teach a selected group of architecture students, and talk to members of the local American Institute of Architects.

Patterns are fascinating things. You might be looking at one for some time and see nothing, but all of a sudden you shift your point of view or see a new detail emerge, and the pattern starts taking shape. It might be unfamiliar or even strange for a while, but somehow you know you are looking at something you have known was there all along, yet it is also entirely fresh. Let me tell you what I'm seeing in these first tender years and months and days of the 21st century.

I see old patterns everywhere--patterns that no longer look and feel as if they could tell the story of who we are, who we have become as individuals, as professionals, as citizens, as members of families and communities, as inhabitants of our small, blue-green planet.

The new pattern that I see emerging is shaped by the growing belief that ethical behavior is paramount to our continuing survival and existence. I began to understand this pattern when, about a half-dozen years ago, I was asked to teach a course on design ethics at Parsons School of Design in New York. Being of adventurous mind and spirit, I accepted the assignment, though I agonized about all that I didn't know or understand about the subject, especially how it relates to design.

As an aside, the important thing to remember in all that you do throughout your long lives--especially when you are given a seemingly impossible challenge--is to say "yes." When you say yes to a project that seems unbelievably difficult, you could be opening the door to a whole new way of thinking, to a whole new set of patterns. You are also opening the way to a fuller realization of who you are--and better yet, who you want to become--when you conquer a difficult problem. And when you begin to understand it--and catch a glimpse into the human condition--you realize that you are doing the work of the gods.

Now don't misunderstand this. I am not talking about religion or power. What I am talking about is the adventure of the mind. The divine spark for this grandest of adventures exists in each and every one of us. I am convinced of this.

So there I was, having said yes to teaching ethics, and wondering how I would do it. I imagined giving difficult reading assignments to students, many of whom came to design school to escape reading. I worked with reading lists before. I taught a history course at Parsons (and still do). I knew that few of the students actually read the assignments. Besides, the reading was a technicality anyway. The big question was, how do I approach the subject of ethics? What would be the basis of our inquiry? We could talk about design piracy, unfair bidding for jobs, or any number of topics that fall under the rubric of professional standards. But such discussions always felt empty to me. Though they are important, these topics left out the larger reason for ethical professional behavior.

Then I read the oath that doctors take. The Hippocratic Oath says something like "First, do no harm." I wondered how this do-no-harm rule would apply to designers. There are, by and large, many excellent architects whose buildings support the uses they were designed for. Apparently, they're following the do-no-harm rule. There are wonderful interior designers whose rooms work for the functions they're in. So they do no harm. There are

great industrial designers whose products do the job they were intended to do. Neither do they seem to harm us--with the exception of my DVD player, which may cause me to have a heart attack. The responsibility for the public's health, safety, and welfare is written into most professional codes of design ethics. So it felt like I was on to something.

Then I thought about what we've been doing at *Metropolis*. Could that have had something to do with Parsons asking me to teach ethics? From the start we felt that design was much more than a styling or form-giving exercise. We always worked under the premise that design is an essential vocation that mirrors culture and operates within our social, economic, and political system. And because what designers do is so closely tied to the quality of our lives, we have always felt that designers have a set of responsibilities to the public they ultimately serve.

This high valuation of the necessity of design is our preferred stance. But many professionals--though they seem to agree with us--run practices that cater, as William Morris said in the 19th century, to the "swinish luxury of the rich." Or as Victor Margolin wrote in the late 20th century, design is "essentially a middle-class profession that has delivered a comfortable life for middle-class people while indulging the wealthy."

In recent years we have seen swinish luxury celebrated everywhere, and design hasn't been left out of our consumerist fantasies. Ego-driven--oh, let's be kinder--art-driven projects in architecture are given star treatment by the media as well as the profession. We at *Metropolis* do our own share of this. Though I hope we fawn less than most.

So if the do-no-harm rule is applied--if designers are responsible for the public's health, safety, and welfare, and if what they do is essential--then we have the basis of our ethics inquiry. Well, almost.

I turned to an economist to help me get to the next step in understanding how we should think about ethics. David Korten makes a distinction between shareholders and stakeholders, and how the behavior of each shapes our world.

Many of your parents, or, in some cases, even you yourselves, have become shareholders in multi-national global companies. Middle-class investment in the stock market has grown to unprecedented figures in recent years. As shareholders, your main interest is making a profit. And being Americans, you want that return on your investment to be fast and big.

Now if making money is your sole interest--and in principle, there's nothing wrong with making money--you will close your eyes to all kinds of nefarious practices. These have included sweat shops, child labor, poisoned aquifers, the formation of brownfields, and the addition of carcinogens to our everyday products. All of these somehow exploit other people, most of them with a fraction of our resources.

Stakeholders, on the other hand, behave very differently. They feel themselves to be part of a community that shares its essential resources--food, air, water, and security. Stakeholders are not above making money. They just know that without universal healthcare, without social institutions that support education for everyone, and without a livable wage that accrues to all members of the community, we are birthing a pissed-off underclass that no gated community, no infrared devices, and not even artillery can keep from our backyards. The stakeholder mentality is beginning to re-define the edge.

Talk has increasingly focused on sustainable design. This is a global phenomenon, and it has many interpretations. The British paper *The Sunday Herald*, for instance, recently reported that chain stores are spreading "like weeds in a garden" and turning home towns

into “clone towns.” Those who own shares in the chains are doing very well indeed. But just listen to what their financial gain is producing elsewhere.

The Sunday Herald says, “The loss of diversity [which is created by many small, privately owned shops] inevitably leads to a loss of choice for consumers.” But there’s a bigger price to pay for this stockholder-driven economy. Local livelihoods are decimated. “Profits drain away from smaller areas to ‘remote corporate headquarters,’” the *Herald* says. Here you see the social fall-out of unsustainable planning practices.

The policies we have in place today favor big multi-national companies. In England for instance, “Local shops aren’t allowed to apply for any kind of business development grants, whereas manufacturing and service sector businesses are,” according to the *Herald*, which concludes that this “is fundamentally unfair.” Clearly the laws we make have a lot to do with the society we live in. But many designers would like to believe that what they do is politically neutral.

For instance, whenever we write stories like the one on the happy world reflected in the graphics of the Bush Web site, or town planning as an instrument of political policy in Israel, we receive a few irate letters from readers. Some even cancel their subscriptions. But these stories must be told if we are to remain faithful to the high value we place on design and design’s complex role in society.

In the past dozen or so years, a new pattern has begun to reveal itself for shareholders, who may actually start to see themselves as stakeholders one of these days. A Canadian paper recently reported growing industrial activity in off-the-grid products like photovoltaics that will make it possible to light the outdoors without plugging into the local utility. Some companies are harvesting straw for ethanol, which they substitute for polluting fossil fuels.

Brownfield reclamation is bound to be big business as we grow to understand the value of waste products of all kinds. Water and the lack of it is becoming a survival issue in many parts of the world. Membrane technologies for water filtration are being developed, and ultra-violet lighting technologies are being used to kill water-borne contaminants as firms search for a substitute for chlorine, a known carcinogen.

Wind power is a reality in many places. It even played a role in selling the reconfigured Freedom Tower on Ground Zero in lower Manhattan to the governor and public. New York’s Governor George Pataki has put some pretty good green laws on the books, but can the proposed wind turbines live up to their promise? Will they massacre millions of birds? Will the vibrations from the blades be felt in the building? How much energy will they really supply? How high will the maintenance costs be? And who will end up paying for them? How little we know.

And yet what we know is that the lost office space will be replicated regardless of whether it will be needed or not, even though the numbers and kinds of jobs that used to occupy the World Trade Center may never again exist. Paul Goldberger writes in his new book, *Up from Zero*, “Perhaps the most disturbing aspect of the entire saga of planning Ground Zero was the possibility that the Freedom Tower might turn out to be less of a symbol of renewal than of how little had been learned from the troubled history of the original World Trade Center,” which destroyed the city grid, created a kind of super-size suburban shopping mall with two humongous towers in the middle, and took all kinds of civic and art group interventions to enliven its dead places. All of which points out what happens when the architect’s first order of responsibility is to his client. The client wanted ten million square feet of office space, and so Ground Zero became just another development site.

While the citizens of New York and the world were looking for transcendent architecture--we were expecting a high-tech Machu Picchu--the architects were giving us rentable space. While the New York architecture community talked endlessly about how the Ground Zero redevelopment elevated the public discourse on architecture, the reality was that our most powerful architectural firms were in the business of giving shape to a wealthy developer's program. The public's need for beauty, sustainability, and community was a minor annoyance to them both.

Such undying respect for the client's needs is often at odds with what the people need. If architecture and design are to truly become part of the public discourse, I suggest that designers become advocates for the people, and by implication advocates for the environment that gives us air, water, and food.

When I began to understand the reality of the multi-tiered responsibility architects and designers face, I saw the direction our inquiry on design ethics needed to go. We needed to explore and weigh each designer's responsibility to the self, the client, the community, and the environment. One cannot exist without the other, but this inclusive thinking is very difficult. It confronts the inertia of old thought patterns.

Socially and environmentally concerned citizens are dismissed as BMWs--bitchers, moaners, and whiners. People who want to continue on the path of heedless development and consumption--aware that the system isn't working anymore--say things like, "We'd get a lot more accomplished if we didn't have so many BMWs working here." Well, I say to them, we have no choice but to bitch and moan and whine until we are heard.

But maybe we don't need to do that. Maybe if we study history and use its lessons to inspire a fresh new way of thinking, we will be able to make powerful arguments for ethical design. Because I have studied history and have been teaching it for some time now, I decided to base our ethical inquiry on the thoughts, lives, and works of those who came before us. A rule of thumb: always build on what you know. We do, indeed, stand on the shoulders of giants. They lift us up high so that we can see our new horizons.

Who better to teach us about informed, socially responsible, humane design than William Morris? This man of wealth and enormous intellectual curiosity helped create a counter-revolution to the 19th century's Industrial Revolution. He taught us that you can enrich human thought, action, and design by looking back--in his case to medieval times. Though he was idealistic, bombastic, willful, and flawed, Morris nevertheless taught us how rewarding the relationship between maker and user can be.

Law has its precedents. Why can't design? Every historic figure we study in ethics class--Morris, Gropius, Dreyfuss, and the Eamses--held high personal standards. They invented lifelong learning before it became a buzz phrase, and they never shirked from sharing their knowledge with their new clients and students.

I can't imagine any one of them would say that they don't explore new materials and processes because their clients don't ask for invention. Who ever asks for invention? You just do it, because you cannot do otherwise. You explore a new material, a new way of building, a new understanding of site and topography because you want to know. And then you share your knowledge--well-founded, solid knowledge--with your clients. Some of them will find your enthusiasm infectious. Some won't. But you cannot let perceived apathy and ignorance stop you.

So now we have professional behavior: an historic precedent for do no harm. The missing link in the ethics picture must be environmental sensitivity.

I mentioned our blue-green planet. It is a 20th century image that will inform our thinking about who we are and where we belong for a very long time to come. Through our powerful satellites, we can trace the path of fires in China as smoke chokes distant populations. Web sites brim with useful information if you want to understand the world you are designing in. You can download facts and pictures of everything from melting polar ice caps to polluted rivers to brownfields. These and more are available to us from NASA. We paid for this technology with our tax dollars. It behooves us to use it for the benefit of ourselves, our fellow creatures, and the earth that gives us breath, water, and food--life.

We are re-defining the edge and entering a complex world of new paradigms. A new world view is forming. At its core is the interconnectedness of sun, sky, land, you, me, and the myriad creatures and resources of the Earth.

There is something very beautiful and elegant about the thought that we all share one giant breath with each other and every other creature on Earth. If you think about that shared breath, you will start to look more carefully at the materials and processes you use. I believe that we are entering a new research and exploration phase. Should you choose to accept the challenge, architects and designers can be at the leading edge of positive change.

You are the ones who specify and use a large portion of the Earth's resources. Knowing that you can contribute to the welfare--or to the demise--of your fellow creatures behooves you to study your materials carefully and find new ones that do less harm to our environment. This is the ethical thing to do. This is the way of the 21st century. Your search is a long-term project. Green is not a fad, it's a means to our survival. All of us have a stake in it and must do the very best we can.

Everyone can come up with a small part of the humongous answer to environmental degradation, remediation, and eventual sustainability. Design and architecture schools can be at the forefront of exploring materials and processes. The studio system is a powerful and potentially dynamic tool--a fertile environment for innovative and intelligent problem solving. All of you do research, explain your findings, incorporate them in the architecture you make, and test function and performance. Your studios are poised to make essential contributions to redefining the edge. Maybe your teachers are not fully equipped to deal with this new paradigm of interconnectedness, but they know how to navigate the building process, and they understand professional relationships and political bottlenecks.

Many professionals seem to be caught by surprise by the growing demand for LEED-certified buildings. We've been talking about this performance rating system for years. So have the other professional magazines. But it is only now that publications like *Fortune* magazine and the *New York Times* are reporting on the financial merits of energy-efficient healthy buildings, and many architects are asking, what is this thing called LEED?

It galls me when I hear that, but then I calm myself down. At least they are asking. Of course, this is after they have lost jobs to better-informed firms. But the most encouraging thing about this growing need to build energy-efficient, healthy buildings is that a new body of knowledge is developing that is built on historic precedent and technological breakthroughs.

A whole new set of architectural muscles are about to be pumped up. I believe that this new knowledge of designing sustainably will be used differently than current practices would indicate. Collaboration--long lip-serviced by the professions--will need to be learned anew. Working together is hard, but it's extremely rewarding and the results can be stupendous.

The edge is being redefined as the province of lean and extremely well-informed teams with inspired leaders. Since today's problems are enormous and complex, many specialists are needed to solve them. The jeering across professional lines must give way to mutual respect and trust. It's the only way true collaboration can occur. We'll need some psychologists on these teams, just as we will need people with expert knowledge in life sciences, history, culture, language, and a myriad of other fields. The university ought to be on the leading edge of collaborative work, but for that to happen, the silos of academia must fall, replaced by a level playing field for every necessary participant.

You--yes you, me, and all of us--have a stake in leading this change. To do our part, we instituted the *Metropolis* Next Generation Design Prize. We are looking for big ideas that take the profession to a new edge. Sustainability, access, community involvement, material innovation, and systems-thinking are what we're asking for and what we're willing to back up with seed money to support the winning idea.

I am tired of vanity architecture awards judged from pictures of last year's pickings. I want architects and designers to overcome the low expectations placed on them by other magazines and by their profession's leaders. I want you to strive to propose difficult ideas that need to be tested and developed: ideas that have long-term implications and short-term influences.

The winner of our 2004 Next Generation Prize is a young firm in Cambridge, Massachusetts: Single SPEED Design. They came up with a way to turn garbage from the Big Dig--parts of the Federal Highway and bridge system that used to choke Boston-- as a material for beautiful, accessible housing. A material that is old yet new in the way it is used can literally come from your own backyard, and you don't have to spend money on fossil fuels to ship it thousands of miles.

One of the 2004 Next Generation runner-up proposals came from a team working at a research lab at Rensselaer Polytechnic Institute. Students in architecture and engineering, professors, and experts from other institutions have come together to reinvent the photovoltaic cell. Their façade product, which uses fresnel lenses to focus sunlight, is about to be tested. At least one architect in New York City is looking to use it on an academic building. Beautiful, technically sophisticated, and with great potential for energy-efficiency: this is architectural invention. While other architects complain that they become mere specifiers of standard materials, Anna Dyson--who leads the Rensselaer team--proves that architects can be at the forefront of redefining the edge of building arts and crafts.

Doug Garofalo, Greg Lynn, Winka Dubbeldam, Tom Wiscombe, Hernan Diaz-Alonso, and many others are evolving new forms by using software tools like Maya, Rhino, and CATIA in inventive ways. They work with rapid prototypes, 3D printers, and CNC milling machines to test their ideas and fabricate their buildings. Granted, they're still in the one-off business and only on rare occasions do they propose ideas for affordable housing, inner-city schools, and homeless shelters. These remain wide-open fields for architects looking for a special challenge.

Nothing lights your fire of exploration and makes it burn bright more than studying the life and work of people you admire. I came across two people last week worthy of hero status and emulation--both making great contributions to architecture and both exemplars of ethical behavior. They prove that an ethical life can be highly satisfying and even lucrative.

The first is J. Irwin Miller, who died last week in Columbus, Indiana at the age of 95. He was an industrialist who could have wallowed in greed and spent his life gobbling the wealth of the Fortune 500 firm he ran, the Cummings Engine Company. But this man who earned

a master's degree in classics from Oxford University and played his own Stradivarius had an admirable thirst for knowledge and an unparalleled social conscience. He read Greek and Italian, was the first lay president of the National Council of Churches, was an advocate of civil rights who helped plan the 1963 march on Washington, a juror for architecture's Pritzker Prize for seven years, and an unmatched patron of architecture.

With the help of Mr. Miller, some 70 buildings by world-class architects were built in Columbus, Indiana, a town of less than 40,000 people. He understood perfectly the immense personal reward of an adventurous mind and an ethical spirit. And he understood the importance of excellent architecture in building community.

William Le Messurier is a successful engineer whose career and livelihood--along with the lives of thousands of people--could have ended in an instant had he not done the ethical thing. Le Messurier was the engineer of the Citicorp building, which was completed on New York's Upper East Side in 1977. Shortly thereafter, he got a call from a student who was questioning some of the engineering solutions Mr. Le Messurier devised for the slant-topped skyscraper. As the story unfolds you see how important the student's question really was.

Upon reexamining his calculation, and after realizing that the contractor skimmed on the hardware that holds up the building--and with the hurricane season approaching, unusually high winds being predicted in 1978, and the building not having been tested for certain wind velocities and angles--Mr. Le Messurier saw a potential catastrophe. He could have blamed others--certainly the contractor had contributed to the problem--or he could have kept quiet and hoped the building would not collapse.

Instead he did the right thing. He did the ethical thing. He alerted the client, the city, the lawyers, the other engineers, the architect, and the Red Cross to the problem. They came up with a solution--an evacuation plan--that would prevent the tower from toppling onto the dense streets below in case the building was weakened by the strong winds. The faulty parts were fixed in record time before the winds hit, and Mr. Le Messurier ended up paying a large amount of the fees incurred by fixing it. He did not lose his insurance though, which would have put an end to his engineering practice. He gained the reputation of a man of conscience and quick action: an excellent leader.

Everything I talked about here implies a personal choice made by someone who considered more than his own welfare and his client's needs. As an editor, my job is to ask questions. So the question I ask of you now is this: how will you prepare yourself to make hard choices? And as a follow-up, what can you contribute to making a new pattern which reflects the 21st century ethos of environmental sustainability and social equity? Are you willing to take part in redefining the edge?