Constructs Yale Architecture

1) The architect designs something with attention to detail, imagining the process of it coming together—"Craft and Design"; 2) she figures out how to enhance and share these design decisions with others—"Information Sharing"; 3) she structures the office to process, synthesize, and manage this information inside the office—"The Organization of Labor: Architecture"; 4) she guides her firm into contractual relationships with other organizations outside the office—contractors, construction managers, subcontractors, fabricators, lawyers—to turn this information into a building—"The Organization of Labor: Construction"; 5) she wonders whether she can't market all this intelligence so it isn't wasted on a single product—"The Market", and 6) then (maybe) she wonders what it all meant—"The Big Picture".

Spring 2007

Constructs

To form by putting together parts; build; frame; devise. A complex image or idea resulting from synthesis by the mind.

A Note on the Type: Helvetica Neue R
The intention of this project is to render a type family by using the language and functions of software. Instead of bold, medium, italic, etc., it should now be possible to involve other dimensions (time) or qualities (the ability to move, grow, hide, read) in the production and use of digital typography. Variations on a typeface emphasize different modes of production for the headlines of *Constructs*. This issue introduces Helvetica Neue R Bacon by Derek Barnett, with programming by Steven Brekelmans. The typeface implements Francis Bacon's biliteral cipher to encode a message through all of the display typography in *Constructs*. A key is included on the back cover, with which the careful reader may decipher its secret writing. http://cipher.fof.ca

Front Cover: Excerpt from Peggy Deamer's introduction to the symposium "Building (in) the Future: Recasting Labor in Architecture," October 27–29, 2006.

Back Cover: Francis Bacon's biliteral cipher key from page 79 of *Rules for Explaining and Decyphering All Manner of Secret Writing* by John Falconer,1692.

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Roger Madelin

Roger Madelin, of London, is the third Edward P. Bass Distinguished Visiting Fellow in Architecture. Madelin, who developed Central Square Brindleyplace in 1994, in Birmingham, joins Davenport Visiting Professor Demetri Porphyrios to teach an advanced studio at Yale in spring 2007. Nina Rappaport interviewed him for *Constructs* about the site for the studio, Kings Cross Central, which his firm, the Argent Group PLC, has under development. He gave a lecture, "Building a New Piece of City," on January 11.

Nina Rappaport: How did you become involved in development projects and start working at Argent twenty years ago? How does Argent's corporate philosophy, expressed in your "internal attitudes" document, allow you to pursue schemes that "can improve on the built environment; have the potential to become part of a real place; follow sustainability principles all with a trust and integrity"?
Roger Madelin: I first worked for a building contractor, having graduated in building engineering, and became intrigued and frustrated about what happened before construction started and why no one pulled the whole process together from the conception of a building project. When I became chief executive of Argent in 1997, I thought that I would put down on paper what our attitude to any question would be about development: how we set our business objectives, the way we think about the environment, communications, and overall goals. Our projects have to fit these goals, and we only do things that we actually feel are rewarding and fulfilling, that make a difference, since we are a private company and have a choice. Obviously, we have to make money, and we should only do things where we have a competitive advantage, as well.
NR: How did you become the prime developer for the Kings Cross Central development, a 67-acre site in the heart of London? When St. Pancras Station is expanded by architect Norman Foster ('62) it will become an international station for the new high-speed train line, extending from the Channel Tunnel Rail Link (CTRL). While the area is already a major local transportation hub, how will this terminus serve as a catalyst for economic growth in a long-ignored section of London?
RM: I had been at Argent for two or three years, and we had been excluded from a development opportunity where we learned that if you have a project idea, you need to make sure that you control the land. I had a conversation with the founder of Argent, and we talked about what we would like to do before we die, and we agreed that we would like to create a real piece of the city of London where people would go and say, "This is a good place." We got a big piece of Birmingham five years later, but then we didn't feel that we were financially or intellectually strong enough to go for any of the big projects in London until the mid-1990s. At that time, we were aware that the land parcels around Kings Cross were going to come up for proposals again. In the later part of 1999, I talked with the agent involved and asked how they planned to organize the project. For example, would they choose a partner in the proper way, one with a pragmatic, deliverable vision for a robust piece of the city where the risk and rewards are shared once the project moved through the economic cycles? And would they have that team create a great scheme so that the best value would be created? And they said, "That is exactly how we are going to choose a development partner." I didn't believe it for one minute, but when they then asked for expressions of interest, we submitted one and went straight from one of twenty-seven to one of three.

At that phase we decided to stick to our guns, and we said that if you want a development partner to deliver a large piece of our city, the long term is essential. You can't do the master-planning without the facts. First, you need to get and understand the facts—the legal aspects, infrastructure, social, economic, transport, scale, etc.—so all you can do at this early stage is to propose a structure for a financial deal and to set out a process as to how you will go about master-planning the project. But the other two bidding teams started drawing master plans and produced glossy images, but we stuck to words and figures, and we were selected. We then spent nine months assembling all of those facts and set up the constraints to develop the brief. Our team included Demetri Porphyrios and Allies and Morrison architects. We involved them in our "Principles for a Human City," which we published with input from the heritage and planning groups.
NR: "Principles for a Human City" includes goals such as creating a lasting new place with a vibrant mix of uses; finding ways to harness the value of heritage; creating a robust framework; committing to long-term success; securing delivery; communicating clearly and openly—all of which reflects the firm's "humanist" approach. These conditions to improve and enhance urban life are similar to the internal business principles that you developed for your staff, but in the "Principles" these goals are transferred to the physical development project.
RM: Yes, I would say that is right. I have never articulated it that way. We set out our own internal philosophy before we set out the business plan in exactly the same way as the principles for the Kings Cross development.
NR: So how are the "Principles for a Human City" different from a regular urban development scheme, and do you want to make an organic city? How do you create a new place so that there is a vital mix and a sense of place?
RM: The most relevant experience is the one that we have from Brindleyplace in Birmingham—financially or physically, you can't do it all in one go. We had to make sure that each phase washed its face. We invest X, and we get X plus a little bit and then move on to the next phase. You have to maintain flexibility and be open to future potentials. What we found at Brindleyplace is that as you move forward, it leads to other possibilities. So even though the time frame is faster than an organic city, which takes decades to build, you are still experiencing that process of new ideas and responding to the market.
NR: Is this what you mean by the "robust urban framework," in which places can adapt over time to new needs and urban conditions?
RM: The robust urban framework allows for new ideas and building types to come in that you didn't envisage, and maybe the

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framework didn't allow you to do everything. The framework has accommodated change, and they responded. We have the confidence that the first phase of Kings Cross will be an exciting mix of uses. Even though we might have ideas for the second phase, people will approach us with ideas that we didn't think of, such as a music cluster or food cluster or a concert hall.

NR: How has the public/private organization of the Kings Cross development played out? Is there still controversy in terms of the Camden community, where some people thought there was too much commercial use and not enough historic preservation?

RM: Just recently the legal agreement that we signed with the Camden Council was approved by the politicians, 12–2. There are less than twenty individuals who try to make as much noise as they can and make themselves representative of larger numbers—and they are not—and they have used all the weapons in their arsenal, and the Camden Council reviewed the process and politicians had a chance to hear the grievances again.

NR: What is sustainability to you? Is there a chance that Kings Cross could be a model sustainable urban project with possibilities for experimentation with zero-carbon-emissions, wind and solar energy sources?

RM: Sustainability for us is social, economic, and environmental absolutely together. In our view, you can't separate one from the other and if you do, it goes against our definition of it. There is no point doing something if it is not economically sustainable, because it can't last. People have to finance it and people have to have the means to enjoy it—physically, financially, and socially. The project will fundamentally incorporate better-insulated buildings with energy conservation systems that utilize the natural environment, with daylight and cooling, etc. The city's policies for the environment were in formation as we were formulating our plan, so we reached the same point together in terms of local energy generation utilizing combined power systems within the medium term, with sustainable fuel such as bio-gas. The wind turbines and photo cells will do a little but will primarily signal the intent. We hope that it becomes a model project but not a wacky prototype, because it has to be economically sustainable, too.

NR: Does this mean that you are generating your own electricity and building a power plant?

RM: Yes, we are generating the full base load of our electricity on the site with a number of combined heat-and-power engines that will also provide hot water and distribute water in a district heating and cooling system. This will be part of the first phase, which includes two residential buildings, a new University for the Arts center in the granary building, public space, and infrastructure that will connect to the surrounding streets to the canal. South of the canal around the stations and up to the new canal bridge, we will be refurbishing the German Gymnasium Building, the Great Northern Hotel, and we will be building three new office buildings with retail and restaurants on the ground floor and connections to the north. The first phase will be mixed and have its own public realm and civic space and will be connected to existing parts of London.

NR: Does that mean that you are building your own streets and sewage systems? What does the city contribute to the project?

RM: In the U.K. we have an extraordinary amount of freedom. Of course, we have planning guidance from a regional and national level, but within that, how we phase it and what we include is up to us. We have brought the public authorities along with our ideas and if they didn't like it, they would stop us, but it is driven by us. The converse side of that is that we are providing twenty new streets, public spaces, electricity supplies, and drains at our expense. One of our partners will be a major electrical distribution company. Whilst we could have a private police force, it will be better if we work with and add to the local police force.

NR: Who will live here and how do you make it mixed enough so that it follows Ken Livingstone's desire for 50 percent affordable housing for new developments?

RM: We will have 44 percent affordable housing, and there are lots of regulations for this. For us, what we call "social housing" is for the lower incomes and will be allocated by the local authorities with a certain number of families and unit sizes with a Sustainable Renting Plan, where they agree that they won't put just one kind of tenant in a building. They have agreed that there will be an element of mixing within their own allocation. There will be moderate-income housing and public-sector housing for teachers, doctors, and so on, and over half is market rate.

NR: What impact did you want to achieve or have on the built environment rather than just as a developer of standardized buildings? Do you have an interest in innovative design, for example, and do you want to achieve that in the marketplace?

RM: At the beginning, I didn't know the answer to that question. I knew that it was inefficient in many ways for a building to be built without the builder understanding or being involved in the process of conception. But I soon started to work with architects such as Edward Cullinan, and in seeing his projects such as schools and residential accommodations for special-needs kids, I started to realize that buildings and the environment around them have an influence on us. I had always seen it from the very technical point of view—can you get the goods in and out, retail square feet—as numbers. But now that has changed. I think that buildings can make a difference by integrating the conception, design, and the environment. It is much bigger than I even imagined.

NR: How do you educate your whole team about design, because I didn't notice the word *design* in your principles.

RM: In the Kings Cross project we have 50 new buildings and one million square feet of heritage buildings. Most of the buildings should be good, well-designed, "ordinary" buildings. We do need gems, whether they become iconic buildings on an international stage or not. I would be disappointed if we didn't have gems, but it wouldn't be a disaster of a place if there were not a story. There are of course many fine original buildings and if the uses are correct and the public spaces good, it will be a great place to be. If we have a place for people, the gems will be a bonus. We are now just working at a sketch level with about twenty architects, and another twenty have contributed in a design charrette.

NR: Have you taught before? What is your interest in teaching?

RM: I have taught gliding for twenty years. People came back for that, so they must have liked it or me as a teacher. I think it will be interesting for the students, as we are straight-talking developers who have a passion and knowledge about architecture and public space. We are pragmatic and call a spade, a spade. Also, I like to learn from everyone.

1. Porphyrios Associates, Three Brindleyplace, Birmingham, England, (c) Porphyrios Associates.
2. Kings Cross Central today. Courtesy Argent Group PLC.
3. Kings Cross Central, London, proposed massing plan. Courtesy Argent Group PLC.

Ali Rahim

1.

Ali Rahim is the spring 2007 Louis I. Kahn Visiting Assistant Professor and will teach an advanced studio and offer a seminar, Elegance in Architecture. He also gave the lecture "Catalytic Formations" on January 18 at Yale. He was interviewed for *Constructs* by Mark Gage ('01), assistant professor at Yale.

Mark Gage: Your office is named Contemporary Architecture Practice, and the two issues of *AD* that you edited, "Contemporary Processes in Architecture" (2000) and "Contemporary Techniques in Architecture" (2002), also share the common term *contemporary*. How do you situate your work and publications relative to a distinction between what might be called the merely new and the truly contemporary?
Ali Rahim: I do not believe in the "new." I'm not one who thinks that everything we do is new. It's not. I believe in a lineage of thought where architectural practices adapt with new technologies, techniques, and tools. In the book *Catalytic Formations*, I name practices that are able to adapt themselves to the current modes of production as technological practices. Contemporary practices, in the shift from the mechanical to the electronic age, start to operate with these new conditions, and these conditions in turn influence the way one thinks about architecture. "Contemporary" is such that the practice can shift and adapt itself as it moves through time, continually renewing its techniques.
MG: What lineage do you see your practice being part of? Are there specific practitioners that were contemporary in their own time in the same way that you are aspiring to be contemporary?
AR: The Eameses were incredibly contemporary. They took their research into wood splints for the Navy and applied it to their wood furniture designs. Obviously that had a different trajectory, from woods into plastics, but their office became instrumental in how to redefine production and the use of components. They also redefined how people behaved since, until then, people were afraid to sit on very thin surfaces. When the chaise came out, people didn't believe it could hold their weight.
MG: It's ironic that most of the Eameses' innovations were done at more of an industrial design scale than an architectural one. It is similar today in that it's easy to produce digitally enabled forms—only at this smaller scale, with CNC milling, laser cutting, or 3-D printing. Full-scale architectural production of digitally enabled forms is still, with few exceptions, elusive. Where do you situate your work, between wanting to be influential at the smaller, more limited scale of techniques, materials, and details—like the Eameses—versus being influential at the larger architectural scale?
AR: We are much more interested in building, although ideas can be tested at all scales of work. We have been developing technologies using robotics to negate the process of going from a negative to a positive, as in CNC milling, and are moving toward a process where we can go straight to a complexly curved, positive surface. We are working with a company in Guangdong, China, on this research and are able to produce the same molded surface for a tenth the price that we would in the United States. The technology we are developing is starting to operate at larger scales, which will alleviate some of the pressure of producing our work at the scale of interior design. The architect now is involved in the design process as well as the manufacturing of buildings; this is the only way to make something that is not familiar to the construction industry cost-effective. The rippling back of construction logics into the designs is what I refer to as "feedback" in *Catalytic Formations.*
MG: How does this idea of feedback actually operate in your projects? What type of feedback and from where, and how does it re-inform the design?
AR: We use dynamic systems, thinking to produce trajectories for the development of our projects. As it moves through the design process, feedback is incorporated at the scale of the generative algorithm. Clients, fabrication, and assembly are all incorporated into the development of the trajectory of the final design. If you look at any one of our projects in the early versus the latter phases, they're very different. The formal capacities are flexible enough to integrate all that is required in architecture: seams, joints, and materials that are related to how it is built, including the cost of materials and labor.
MG: Architects have always had to deal with projects in terms of how they're built, labor costs, materials, and client influences. How is this feedback different from what architects have engaged in historically? Is the contemporary part of that feedback in the digital machining of formal components?
AR: In *Catalytic Formations*, I write about how these projects have the potential to feed forward by affecting the way other projects are built, and that feeds back into the development of new techniques—once again, exactly the same diagram as dynamical systems. So the technologies we use do need to be digital, as that is the milieu of our time, and as we develop techniques to make the technologies more useful, we need to be innovative. We use laser cutting, milling, and molding techniques to achieve our goals. Once we have developed and exhausted newer techniques for the construction of projects, we—and I obviously mean a collective of all the practices interested in digital technology for innovative architectural practice—will hopefully pressure the technologies to develop further, requiring development of new techniques for these technologies. And so goes the feedback loop.
MG: In "Elegance," yet another issue of *AD* that you co-edited with Hina Jamelle, you deal more with the ambition to produce elegance. I am also interested in this topic, but wonder how you see the notion of feedback related to this new direction toward elegance?
AR: In the introductory article, "Elegance in the Age of Digital Technique," we position the maturation of digital practices in projects being built, which feeds back new knowledge and methods to other digital practices, in addition to unleashing an aesthetic sensibility that we term "elegance." The second article describes our design for Migrating Coastlines, a residential tower in Dubai whose complex architecture is imbued with an elegant sensibility. Through use of the digital algorithm we developed interrelated models that allow for the collaboration of different industries and deliver the design within a construction budget. It is a design strategy that has assisted in the development and implementation of innovative marketing techniques for the sale of individual apartments—another scale of feedback.
MG: Latent in the way you describe elegance is an architectural ambition that seems to precede the project—that is to say, you have an interest in producing something specific as opposed to "finding" a project in the outcome of a computer-generated script, which is increasingly popular as a mode of design. It's a pivotal moment in our profession, where there are these two camps, among others. It also seems that some visually based—dare I say "aesthetic"—idea is providing some of these ambitions, from your work on elegance to Hernan Diaz-Alonso's investigation into the horrific. Although our generation does seem to have a problem with the reemerging topic of aesthetics, some people do not like the idea that architecture is predicated on an idea with historical baggage, such as elegance. How does one respond to this?
AR: It's difficult to provide an easy answer to your question. We selected the term *elegance* because there is no architectural baggage attached to it, unlike "beauty." Elegance, for us, comes from a mastery of digital technique and architectural design with all its inherent complexities. Only with a mastery of the discipline and technique can one raise an aesthetic discourse. The form-finding you allude to is an interesting point: that's why there is an important shift away from scientifically reliant processes for the generation of architectural form.

The architects that we included in the book are all practicing and are in the process of building. Since the designs are now "out there" after fifteen years of experimentation, we can discuss buildings as a result of these complex ideas. Elegance is bridging experimentation with practice while making it accessible outside of the academy.
MG: Your books are heavily illustrated, and you're becoming known for these highly realistic renderings. Is that imagery part of making this idea accessible to the public?
AR: All of the digital models we're building are constructed to reflect what the projects will be. It is an important tool in articulating the precision that is needed to produce architecture that is not immediately recognizable. The renderings demonstrate what we are trying to achieve, and they are useful in convincing clients about our ideas. It is very difficult to pick up nuances in the form of our work, particularly in the digital realm, but we are trying to make this evident. If you can pick this up in the image, then our rendering technique has been successful.
MG: What you are teaching in your Yale studio in the upcoming semester?
AR: I am teaching a studio to design a high-rise in Dubai. I'm fascinated with skyscrapers and the potential they bring forward in their design. We will apply specific digital techniques, the mastery of which will unleash a new sensibility for each student. There are some real issues in Dubai. New laws dealing with land ownership and foreign investment have caused high-rises to proliferate. To keep up with development, the zoning regulations keep changing as well. Buildings that started construction in 2003 were altered during construction as zoning regulations changed in 2005. The elongation of a particular part of the original design reaches the new zoning heights. We will develop a project on Sheikh Zayed Road, which connects Dubai to Abu Dhabi, the two largest emirates in the U.A.E. The local municipality in Dubai is currently developing large-scale projects, from an underwater hotel to a ski slope in the middle of the desert. In addition, there are shopping malls in which IKEA is only a small component, in essence a boutique store—imagine that! The city is developing rapidly, and for architects it is a very interesting moment, indeed.

1. Ali Rahim, rendering of commercial office tower high-rise project, Dubai, 2008.

Eero Saarinen

1.

Eero Saarinen: Shaping the Future **premiered in Helsinki from October 7 to December 6, 2006. A major book of the same name edited by Donald Albrecht and Eeva-Liisa Pelkonen was published by Yale University Press in November 2006. The following two articles review the exhibition and then the book.**

Architect of the Media Age

During his lifetime Eero Saarinen (1910–1961) was of great interest to fellow Finns. His career was closely followed with both admiration and disapproval: "Grown-up children playing with tensions that they can't control," criticized Alvar Aalto in 1958, referring to Saarinen's expressive forms for the TWA Terminal at JFK airport. The architect's projects were a conundrum for his compatriots. While father, Eliel, had created a series of ruggedly romantic buildings in Finland that were seen as national symbols, Eero's projects felt "American." How had Eliel's Arts and Crafts spirit been transformed into Eero's interpretations of the era of mass production and jet planes?

The galleries of the Nordic neoclassical Helsinki Kunsthalle offered a fantastic framework for proceeding through the intense chronology of Saarinen's short life/work. The total project was funded by the Getty Foundation, the Finnish Cultural Institute, the Museum of Finish Architecture, and Assa Abloy, among others, and will come to the Yale Art Gallery in 2010.

Saarinen's work, often characterized as theatrical and of uneven quality, has previously eluded thorough investigation. Its popularity with the general public has clashed with the aloof attitude of the critics, who have accused Saarinen of creating a new style for every commission. As displayed in Helsinki, the drama and tension of the exhibition designed by Roy Mänttäri thus suits its subject, with large individual pictures placed alongside smaller ones and others arranged in a series of strong colors contrasting vertical and horizontal. Also included are impressive architectural models, some such as one of the St. Louis Arch centered along the main axis of the space are original. Architectural drawings and digital screens show documentary and promotional films as well as Yale students' analytical digital animations of selected buildings, all of which enhance the understanding of the complexity of Saarinen's work.

The exhibition begins with a section on Saarinen's life and persona, presented through ephemera such as newspaper clippings, photographs, paintings, and drawings that tell the story of his family's immigration to the United States and the inspiring atmosphere of Cranbrook based on the mythical work of the artist's atelier at Hvitträsk. Video interviews with key coworkers Kevin Roche and Florence Knoll show his important but sometimes difficult relationships with friends and professional colleagues.

The largest part of the exhibition focused on Saarinen's designs for postwar America during the optimistic atmosphere and new wealth of the United States and its elevated status in world politics. A display of residential projects showed his studies from the 1940s and 1950s for industrially produced small houses, such as the Demountable Space Project, hung from a mast with steel cables; the metallic Unfolding House, designed in the spirit of Jean Prouvé, and the two Case Study Houses designed with the Eameses. A series of private houses demonstrated Saarinen's spatial investigations as seen in the flowing spaces of the Miller House, shown in a film animation by Timothy Newton, which follows the movement of sunlight across the space.

Saarinen's community and campus projects are seen in the next section of the exhibition with a display of sports buildings, chapels, and theaters such as Yale's Ingalls Hockey Rink (1958) and the controversial Morse & Stiles Colleges (1958–62). The project details are understood in the display of a mock-up of its famous "stone wall without masons"—the brick-clad concrete Kresge Chapel at MIT (1949–50). Showing the full range of Saarinen's work from smallest to largest scale, the exhibit includes his furniture design, which display a trajectory from the Arts and Crafts style of Cranbrook in his father's spirit, to Modernist steel tube chairs as well as those experimentations with new materials of glass fiber and foam with Charles Eames. His Knoll-produced furniture, including the Womb Chair and the Pedestal Furniture Series, have become icons of mid-century Modernism. The exhibition theme, "Designing for Business," highlights Saarinen's projects for major American corporations—whom he referred to as "co-creators," inspiring them to realize impressive, large-scale schemes. Saarinen's clients were a veritable "who's who" of postwar American influence.

Saarinen's interest in materials and process resulted in his extensive use of full-scale mock-ups. For example, the external envelop of IBM Manufacturing and Training Center (1956–58), in Rochester, Minnesota, was "the world's thinnest exterior wall panel"; part of the wall was reconstructed in full-scale in the exhibition: the color of the porcelain-enameled aluminum panels was a syncopated combination of two shades of blue. His concern for worker satisfaction was evident in projects such as the IBM Research Center, in Yorktown Heights, New York (1957–61), for which workers were interviewed about their spatial needs. The corporate workplace is juxtaposed with a presentation of Saarinen's own office, in Bloomfield Hills, Michigan, which a Finnish colleague described as showing the "whole mess" of preparing designs, including many iterations of large working models.

The exploration of a material's limits was emphasized in the architect's desire to create a strong image that often surpassed the requirements of structural logic. The St. Louis Arch construction drawings show how the elegant stainless-steel structure is actually supported by concrete. Or, in the TWA Terminal, the thin concrete shell was an illusion: the supporting pentagon was hidden in the center of the structure. Thus, Saarinen distanced himself from the strict demands of Modernism concerning the primariness of structure (he has been called the first Post-Modernist architect).

The exhibition culminates with the section "Shaping an American Identity," highlighting the now iconic and symbolic projects. The "perfect catenary" of the Gateway Arch spans Saarinen's entire career, from the competition victory in 1948 to the breathtaking moment in 1965 when the last piece of the arch fell into place. Charles Guggenheim's film capturing its construction was shown in the exhibition. In a film about the opening of the TWA terminal, one can see how the arches, bridges, and levels of the lobby kinetically display the flow of passengers.

Shaping the Future, a *Gesamtkunstwerk* itself, continues to provoke questions. Did Saarinen create a style, or did he escape the concept of style? Was his career cut short in the middle only to be continued by the architects of the computer era? Ultimately, the question of Saarinen's nationality is obvious: Saarinen was an American architect who inherited his Finnish father's vision of the building as a *Gesamtkunstwerk.*

—Aino Niskanen
Niskanen is professor of architectural history at Helsinki University of Technology.

Shaping the Future

Shaping the Future, a carefully researched, exceptionally well-illustrated and wide-ranging book on one of America's best modern architects, is a welcome contribution to the rapidly growing literature on this previously understudied subject. Based on material in the newly acquired Saarinen office archives by Yale, it contains the first comprehensive catalog of the architect's prodigious and extraordinary design works from 1925 until his death in 1961. But the essays and other material included here provide us with much of the social and technical context of Saarinen's many thought-provoking projects and allow for a fuller appreciation of his achievements, all created well before digital technologies made such form-making far easier to detail and build.

Although some of the major works presented here are now canonical monuments of Modernism, this status does not ensure that they will be valued in the future. Saarinen's Bell Labs, in Holmdel, New Jersey, one of the key centers of postwar American technical innovation, may well soon disappear, as his Women's Dormitory at the University of Chicago already has. (The precarious existence of many Modernist masterworks perhaps explains the use of the past tense in the catalog's descriptions of the buildings.) While the situation may seem different from within the world of architectural education, masterworks such as these are now often the object of hopeless historic preservation campaigns rather than being revered landmarks. Perhaps it will at least place Saarinen properly on par with other great American architects.

In the 1950s, Saarinen was distrusted by the East Coast architectural establishment as an overly slick and commercial figure and was viewed less positively than Ludwig Mies van der Rohe or Louis Kahn, who were understood at the time to be more in tune with higher cultural values. This question of his dubious critical reception is addressed right at the start of the book by Vincent Scully, himself once one of the skeptics, and is touched upon by one of the co-editors, Eeva-Liisa Pelkonen, who has clearly expended immense energy in making this project a reality. The next three essays move on to situate him within the various contexts in which his work took place. Cranbrook archivist Mark Coir offers a succinct account of the complex familial and cultural world of Eliel Saarinen's once well-known pre-war practice and teaching at the Cranbrook Academy of Art, founded in 1927, where his son Eero taught in the late 1930s. The younger Saarinen is then presented by Donald Albrecht in his more familiar guise as a postwar celebrity architect whose works shaped the architectural form of corporate America at its peak. Will Miller offers a precise account of the intertwined family and professional connections between Saarinen and J. Irwin Miller, the visionary entrepreneur who made Columbus, Indiana, a model of corporate and civic architectural patronage where major Saarinen works (such as his First Christian Church) are still extraordinarily well maintained, appreciated, and used.

Other essayists offer more theoretical considerations of Saarinen's work. Reinhold Martin discusses the disarmingly simple question "What Is a Material?" in relation to Saarinen's major projects. Pelkonen's and Sandy Isenstadt's erudite essays examine the unavoidable issue of form and its uses in Saarinen's prodigious career. These are followed by in-depth considerations of four projects: the St. Louis Arch, by Helene Lipstadt; the GM Technical Center; the Miller House, in Columbus; and the Ingalls Rink at Yale, one of the architect's most iconic and admired buildings. Seven other short texts look at various categories of Saarinen's massive design output, including furniture, houses, churches, corporate headquarters, embassies, airports, and campus plans. Alan Plattus' essay on this last topic is exemplary in its presentation of new archival material, which includes some rarely discussed works such as the campus at Drake University, in Des Moines, Iowa, designed with Eliel, as well as his more familiar, mature planning projects for the University of Michigan, the University of Chicago, Brandeis, and Yale. Appreciations written by former Saarinen associates Cesar Pelli, Kevin Roche, Harold Roth, and Robert Venturi follow.

Interpreting Saarinen in the present remains difficult. Few can fail to recognize his incredible formal and material virtuosity, but certainly the American midcentury corporate and institutional contexts in which he thrived more often raise suspicion rather than admiration. As a result, there is the question of whether simply celebrating his work, as some other recent publications have done, is enough. This project's effort to situate Saarinen's work historically from multiple viewpoints without diminishing its importance is admirable and will make it known to a much wider audience. It might even keep a few more of his buildings from being torn down.

—Eric Mumford
Mumford is associate professor and director of the Urban Design Program at Washington University, in St. Louis.

1. Shaping the Future*, in Helsinki, 2006. Photograph by Roy Mänttäri.*

Recasting Labor in Architecture

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The symposium, "Building (in) the Future: Recasting Labor in Architecture" was held from October 27 to 29, 2006, to discuss all aspects of new technologies and the relationship to labor in architecture today. Supported in part by Autodesk Inc., it opened with a keynote talk from Kenneth Frampton.

In October, Peggy Deamer and Phillip Bernstein ('83) organized "Building (in) the Future: Recasting Labor in Architecture," a weekend symposium that examined the ways in which new technologies are reconfiguring professional relationships in architecture and how, as a consequence, the structure of projects and the roles of the various participants, from designer to builder to laborer, is changing. Deamer and Bernstein's collaboration was a provocative one—she a longtime design critic and professor of contemporary theory; he an executive at Autodesk, a former associate principal at Cesar Pelli & Associates, and for 18 years Yale's lecturer in professional practice. Speakers came from a broad array of backgrounds, including architectural historians and theorists like Kenneth Frampton, Barry Bergdoll, and Reinhold Martin; Princeton's sociologist of architectural culture, Robert Gutman; young practitioners like Joshua Prince-Ramus, of REX, and Coren Sharples, of SHoP, and an impressive lineup of contractors, fabricators, attorneys, and developers.

As Deamer mentioned in her opening remarks, her partnership with Bernstein is timely given recent discussions about "postcriticality," an interest among some theorists in removing barriers between theory and building by reformulating the idea of "critical practice," with all its related notions of resistance and negation. In part following the rise of the sorts of technology discussed in the symposium—like building information modeling (BIM), which potentially redefines the boundary between architect and builder—these theorists have found a new interest in the world of architectural production, linking the products and motives of the practitioner and the critic in new ways. That's the optimistic reading at least; skeptics fear something more like "noncriticality," a sort of easy retreat into anti-intellectualism. The symposium was an example of these shifting sands, with the discussion swinging between excitement over the possibilities of digital technology and a desire to gain a historical theoretical perspective.

Deamer provided a useful summary of the symposium in her introduction, as follows:

> 1) The architect designs something with attention to detail, imagining the process of it coming together—"Craft and Design"; 2) she figures out how to enhance and share these design decisions with others—"Information Sharing"; 3) she structures the office to process, synthesize, and manage this information inside the office—"The Organization of Labor: Architecture"; 4) she guides her firm into contractual relationships with other organizations outside the office—contractors, construction managers, subcontractors, fabricators, lawyers—to turn this information into a building—"The Organization of Labor: Construction"; 5) she wonders whether she can't market all this intelligence so it isn't wasted on a single product—"The Market", and 6) then (maybe) she wonders what it all meant— "The Big Picture".

Kenneth Frampton's keynote address, "Intention, Craft, and Rationality," was prophetic in its characterization of the ideological conflicts that would arise in the Saturday and Sunday sessions, both in terms of a "techno-euphoria," which defined much of the discussion, and in potential tactics for mitigating its influence. Frampton, who has focused his attention on the history and theory of making buildings amid Columbia University's fascination with paperless studios, opened by reviewing the symposium's program and noting, as is the case with much discourse in this age of technological change, a heavy focus on process. While Frampton conceded that new technologies are transforming the building industry so that an interest by critics and designers on process is understandable, he asserted that this "is only apposite if we bear in mind, from beginning to end, the relationship between means and ends and so avoid the aporia in which means determines ends." In other words, while process is important, the results of a process—its products—must not be ignored. Simply because new technologies make any form possible, not every form or space is culturally justifiable. An obsession with the representational capacity of digital technologies and the forms they can yield short-circuits the critical process, in effect severing the product from the place it inhabits—just "one more freestanding aesthetic object," indifferent to its surroundings, both topographical and cultural.

Frampton went on to discuss Hannah Arendt's philosophical distinction between labor and work, as well as the collaborative process of teamwork, promoting craft as a potential check on this sort of uncritical form-making. He cited the work of the Renzo Piano Building Workshop as an example of a modern practice that—whatever tools it uses, be they computational or otherwise—in Piano's words, "does not separate the work of the mind from the work of the hand." Earlier in the afternoon the symposium's first session, "Craft and Design," discussed just this, bringing together several designers who use sophisticated awareness of fabrication technologies to exert more control over the products of their designs, locating the idea of craft in new places like software scripts and high-tech milling machines.

Klaus Bollinger, structural engineer and partner in the Frankfurt-based firm Bollinger + Grohmann, in discussing his collaborations with architectural firms such as Coop Himmelb(l)au and Dominique Perrault, emphasized the point that instead of making craft obsolete, new construction technologies tended to increase the demand for highly skilled workers because the unusual forms are one-offs, requiring them to learn and even invent new methods of assembly. The next two speakers, Branko Kolarevic, a technologist from Ball State University, and Scott Marble, of New York–based architects Marble Fairbanks and Columbia University, embraced their work's reliance on the skills and intelligence of workers in the field. They both cited the writer David Pye, who defined craft as "a process in which the quality of the result is in the hands of the person making it." This implies a risk for the designer, who, as has always been the case, cedes control to the workers who assemble the product. For Marble, this is a productive risk, a form of collaboration that enriches the work by including the human hand in the digital process. Kolarevic noted that using parametric technologies, which embed the design within software scripts written by the architect, also introduces an element of risk, because they make outcomes unpredictable. James Carpenter—an artist and fabricator who specializes in glass, with which he has created large, site-specific installations—was a bit puzzled by this connection of craft and risk. To him, the highly skilled craftsperson's sophisticated understanding of a material is, rather, the best way to avoid risk. He argued that knowing a material and how to work with it, even digitally, expresses a working knowledge lost long ago by desk-bound architects.

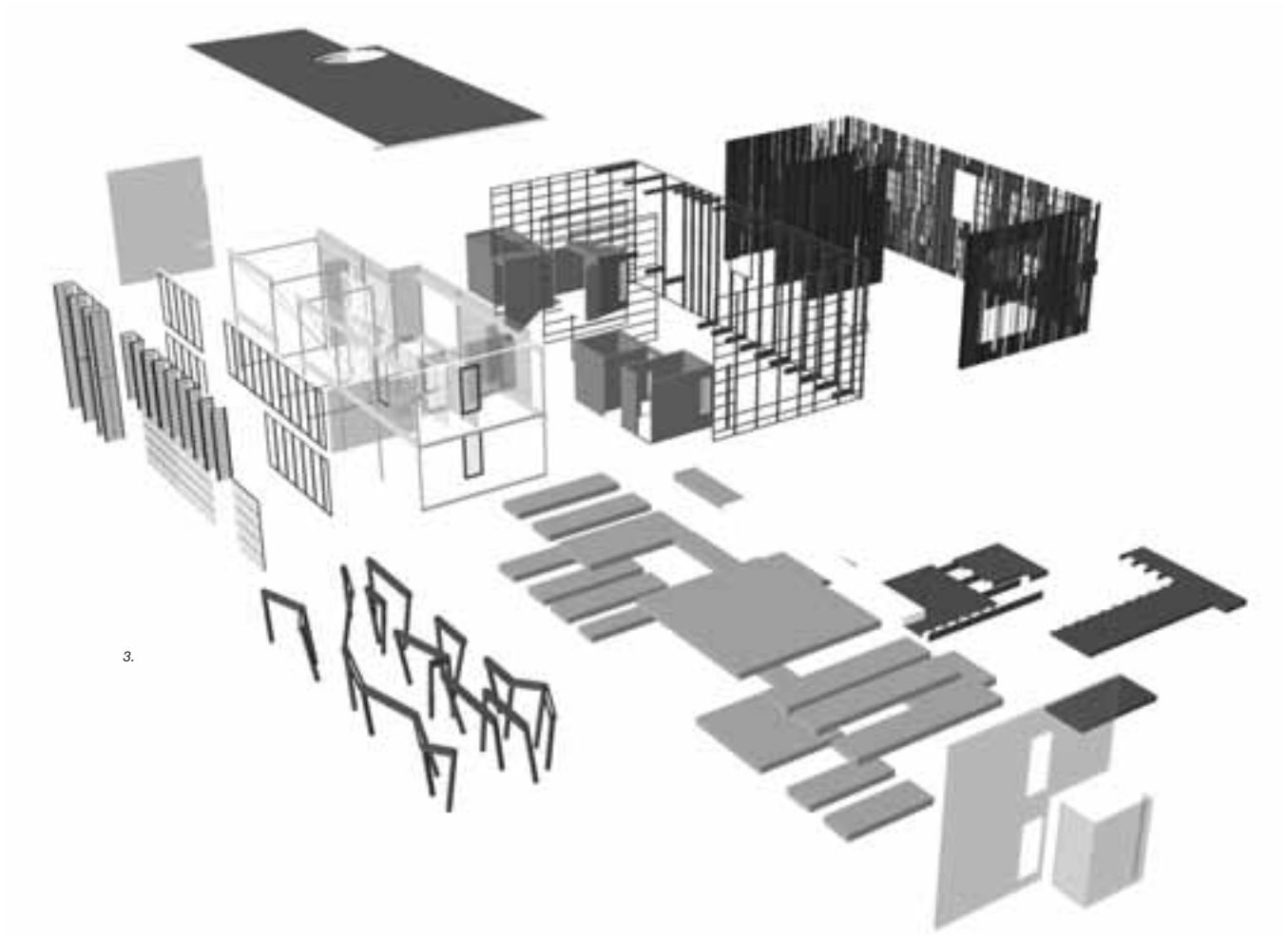
On Saturday the symposium trained its sights on larger-scale practices and projects, and speakers repeatedly argued that the standard process by which architecture is built today suffers from, as Bernstein characterized it, "a lingering dysfunctionality." Fundamental changes in how buildings are designed, how the developing design is communicated, and how the finished design is executed are increasingly required to realize innovative and economically viable designs. The first session, "Information Sharing," began with William Zahner, CEO of Zahner Architectural Metals, who spoke about how his company has fully embraced BIM technology to achieve the high level of precision required by its clients, most famously Frank Gehry and Herzog & de Meuron. Autodesk's program Revit allows each member of its design and construction team to work on a shared 3-D model, with each party's design information embedded in it, from plans and sections to building systems to cost and revenue information. Zahner works directly on his clients' BIM models to create milling patterns, resulting in a precision that dramatically exceeds that of other trades, such as the relatively large margins of error allowed within the structural steel industry. Zahner even has taken over the erection of structural steel simply to ensure the performance of their core product: custom metal cladding.

If Zahner offered a report from the trenches of current production realities, Yale's Hilary Sample supplied a projective view of how communication between collaborators, clients, and the general public might be increased by allowing for a freer exchange of information through the use of intra- and extranets on the Web. Paralleling Sample, Kent Larson, of MIT's Open Source Building Alliance, proposed looking to the Web to increase the architect's involvement in residential projects in the United States by providing what he termed "design engines" to allow consumers to assemble their own designs in a manner similar to the way consumers can assemble their own computers through Dell's Web site. Attorney Chris Noble provided a cautionary end to this session, pointing out that the profession's standard contracts are inadequate, based as they are on risk-avoidance rather than good design, and that emerging new relationships have the potential to make them even less so. Building on this, Cristiano Ceccato, director of research and consulting at Gehry Technologies, responded that to embrace these new forms of information sharing, it is increasingly necessary to establish and encourage these nonstandard relationships.

The next session, "The Organization of Labor: Architecture," brought a series of young professionals to the lectern, each of whom is critically engaged in defining the building industry's changing structure. Joshua Prince-Ramus, who established the office REX after having worked for Rem Koolhaas's Office for Metropolitan Architecture (OMA), provided a compelling portrait of a practice that is leveraging new technologies and emerging professional structures to reclaim authority for architects. Drawing on his experience running OMA's Seattle Public Library project, he described the current state of the profession as one in which designers consciously avoid liability and thus contribute to an ever-widening schism between design and execution. Over the past twenty-five years, the role of project manager has grown more important, nearly becoming the central player in the architect/owner/contractor relationship. Prince-Ramus called for the architectural profession to take this role back from the contractor in exchange for increased liability, managing the risk acquired with the specialized knowledge base that comes from new collaborative relationships, often the result of new technologies. He noted that OMA integrates the roles of "design architect" and "executive architect," so that the executive architect has a role throughout the initial design stages of a project, just as the design architect remains involved through the construction phase of a project. The result hoped for is the creation of what was once standard: a single integrated architectural team developing a project from beginning to end.

According to Prince-Ramus, the Seattle Public Library was a demonstration of this concept, its realization possible only after the design team had a clear understanding of the regulatory, professional, and budgetary contexts of the project, then finding opportunities for design within them. The project's iconic diamond-grid skin system resulted not from an aesthetic desire but as the only viable response to a complex set of performance and economic requirements. One of OMA's collaborators on the "diagrid" was the next speaker, Marc Simmons, who worked on the project as part of Dewhurst MacFarlane and subsequently started the consulting firm Front Inc. Although his company is ostensibly a façade consultant, Front employs a range of professionals, from engineers and managers to specialists in digital media, as a new type of "chameleonlike" consultant/collaborator who can fully embrace the mind-set and agenda of the lead designer, morphing his broad skill set to fit changing circumstances and "inhabit the entire process" through inventive use of technology.

With the rising sophistication of digital fabrication, architects are taking increased control of the means and methods of construction, which has typically been the realm of the contractor. Few firms have explored this territory more than the New York firm SHoP, represented at the symposium by one of its founding



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partners, Coren Sharples, who described how in-house research becomes essential at a practice like SHoP, which actively colonizes parts of the building process not traditionally reserved for architects and thus increases its exposure to risk in order to gain more creative control to create places of meaning and sensitive design—something which Frampton implied firms like hers ignore. Often small projects are used to test new design and fabrication strategies that get refined for use on large projects. One such project—"small in scale but large in scope"—is the Camera Obscura at Mitchell Park, in Greenport, New York, which tested the feasibility of executing a project entirely from a computer model. The model was translated directly into shop drawings and instructions for assembly on the site. The only traditional architectural drawings produced were those required by the city for review.

The final speaker of the session was attorney Howard Ashcroft, a litigator who specializes in construction industry law. Echoing Noble, he acknowledged that the current legal structures regulating architecture and construction are woefully inadequate and that the growing presence of digital technology is making the problem worse. The best hope, in lieu of new precedents or statutes, is the creation of mutually beneficial risk-management strategies and profit sharing among the stakeholders of a project, from which more formal, universally applicable relationships might arise.

As moderator, Phil Bernstein summed up the session by characterizing the speakers—young and cutting-edge—as surprisingly pragmatic because they have adopted emerging technologies and embraced new forms of practice not for their novelty but because they are the best tools for realizing their work.

The third and final session of the day, "The Organization of Labor: Construction," sought to discuss the same topics as the previous one but from the perspective of construction as opposed to design. However, the speakers were an odd bunch—a historian, a practitioner, an academic, and a contractor—and the session ended up lacking coherence (it turned out that this was the result of last-minute schedule changes). Contractor Rodd Merchant, of J. E. Dunn Construction, in Colorado, an executive in charge of integrating BIM technology into his firm's business, described how BIM can be used by contractors to lower costs and increase profits. Fleshing this out quantitatively was John Taylor, a civil engineer from the University of Texas at Austin, who presented research on the penetration of BIM technology into the construction industry and evidence of its capacity to increase productivity. Merchant's talk, along with comments he made later betraying his belief that architecture is largely irrelevant to the success of his business, provided a stark illustration that despite the collaborative promise of new technologies, the priorities of builders and architects can remain stubbornly at odds. In closing remarks to the symposium and elsewhere, Gutman expressed a similar skepticism, wondering aloud whether the new technologies are just a new way for architects to arrive at the same old culturally and economically determined dilemmas.

Barry Bergdoll, art history professor at Columbia University and soon to be director of the Architecture and Design Department at the Museum of Modern Art, reviewed the history of labor in architecture beginning with Viollet-le-Duc and ending with the well-known prefabricated housing experiments of Breuer and Gropius. Sheila Kennedy, of Kennedy Violich Architecture, in Boston, talked about the development of MatX, a new interdisciplinary arm of her firm dedicated to research in material technology. While most speakers Saturday focused on new technologies in building construction, Kennedy was an example of a practitioner who is using similar tools and strategies to expand an architecture practice into allied fields such as industrial and textile design.

Saturday evening's featured speaker was Italian historian Paolo Tombesi, whose lecture "On the Cultural Separation of Design Labor" analyzed the history of the division of labor within architecture firms, especially with regard to the collaborative demands of building production and how the structure of the office will need to be altered to take advantage of emerging technologies that are breaking down traditional hierarchies. The top-down Fordist production model is reinforced in architecture by standard contractual relationships that emphasize individual authorship over decentralized collaborative structures. Developing themes introduced by Frampton, Tombesi described how the disproportionate emphasis placed on the "designer" of a project undermines the true collaborative nature of architecture, inevitably leading to a culture in which architects focus on celebrity and style at the expense of substantive teamwork.

Sunday morning brought the fifth session, "The Market," moderated by James Timberlake, of Philadelphia-based Kieran Timberlake Architects, with a series of firsthand reports by professionals trying to take advantage of communication and fabrication technology to find new opportunities in the building industry. Each presenter addressed the tension between standardization and customization in trying to mass-produce homes, and each arrived at different solutions to the problem. (These examples could be seen on display concurrently at the Architecture Gallery exhibition *Some Assembly Required*.) The first was Ewa Magnusson, a retailer at BoKlok, a joint venture in manufactured housing by the retailer IKEA and the construction company Skanska. The company has produced about 3,000 units of housing in northern Europe since 1997, both as apartments and detached houses. Its strategy is to focus on the low end of the market, producing a limited set of house types with a modest number of customer options. Costs are kept low by prefabricating about 80 percent of each unit, as well as working with standardized manufacturing and shipping. The lack of customizability is offset by large quantities of market research and customer satisfaction surveys so that the limited designs hit their targets effectively. BoKlok is gaining momentum, but Magnusson said profitability is impeded by an entrenched building industry and regulatory context. That said, the modest modern homes are attractive and inexpensive, and it's hard to imagine that the company won't be as successful as its parents.

Next up was Rob Kelle, chief information officer for Standard Pacific Homes, America's eleventh-largest custom house builder. His title is indicative of the changes taking place in the building industry since as a specialist in information technology (and an education in urban studies), he has been tasked with applying new technologies to achieve a competitive advantage in a cooling market. Kelle's interest is the high-end American market, where customizability and a highly mutable construction technology in place (stick framing), his industry has been able to satisfy demand. But with the market forecast to be slow, Kelle's company is experimenting with mass production and prefabrication as ways to lower costs, even in the "custom home" market.

The last presenter was Charlie Lazor ('93) of Lazor Office, whose prefab FlatPak House (on exhibit in the gallery) is an attempt to do at the scale of architecture what his company Blu Dot has done so successfully with furniture: inexpensive, well-designed, mass-distributed, assemble-it-yourself modern products. Relative to the first two speakers, Lazor works at a small scale and has produced only a few houses to date, although he has recently partnered with the company Empyrean, which markets house designs nationally. Again the challenge has been to perfect the mix of standardization and customization and to find a profitable price point. In ordering a FlatPak House, customers can adjust a series of parameters to customize their house, resulting in multiple outcomes and locating the authorship of the house in a collaborative zone between designer and client.

It is trite to say that the more things change, the more they stay the same, but as the final session of the weekend, "The Big Picture," arrived, there was a growing sense that despite a true recasting of labor in architecture, the profession's various cliques and subcultures remain intact—still jockeying for territory or simply ignoring one another—and that perhaps the "lingering dysfunctionality" that Bernstein referred to might not be erased simply by making changes to the AIA documents. MIT's Mark Goulthorpe opened the session, showing images and animations of parametrically generated forms made from software written by students and fabricated from programs that can automatically translate the complex forms into machinable elements. Goulthorpe exuded a matter-of-fact faith in the triumph of digitally derived form, and he spoke about his parametrically generated twists as if their cultural relevance was obvious and uncontroversial. This was in contrast to the dry PowerPoint presentation of Véronique Blau, an earnest French academic who studies the organization of labor in the building industry of the European Union. It's architecture's unique glory that personalities like these can inhabit the same discussion, but it seems like dysfunctionality will be a given and even a productive one.

Enter John Nastasi, founder of the Product Architecture Lab at the Stevens Institute of Technology, in Hoboken, New Jersey. Started in 2004, the program brings together architects, engineers, and information technologists to study and develop new forms of digital collaboration and fabrication. Like Prince-Ramus and the founders of SHoP Architects, a sense of mission emanates from Nastasi, the sense that he's onto something big. The program at Stevens is growing rapidly, and a two-way stream of professionals and students are learning and working together on real projects, injecting the logics of parametric design, digital collaboration, and rapid prototyping into building projects around the world.

Despite the excited talk of progress, it would be wrong not to acknowledge something suspect, as Frampton did, about all this techno-euphoria, something soft at the core. After all, we've been told every day for the last eighty years or so that technology will deliver us to the promised land, whether it be with the help of dishwashers, wireless phones, or precision-guided missiles, and it's clear that the reality has been mixed. As the final speaker, Reinhold Martin, of Columbia, concluded, "Perhaps the most relevant question here—in response to which histories have yet to be written—has to do with the assumptions about historical progress and historical change that are made by the techno-deterministic, if not techno-triumphalist, version of history. ... In other words, what specifically is the historicity of our supposedly 'new' machines, 'new' materials, and 'new' forms of organization? Where have they come from and, more importantly, where are they going? On these and so many other questions, there is work to be done."

—Ted Whitten ('00) and J. Brantley Hightower.
Whitten works at Gray Organschi in New Haven and Hightower works at Lake/Flato Architects in San Antonio, Texas.

1, 2. Conference organizers, Peggy Deamer and Phillip Bernstein.
3. Kiernen Timberlake project for Loblolly House, using Autodesk's Revit software.

Team 10: Exhibition

1.

***Team 10: A Utopia of the Present*—on display at the Yale School of Architecture Gallery from September 5 to October 20, 2006—was organized by The Netherlands Architecture Institute and the faculty of architecture, Delft University of Architecture, and was curated by Suzanne Mulder.**

Team 10: A Utopia of the Present brings together for the first time documents, plans, photographs, and ephemera from 1953 into the late 1970s of the work of Team 10, a group of international architects formed at the end of the CIAM congresses in the 1950s. The exhibition's thematic sections sketch Team 10's increasingly complex developmental engagement with urbanism and city planning: "A New Approach," "The Great Number," "Aesthetics of Number," "Mobility, Growth, and Change," "Flexible Structures," "Participation," and "Collectivity/Identity." Eschewing a strict chronology of projects, these thematic sections make clear that most of Team 10's intellectual innovations were developed in the early years, the late 1950s and early 1960s, while the possibilities for testing these ideas in built forms, in the 1960s and 1970s, triggered revisions and reformulations.

Though the later written output of Team 10 members illustrates the different ways in which they outran its long reach, the "Charter of Athens," the outline of the functional city authored by Le Corbusier and others during the 1933 CIAM congress, (which took place on a cruise ship en route to Greece), was the putative founding document of Team 10. The Athens charter was a product of an entire generation of architects: Le Corbusier chief among them, but also Gropius, Sert, Giedion, and others, providing a way of thinking about architecture, urban planning, and the architect's role in it. Much more precise and fully defined than any early Team 10 document, the Athens charter was considered to be of such historical significance that it served as a model for the young group's goals even as they eschewed breaking into the previous generation's way of thinking or its belief in obsolescence. And although the beginning of Team 10 had no precise starting date or initial manifesto to lay out its ambitions, goals, and philosophy, it might be the most important (and possibly the last) effort to create an international grouping of architects united behind a common agenda. Just as the Athens charter was a document primarily intended to outline urban organization, so Team 10 was mainly concerned with questions of urbanism: infrastructure, housing, traffic, and a more complex organization of living together, not questions of style, form, or material. As a theoretical organ Team 10 is the last vestige of utopian architectural Modernism of the twentieth century, and as such the Athens charter is the founding text of architectural Modernism.

Indeed, the origins of Team 10, while seemingly radical, are squarely within the old structures of CIAM, the International Congress of Architects that Le Corbusier founded in 1928 with Helène de Mandrot, in La Sarraz, Switzerland; they met regularly until 1959. Before World War II CIAM served as the most important sounding board and incubator for architectural innovation and thought; however, its role and function waned after the war, as its founding members reached an age of architectural establishment and their work changed from revolutionary to normative. Team 10 grew out of disenchantment with the old CIAM by some younger members and initially began as the organizing committee for the tenth (hence the name) CIAM congress in Dubrovnik, in 1956. Its core members included Jaap Bakema and Aldo van Eyck from The Netherlands, Alison and Peter Smithson from England, Giancarlo de Carlo from Italy, and George Candilis and Shadrach Woods from France. After the dissolution of CIAM in 1959 and until the death of Jaap Bakema in 1981, Team 10 continued CIAM's model of meetings and maintained a steady correspondence, review process, and peer exchange, which might be considered the truest, or most lasting, impact of the group, albeit the most difficult to quantify in regard to its effect on the built environment. The mimeographs, books, and letters, often from Alison Smithson's hands, tell the story more than the models, plans, and drawings. And were it not for the fact that the members actually built quite a bit, Team 10 might be considered the most important school of thought on architecture and urban planning in the postwar period.

The exhibition begins with a selection of CIAM grids from the 1953 CIAM congress in Aix-en-Provence, where future members of Team 10 addressed issues of mass housing and city planning under the term *habitat*, meant to convey a shift in focus from the functional city of the Athens Charter to an understanding of urbanism that adequately expresses "vital human associations" (Alison Smithson). The "Habitation du plus grand nombre grid" (1953), by a group of Moroccan Modern architects (GAMMA), including Candilis and Woods, presented in images traditional Moroccan dwellings and the bidonville, an informal quarter of squatters and other recently moved settlers at the outskirts of the metropolis (not unlike today's favelas and shantytowns). In their "Urban Re-Identification Grid" (1953), the Smithsons presented a staggering roster of elements based on intimacy and density, from house to city, where each relates to the next on a "scale of association" and by a gradual expansion of intimate relations. Directed against concepts about sections of the city separated by function, urban re-identification aims at a mixing of functions, social spheres, classes, and building types. At the same time the urban-planning map shifts from the isolated units surrounded by green (Le Corbusier's model of the Unités d'Habitation, for example) to one where a meandering, fractal, or rhizomatic structure is encouraged, which at least in theory allows for a seemingly more organic or process-based growth. In "Aesthetics of Number," aspects of this process-oriented design concept are discussed in formal terms, as the principles of self-similarity of modular elements are applied to a "configurative" design method in, for instance, Aldo van Eyck's Municipal Orphanage in Amsterdam (1955–60). A number of plans show the first implementations of these concepts into large-scale schemes for specific urban areas (the Smithsons' competition for the Berlin capitol, 1957–58; Bakema's Kennemerland regional plan, 1959, and his design for the Tel Aviv city center, 1962; Candilis-Josic-Woods' design for the Frankfurt city center, 1963, and De Carlo's master plan for Urbino, 1964), which still reflect their belief in the possibility of massive urban development.

But as members of Team 10 began to implement their concepts in a number of large-scale buildings, such as the Smithsons' Robin Hood Gardens housing estate (1966–72), Candilis-Josic-Woods' Berlin Free University buildings (1963–73, my alma mater), and their Toulouse-Le Mirail urban extension (1961–71), typologies began to move away from monumental scale and planning procedures and started to incorporate an engagement with future residents. All based on ideas conceived in the 1950s, developed in the 1960s, and finally realized by the end of that decade and the early 1970s, these buildings put to the test a concept of planning and building that had already grown uneasy for some of the Team 10 members, as they began to criticize the welfare states that served as the projects' clients. The Toulouse–Le Mirail project had proven a disappointment, and only a small part of it—which was intended to grow denser and more labyrinthine over time—had been finished. As a result, complexes like the t'Hool housing estate in Eindhoven, The Netherlands, by Bakema (1962–72), and De Carlo's Villaggio Mateotti housing estate in Terni, Italy (1969–74), formally tended toward a tighter clustering of lower three- to four-story buildings and were designed after consultations with the residents before planning began. A similar principle of resident input and responsibility also guided the Byker housing estate in Newcastle-upon-Tyne, by Ralph Erskine (1968–81), the latest example of architecture included in the exhibition.

Team 10: A Utopia of the Present effectively presented the different phases and concerns of Team 10, bringing together a wide range of support material, from plans and drawings to photographs, typescripts, and publications, while suggesting that the issues under negotiation and discussion at various times, from the habitat to resident participation, developed not along a stringent chronology but in a complex nonlinear way that constantly intertwines concepts with their realizations. (To trace and understand the full complexity of Team 10's development and process, one must turn to the comprehensive book *Team 10, 1953–1981: In Search of a Utopia of the Present,* edited by Max Risselda and Dirk van den Heuvel, which charts all phases of Team 10's life cycle in great detail.) Happily, the exhibition brings to the fore the degree to which Team 10 continued a discussion about the purpose of architecture, city planning, and the architect's role in it that originated in the utopian ideals of prewar avant-gardes. Unlike American postwar Modernism, which centered on construction technologies and the individual dwelling (and the subdivision that became its grave), questions of technique and form were never at the center of Team 10 discussions. Rather, through insisting on the importance of architecture in the shaping of cities, the group kept alive a discussion of how to achieve the common good and extended the life cycle of architecture's (at least self-imagined) importance for society. And unlike the Post-Modernists who followed suit, Team 10 never surrendered the purity of their beliefs, even when they tried to take historical, even historicist, conditions into account. Ultimately, Team 10 may have done its most important job in keeping a discussion about the possibilities of architecture and urban planning alive, even if for some time its members were the only ones who engaged in it. In the history of architectural discourse, the products of Team 10 are the legitimate heirs to the Athens charter.

—Christian Rattemeyer

Christian Rattemeyer, an art historian, worked as a curator at Artists Space from 2003 to 2007. He is now associate curator in the Department of Drawings at the Museum of Modern Art in New York.

1. Team 10: A Utopia of the Present*, exhibition at the Yale School of Architecture Gallery, September 5 to October 20, 2006.*

Team 10: Symposium

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A symposium, "Team 10 Today," was held on September 21, 2006, in conjunction with the exhibition *Team 10: Utopia of the Present*. Organized by associate professor Keith Krumwiede, it brought together Yale faculty Peter de Bretteville and Alan Plattus and historians Ana Miljacki of Columbia University and Thomas Avermaete of the Delft University to discuss the influence of Team 10 in today's contemporary architecture culture.

The Venice Biennale is the nearest contemporary architects come to convening as an international group, presenting new work and discussing the crosscurrents buffeting the field of architectural thought and production. Each curated event in the Arsenale is freestanding and open to the public. In contrast, the series of closed meetings conducted around Europe by Team 10—from 1959 to the death of Jaap Bakema in 1981 and the last real meeting in Bonnieux, Italy, in 1977—come closer to a research guild. Team 10's history reads more as a school of schools, a group of like-minded architects getting together to critique one another. The exhibition on display at Yale and organized by the Netherlands Institute of Architecture, *Team 10: A Utopia of the Present* covered the group's legacy, while the symposium at Yale, "Team 10 Today," addressed the legacy of the key individuals and their respective contributions through the presentation of five talks on the subject.

As young architects, friends, partners, and educators, the group fluctuated well beyond the handful of core members. Minor participants, such as James Stirling, Kisho Kurakawa, Doshi, and Hans Hollein, are better known today among students than the official Team 10 architects such as Aldo Van Eyck, Giancarlo de Carlo, and perhaps even Alison and Peter Smithson. But, as suggested at the symposium by Peter de Bretteville of Yale, who had worked for De Carlo in the 1970s and chaired the first session of the symposium, what exerted a sustained influence on a younger generation of American architects was exposure to the members as teachers and employers, rather than their built works. The waning of awareness of this group has perhaps been abetted by the lack of a public presence so that even today, the knowledge of this work reverberates mostly through architects with academic ties.

Kenneth Frampton's talk "Structure, Identity and Existence in the Work of Team 10," on September 18, set up a framework for Thursday evening's event. Frampton's personal familiarity with almost all of the key architects involved, as well his book, *Modern Architecture: A Critical History*, has put him in a position to take on a regular reassessment of Team 10's relevance. He emphasized, "Team 10 was one of those last moments in Europe when it was still possible to envisage a more or less consciously planned pattern of sustainable land settlement and urbanization before the Pandora's box of late consumerist capitalism, driven by the universal ownership of the automobile, finally sealed the environmental fate of the species."

Thursday evening's symposium, moderated by Peter de Bretteville, included discussions by Thomas Avermaete, associate professor at the Delft University of Technology; Ana Miljacki, adjunct assistant professor at Columbia University; and Alan Plattus and Keith Krumwiede, of Yale, linking architecture and the dynamic postwar period—which ultimately settled into the "–isms" of the late 1970s to the 1990s. The speakers argued that most of what we see today in both formal and programmatic terms was first explored provocatively by the network of Team 10. Collectively, the five presentations made the case that Team 10 took on indeterminate and complex ethical concerns at their various meetings and struggled with transitioning from postwar recovery to consumerism in each of their respective countries. Many participants argued for two readings, one of Team 10's legacy, as disseminated in *AD*, *Forum*, and *Spacio e Società,* and the other as built work, reflecting the various personalities of each of the architects and their respective countries. The social reality of the commissions have had a deep, geographically dispersed influence that is increasingly felt as the global economy matures. Unfortunately, there wasn't time to hear the presenters debate the reasons why this work is less referenced than it should be in current discourse, the scholarship limited, and the remaining buildings less sought out by architectural tourists.

Krumwiede, de Bretteville, and Avermaete presented the work of the Smithsons, De Carlo, Aldo Van Eyck, and Candilis-Josic-Woods, who are each considered the most representative and connected to the Team 10 legacy. As a group of educators, many taught in the United States, for example, at Cornell in 1971 through O. M. Ungers, or James Stirling, and Shadrach Woods and De Carlo at Yale in the 1960s and 1970s, as well as in Europe at ILAUD, De Carlo's Siena-based think tank. Or, in atelier work settings such as the Candilis-Josic-Woods office, where many architects including Jean Nouvel and Charles Gwathmey gravitated. Yet for many younger faculty now teaching in architecture programs, who were children in the socially turbulent 1960s and graduate students in the 1980s, there are still a series of resonant ideas and buildings that give life to the current debate about the social program of architecture.

Historian Ana Miljacki presented in her talk, "Practicing Utopia", the relatively unknown Team 10 member and Polish architect Oskar Hansen and contended that a reassessment of his legacy is "just in time, as perhaps the most urgent task seems to be again the definition of the role of architects in today's world, whether this means that we are looking to articulate utopia again: as a projection, as a fantasy, as a sense of hopefulness about architecture's capacity to intervene or as a relentless struggle to do any or all of the above against overwhelming odds." Hansen, who was isolated in the Eastern bloc, can be related to the current climate of design globalization and ideas of "open architecture as an architecture that could accept change without obsolescence."

Panelists also discussed projects such as Ralph Erskine's Byker Wall, the Economist Building by the Smithsons, and the Wheels of Heaven Church by Van Eyck, each of which has a distinct image and ethos about scale and the social diagram. Projects such as the Berlin Free University have been restored and expanded, yet they have not become part of architectural pilgrimage itineraries. In the case of Urbino, Avermaete made the argument that the work played a role in the reemergence of history as an active force in design. When De Carlo dared to use arches, oval windows, and sloping roofs, it paved the way for a more complex formal vocabulary. The Team 10 struggle—to describe living a contemporary life while making links to the past—was the first break into Post-Modernity.

Certainly the early work of George Candilis and Shadrach Woods, as well as that of the Smithsons, shows the radical nature of their architecture. One can see a formal and ideological debt in the work of contemporary architects such as Calatrava and Foster. The soaring structural clarity of the Coventry Cathedral project in particular demonstrates that it was not just the Smithsons' provocative clothes and media savvy that generated interest in their work, but their talent for creating original form and their interpretation of the urban fabric. Avermaete also underscored how De Carlo's social form of architecture, such as Terni Housing, resulted in a richer functionalism, beloved by its residents and admired at the time by his colleagues. In parallel, Frampton noted his interest in Team 10's architecture despite the impossibility to recreate the social conditions to which it was responding. He noted the Conventry Cathedral project, *The Economist* building, and how their "Fold and Cluster houses were pre-consumerist by definition, along with the poetic, existential vision of Nigel Henderson. All of this was "before Guy Debord's narcissistic *Society of the Spectacle* finally took hold."

It is in housing that Team 10's legacy is most debated. Yale's Alan Plattus presented a rebuke to those who extolled the architectural virtues of projects by the Smithsons such as Robin Hood Housing and Bagnol sur Ceze—urban extensions and ideas about the Stem and the Open System that provided the fodder for much Team 10 discussion in the 1960s about how to translate program into urban fabric. Plattus reminded the audience of others, such as James Stirling, Kevin Lynch, and Gordon Cullen, who informed the urban design debate as it matured into a more elaborate, layered approach to urban situations. But the participants in Team 10, all from different countries, had diverse opportunities to achieve their social goals. Another part of Team 10's legacy is both the consciousness of an emerging environmental agenda and the continuity of issues such as the means of production of both building and urban form. Krumwiede, in his talk, "Thoughts on a Shiny New Brutalism," presented the Smithsons' Burrows Lea Farm, alluding to the flexibility in formal interpretation and even an emerging environmental layer, allowing the architects to clearly diverge from Modernist orthodoxy.

Krumwiede in showing the Smithsons' diagrammatic sketch sections, perspectival photo collages, and photographs by artist Nigel Henderson, (of the Golden Lane competition), clarified the influence of Team 10 on contemporary design. This graphic and conceptual break from CIAM's dogmatism seems to herald the individualism that became part of the new generation's work and a connection to more conceptual thinking. The schism also inspired an exchange between disciplines, as when Candilis and Woods analyzed slums in Moroccan cities, and makes sense of the adventure that was the Rem Koolhaas book *Delirious New York*, as well as AMO's research in Lagos. The idea that the vernacular was in fact a basis for architecture was something Le Corbusier had commented on and used, but not as the foundation of practice and of professional direction as Team 10 did.

The symposium did not suggest that architecture students are gravitating to understand this break with Modernist orthodoxy that has presaged the work of OMA, Aldo Rossi, Richard Rogers, and Norman Foster. But the scholarship emphasized an enduring legacy of theory based upon building and a sustained multinational search for an individual's place in global and economic hierarchies. Much of Team 10's built work was constructed in the vanguard of postwar reconstruction, and now it has been altered or eroded. It was hard to miss the implication through this concentrated look at the production of Team 10 that many of the current critics and architects, considering global practice and sustainable design, are part of its legacy.

—Claire Weisz
Weisz ('89) is a critic in architecture and partner in the New York firm Weisz + Yoes.

1. Team 10 announcing the "death" of CIAM at Otterlo in 1959 with Jan Bakema, Alison and Peter Smithson, Aldo Van Eyck, and Van Ginkel. Courtesy NAi.

Some Assembly Required

1.

The exhibition *Some Assembly Required: Contemporary Prefabricated Houses* was held at the School of Architecture Gallery from October 27, 2006, through February 2, 2007. Originally organized by the Walker Art Center in Minneapolis, the show was curated and designed by Andrew Blauvelt.

Some Assembly Required offers an important perspective on the growing popular interest in prefabricated housing as architects further define prefab. The exhibition attempts to define the most current state of prefab, primarily as it exists in the United States, where taste-making efforts by HG Television's DIY network and *Dwell* magazine are leading the charge. Focusing on how eight architects incorporate industrial production into the way they work, the exhibit offers a sampling of assembly systems and material choices. Not only are more of them developing prototypes independently, they are also working with manufacturers and producing media packages to promote their houses.

The exhibition includes not only photographs, models, renderings, and texts but also video interviews with architects, clients, and assemblers that illustrate prefab's new position with the consumer/homeowner. This point was proven by the steady stream of visitors to what has been one of the School of Architecture's best-attended exhibitions. The architectural projects are presented on the perimeter of the gallery with the central space set aside for a series of full-size prefabricated wall panels from Lazor Office FlatPak House (Charlie Lazor '93), with home furnishings on loan from Cassina and carpet tiles by Flor forming a library setting for visitors to study various publications on hand dealing with the subject of prefabrication.

Unlike the industry's first attempts to establish itself during and in the wake of World War II, contemporary prefab is defined as a taste as much as an altruism of affordable and rapidly deployed housing solutions. An interesting critical question arises in the attempt to categorize the projects in this exhibition: What is prefab today, and what is prefab anyway? The videos scattered throughout the gallery offer valuable insight into the dialogue between architects and clients along with occasional commentary from the builders.

It seems appropriate that the exhibition's first set of projects are the well-publicized houses by Resolution 4 architects, championed by *Dwell* magazine in an effort to define the contemporary vision of prefabricated houses and to prove that it could be relatively affordable and commercially appealing. The houses almost single-handedly established the official return of prefab in 2002 and, here, form a baseline for judging the rest of the projects in the exhibition. After all, the Resolution 4 houses are what most people would consider prefab: a simple and efficient boxlike geometry preassembled in a factory—a "single-wide" preassembled container delivered and stacked on site. A few of these house types are in the exhibition, such as the Sunset Breeze House by Michelle Kaufman Designs and the WeeHouse(s) by Alchemy Architects.

The FlatPak House by Lazor is one of the most successful developments of prefab in the last four years. Although it utilizes standard, preassembled panels, it offers flexibility of construction and material combinations that appear less dictated by the system or the architect and thus empowers the consumer. The houses by Rocio Romero and by Marmol Radziner + Associates are far more complicated modular models: although they may look like prefabricated houses, they are simple geometric shapes made from sometimes panelized but primarily complex on-site framing operations. In fact, in the videos of the Rocio Romero houses, the builders, traditionally trained carpenters, are seen assembling the house with no less effort or greater economy than a standard frame house. Thus one can ask, is prefab really more efficient than regular construction? In all of the exhibition's video interviews the clients seem very happy not only to be a part of the prefab movement but also with their modest Modern houses.

This show presents a critical mass of work, assessing prefab with a historical perspective. In the exhibition catalog, Andrew Blauvelt categorizes prefab as three things: the kit home, the panelized house, and the volumetric model. There are obviously many overlaps, since some of the projects in the exhibition are boxed, shipped, and stacked on-site; others are panelized and tilted up on-site, and still others are extremely complex modular systems that resemble "overbuilt" frame construction.

One project, the Turbulence House by Steven Holl Architects, is a "one-off" building form that completely confuses the definition of prefab. The house is a distinct geometry best described as a compact truncated torso with a smear of metal panels over it. Large photographs of the building emphasize the errors in the making of the metal panels and their on-site installation. There is nothing about the house that can be easily argued as prefab, unless one assumes the position that just about any form of assembly using CNC-milling technology or computers ought to be considered as such. And that's when the entire definition of prefab starts to fall apart. The Turbulence House certainly isn't the only contributor to the conundrum of this exhibition, but it causes one to wonder about why it was included at all. Could it be that it's the only structure here that provokes an interest in formal expression?

After all, nothing in the exhibition is formally provocative, per se. Perhaps the curator picked the Steven Holl house to remind the viewers of the radical possibilities originally proposed by Buckminster Fuller's 4-D House (1929), built as the Dymaxion House(s), which are referenced in the catalog but never mentioned in the exhibition. Even though the Turbulence House is of no real comparison either in its construction or otherwise, it does offer at the very least a pause to question the boxy structures that dominate the prefab housing market.

It is clear that architects and critics are still struggling to define what prefab is and what it looks like. It was much clearer a few years ago when people were looking for efficient, simple, and hopefully greener single-family homes; at the same time, architects were also experimenting with modularity as ways to make buildings. Those sorts of priorities still exist, but now the market has embraced the more easily realizable simple geometries. There is room for experimentation.

The ideals surrounding prefab are a convenient answer to many an architect's aspiration: the ideals of efficiency of structure, formal efficacy, and economy of assembly. If that's the case, then aren't we simply describing the practice of Modernism? Certainly the term *Modernism* is broad enough to accommodate all the practices found in the exhibition. In fact, the collection of projects works as a cross section of practicing architects recontextualizing their practices in the Modernist ethic.

With the rise of technological advances in production, architects have been able to get closer to the craft of building, as seen in the growing digital-fabrication facilities at Yale's architecture studios that allow not only for rapid prototyping of scale models but also for full-scale material study. These new tools have already changed the way architects address practice, and it seems that prefabricated housing is an excellent proving ground for those experiments, implementing the Modernist ethos described above.

A point can certainly be made that the American proclivity for single-family rather than multiple-dwelling housing to some extent undoes the ethos of prefab, but perhaps it is simply a matter of time until the prefab definition will be flexible enough to entertain these techniques at larger scales.

Coincidentally, the architecture symposium "Building in the Future/Recasting Labor," which occurred concurrently with the exhibition, addressed several of these issues as they related to contemporary practices of labor and production in architecture. The presenters discussed the growing array of technologies that enable architects, builders, and engineers alike to carefully control and innovate the production of architecture. Traditional boundaries between professions have become less distinct. In many cases the presenters were skeptical of the ability of architects to weather the growing breadth of specialized technical approaches, implying that they are losing their influence.

Certainly the architects practicing in small and medium firms were the most excited about new possibilities, like parametric modeling, building information management (BIM), and rapid production techniques, all of which until recently were associated with projects with exceedingly large budgets. Builders and fabricators may also better compete with architects over the control of those techniques, but these firms have seized an important moment in practice, championing a new model for producing architecture. And that's why prefab—largely because of its immediate scale—offers a chance for architects to reconnect with production in a way that has long been distant from their practice. We've only begun to see the effects.

—Michael Tower
Tower ('00), is partner in the architectural practice Tractor, in New York.

1. Lazor office FlatPak House in transit, 2006, from Some Assembly Required: Contemporary Prefabricated Houses*. Photograph courtesy of Lazor Office.*

Decoration

A discussion on the occasion of the book launch *Decoration*—published by 306090, edited by Emily Abruzzo, teaching assistant at Yale, and Jonathan D. Solomon, assistant professor at University of Hong Kong, and designed by David Reinfurt (Yale School of Art '99 and graphic designer of *Constructs*)—was held at the Architectural League of New York on November 3, 2006. The panel included contributing authors: Kent Bloomer, sculptor and professor at Yale; Ben Pell, architect and critic in architecture at Yale; Nina Rappaport, architectural critic and publications director at Yale; Jesse Reiser, architect and professor at Princeton, and Adam Yarinsky, architect, ARO, New York. The following are brief excerpts from the discussion.

Jonathan D. Solomon: Contemporary manifestations of decoration are differentiating themselves from a century of arguments either for or against its practice in architecture. Two terms for describing these new forms of decoration came out of 306090's tenth volume: one, Nina Rappaport's article, "Deep Decoration," describes an overlap between structure and affect. The second, Jesse Reiser's "ornament/structure complex," suggests that the two can exist in a hybrid form in which structure is understood as a subset of the ornamental, rather than the other way around. Beginning with "deep decoration," how do these concepts differentiate themselves from ideas of the integration of decoration with structure, or the lack there of, that came before them?

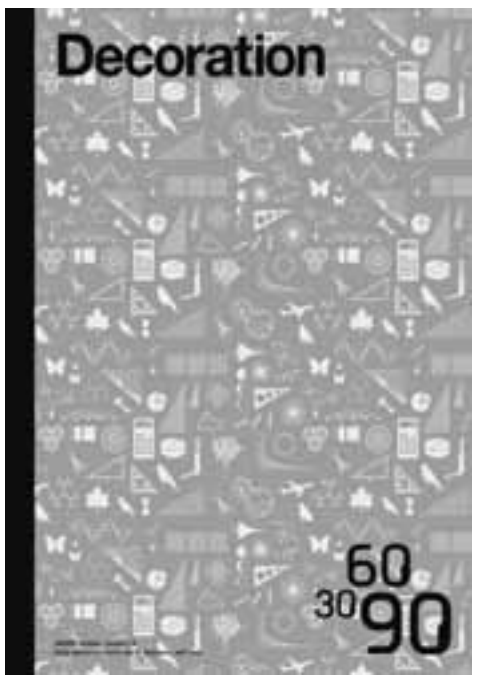
Nina Rappaport: The topic continues the debate between the resolution of surface, skin and structure in architecture. In my investigation of new structural form and design engineering, the arrays and patterns of new structures evolve with the architectural design and are sometimes unconsciously determined. The structures evolve from geometric solutions to a set of problems without the goal of decoration but to create a new emphasis—the structural form is integrated with design and performance. Design is synthesized with structure, producing a deeper structural meaning that is different from the Modernist's interest in structural expression and is integrated beyond "form follows function".

Ben Pell: One of the distinctions one might make between an early twentieth-century model of decoration and ornament and a more contemporary model would be that the Modernist polemic that we're all familiar with established an oppositional relationship between structure and ornament. A lot of recent work exhibits a desire to conflate the roles of structure and ornament as being relational rather than oppositional, suggesting that you might be able to build in certain aspirations toward excess within structure, and vice versa.

Jesse Reiser: That would assume that even though things hadn't been so focused ten years ago, ornament was a more complete description and structure was a sort of subset of that, rather than seeing them as dialectal or symbolic. The unconscious dimension could also be seen as working in a milieu where there's a surplus of information and potential. It was astonishing to realize that the ornamental elements of the tower we are working on in Dubai were suddenly giving off by-products in terms of other kinds of performance: it could buffer wind in a very interesting way, it could create a kind of chimney effect separate from structure-ornament dialectics, and it became a kind of "order for free" model. Of course you have to intentionally amplify it, but it seems to be a very robust way of working: You set up a system that has some potential, and then you deliberately amplify, edit, and refine.

JS: How does that fit into this discussion of intentionality, both from a rhetorical viewpoint—that the architect or the engineer doesn't believe that their building is decorative, whereas others might see it that way—and also that of effects? What can we say about unintentional effects, either decorative ones coming out of structure or structural ones coming out of ornamentation?

Adam Yarinsky: Effect can be defined in different ways, and I guess by the way it's used in the question it has to do with issues of perception. Decoration, along with form and structure, is often used as a strategy for creating effects. What is "an architecture of effects," and what role does decoration play in it? There might be a difference between that of classical or Modern architecture in the sense that what might have been a shared language that could carry meaning is reconstituted as a perceptual experience, which embeds an understanding of ideas. To me, effect is superficial, but maybe that's just a pejorative use of the word. It's not effect for effect's sake, but either for functional results or the layering of functional parameters.



NR: The idea of decoration as an all-encompassing field, as a nonlinear or non-hierarchical space, is fascinating as a way to start to create a new kind of space.

JR: It's the strangeness of this material to our eyes. I would suspect that most of us, in our weaker moments, assume that space is a coordinate field filled with grids. That's the normative perception of what space is. But to think of space as a jungle or as this incredibly variegated field still requires a leap of faith from most people.

JS: In the collaboration between architects and engineers or within the architect's practice, how does new technology and fabrication processes impact decoration?

BP: I think current interest in digital fabrication might help us renew the conversation about decoration because these technologies, in the most mundane sense, rely on strategies of repetition and difference through variation. Repetition and difference are the lifeblood of ornament and decoration, even when we talk about the production processes that have traditionally been used to make things such tile patterns and wallpaper. Digital fabrication can thereby act as an agent of renewal in pursuits of decoration and ornament.

JR: In terms of the intervention of the hand in these processes of the digital realm, there is a lingering doubt about the mechanisms that somehow make the project less intelligent. It's almost like the story of Michelangelo's hierarchy of the arts, where he put weavers at the lowest level because they were involved in the most completely repetitive mechanical work. We now have this amplified mechanism. People talk about the issue of randomness, but there is a level of frustration as well as infatuation.

AY: In one of our projects for the Motown Museum, the outer-layer building, which we called "the dress," is twisted bands of metal distinct from the interior envelope wall behind it, but the intention was to allow you to read the building as a very large object so that in the context of surrounding buildings, such as a baseball stadium and the superhighway and open space, you would recognize it from a distance. But it has the elements of perception of scales because then, when you come closer to the structure, you experience a different understanding of what these bands are doing. Similarly, when you're inside, they would be selectively angled to allow different parts of the interior experience to have views to specific areas. It becomes the multiplicity of experiences that is exciting about this kind of decoration.

JS: It seems that the revelation here is that aesthetics can become as much of a player in the systematic process that generates design and consequently, that process no longer becomes reliable as a reason for why the building looks the way it does.

BP: I'd like to respond to one of Jonathan's questions, which summed up is, Why now? Why are we interested in decoration now? I think one of the reasons is because of a widespread dissatisfaction with the project of Modernism. Contemporary discussions of ornament, decoration, performance, and effects are all rooted in a desire to become more culturally engaged as architects and designers. Here, I would again differentiate between a Post-Modern attitude toward decoration and a more contemporary attitude. The former arguably embraced a historicist model which reestablished timeless motifs and reconstructed the linearity of periodic style that was so integral to the Romantic era and which Modernism brought abruptly to a halt. There's something retrograde about that attitude, whereas I think contemporary interests in decoration and ornament are looking to establish projective, generative models—ways in which we can question the role of decoration, its relationship to structure, and its ability to produce things like effects and atmosphere.

Emily Abruzzo: Today, decoration is defining itself both against Post-Modernism and against the "hands-off" methodologies of either the diagram or the algorithm. We are seeing, for instance, architects using laser-cutters and then adding to the work with their own hands. I think that's very similar to the intentional pull and push between the architect and the engineer and what's so defining about this moment—that degree of engagement. It is definitely not "Look Ma, no hands," and also definitely not taking things from the past to reuse in new ways.

Kent Bloomer: To summarize, I want to point out the distinctions between ornament and decoration pointed out in my essay in *Decoration*. It is still important to distinguish between the two terms so we have the ability to be critical. Ornament traditionally has been found in details constructed out of motifs that were generated in the pattern, with the motif being at the heart. It's the nucleus of the activity. It descended from notions of the cosmos and nature as the culture was treating those terms. Figures of ornament generally had an object; there was ornament and the object of ornament. Ornament was participating in a dialogue by bringing natural references into the artificial man-made world, between ornament and its object. Decoration, first made distinct by William Jordy, was discussed as an arrangement rather than a detail. Decoration includes the ordering of all elements of composition as decorative elements and with elements of ornament; decoration orchestrates all of those as an umbrella concept. For that reason, decoration, unlike ornament, inclines toward synthesis. The meaningful content of decoration is predicated upon societal values as it is descended from words like decorum, décor, and decoration in the Latin; in French, décor of the court, courtliness. It seems that "ornament" more than "decoration" can stay in a dialogue relationship. Decoration can in fact be competitive; and ornament functions best when it goes somewhat against synthesis. One can go so far as to say that ornament resists synthesis.

JR: These are polemical arguments. In practice it is about a dialectic we are setting up, but we have been fascinated by how this issue of the diagram, which seems to point to another way of operating, gets you out of assuming that you're going to be dealing either in the Cartesian world or in a completely uniform universe. There are ways of working with the two that don't predicate themselves purely on a dialectical opposition.

KB: I'm suggesting that decoration can take care of the change; ornament is more toward unchange. The way to resolve that is through maintaining the dialogue.

1. Decoration, 306090, Volume 10. *Jonathan D. Solomon* and *Emily Abruzzo, Editors.*

In The Field

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2.

On the occasion of the restoration of Louis I. Kahn's Yale University Art Gallery by Polshek Partnership, *Constructs* features two analyses of the work, one from a technical and the other from a programmatic, historical point of view.

Raw Geometry

Louis I. Kahn's Yale University Art Gallery (1953), his first major work and Yale's first Modernist building, celebrates not only formalism but also performance. In "The Architect Speaks" an interview by Henry S. Cooper for the *Yale Daily News* dedicated to the opening of the Art Gallery and Design Center (November 6, 1953), Kahn refers to the tetrahedral ceiling's embedded air ducts and electrical raceways woven throughout: "It is beautiful, and it serves as an electrical plug [trolley ducts permit attachment of electrical fixtures anywhere on the surface] and as a lung. It breathes. Air is forced in through these vent pipes and through the corrugations in the ceiling. You see, we can only think of form after the requirements have been fulfilled." One of Kahn's famous concepts is the idea of "served spaces" and "servant spaces," which describes the hierarchy of relationships between the parts and functions of a building and between what is seen and what is hidden. At its heart, this idea ties the artful work of designing beautiful spaces with the technical work of applying functioning mechanical systems.

In terms of its performance, today's interior environment has been carefully calibrated to maintain a constant 68 degrees and 50 percent relative humidity, effectively controlling the museum's biggest problem: moisture. The life of the Yale University Art Gallery shows that the battle against the climate requires ongoing work and refinement. Kahn optimized the mechanical systems of the building by incorporating them into the formal moves of the design, making the ambient air an integral part of one's experience of the building.

The major goal of the renovation was for the exterior to appear "identical" to Kahn's original design, particularly the glass-window walls. It was "the greatest challenge of the project," says Hazard, a partner and lead architect of the renovation from Polshek Partnership. The window walls have been entirely redone. Shortly after the building was completed in 1953, condensation formed on the steel, resulting in the installation of metal collector pans along the base of the window wall, a decision made by Kahn, noted Hazard. In addition, the thermal stress of repeated expansion and contraction of the steel mullions caused the seals of the Pittsburgh Plate Glass Twindow, a prefabricated double-paned insulating glass product developed in 1945, to fail. This produced wet-staining, a process where condensation forms on the interior surface of the glass and results in white cloudy patches that impair vision. Elise Kenney, the art gallery's archivist, recalls that each ailing panel was painted white to hide its blemishes, making the building less of a spectacle.

The new window wall is again a prefabricated insulating unit. Constructed as a unitized system, the original was stick-frame, structurally reinforced aluminum mullions and glass arriving at the site as one integrated unit. Once attached to the building, each unit remains physically separated from the others, minimizing movement. The updated window-wall detailing changes on the interior, becoming structurally stable as the profile grows deeper to further eliminate movement. Advanced structure works with new environmental requirements to complete the glass wall.

The new pristine façade has been detailed to meet current energy codes and ups the ante of its performance with thermally broken connections that conserve energy and eliminate condensation. In addition, the prefabricated glass unit is composed of low-e coatings that work to keep heat out at the exterior and in at the interior, with a double layer of glass held together by a pvb interlayer. The new system was configured through computer modeling of the entire building, simulating its climatic events using computational fluid-dynamic studies to examine the transfer of heat and air through the glass; achieving a stable museum environment required more than an engineered surface alone. The resulting data proved accurate when subjected to live tests performed on a full-scale mock-up, which included modeling a portion of the interior mechanical system so as to reduce the risk of condensation buildup in the final building.

The interior spaces are conditioned by the mechanical units located in the service core (portions were distributed to the roof and basement for the renovation) and pump thermally regulated air through the "breathing ceiling." Because of the thick beams along the perimeter at the ceiling, existing duct work could not be extended to the window wall, so a doubling up of perimeter heating pipes at the base of the window wall was required. Gordon H. Smith, PE, the exterior wall consultant, describes the performance at the perimeter of the building as operating in "defrost mode," which washes the surface of the glass with heat, evaporating any condensation on its surface (think: car defroster). This internal microclimate constantly protects the interior environment against external influences, improved by the new window wall and doubled heating pipes, and works in tandem with the white fabric scrims to mediate direct sunlight and harmful UV rays. During the day, the window wall is seen as a changing pattern of white scrims and black windows. At night, an automated shade, which acts as a thermal blanket insulating the building from temperature fluctuation, is lowered, veiling the north and west elevations in total whiteness. In the morning, the shades rise to reveal its interior.

Kahn's art gallery is a body exposing its inner workings of air ducts, wiring, lighting tracks, surveillance system, breathing slots, and changing skin. It is an organically functioning construction held in place by its building materials of brick-and-block walls and concrete-framed ceiling; and like a body, it cannot exist without assistance. Maintenance regimens, which were established at the beginning of the building's life but whose abandonment led to the degradation of the building, have been reinstated through a rigorous training program. The attention to this detail reinforces how architecture is a process. Maintenance is not thought of as a form of architecture, but it is integral to its performance, a proposition supported by the 50-year life of this particular building. Kahn's original design integrated Modernism's formal aspirations, which Anne Tyng has called "raw geometry," with the most progressive technologies of the 1950s. The renovation improves on the original design by adhering to Kahn's vision by focusing on the technology and performance, which is a long process requiring adjustments and improvements as building technology improves. This project sets an important precedent for the preservation of a major Modernist work, and its performance will serve as much as a model to study in the years to come as the collections it displays.

—Hilary Sample
Sample is an assistant professor at Yale School of Architecture.

Restoring Kahn

When Louis I. Kahn was given the commission to expand the Yale University Art Gallery in 1951, he faced an amorphous assignment. Earlier schemes by architect Philip Goodwin (1907) had been cast aside in frustration, and money was short. According to Charles Sawyer, then dean of the School of the Fine Arts and head of the building committee, the addition was to accommodate not just added gallery space but also offices and studios for students in both the art and architecture programs. However, Sawyer expected that the artists and architects would eventually move out, leaving their space to the gallery, but the timing was uncertain. Accordingly, he told Kahn that what Yale needed was "maximum flexibility."

The artists and architects left the building in 1963, but it was not until the late 1990s that Yale made plans to renovate the gallery as the centerpiece of its arts district. Gallery director Jock Reynolds told the designers, Polshek Partnership Architects, that his main concern was to provide as much display space as possible for Yale's extraordinarily diverse collections, most of which had been confined to storage. He also wanted to facilitate the rapid turnaround of exhibitions. "We're a teaching museum," Reynolds says. "Our goal is maximum accessibility."

Now that the renovations are complete, it is clear that Polshek Partnership's founder, James Stewart Polshek ('58), who studied under Kahn, has understood both the building's history and its present needs. Today's gallery is a model of both flexibility and accessibility. More important, it has fulfilled the hope that Kahn surely had for it: a dedicated space for art, and a work of art in itself.

The journey to this happy condition was not always smooth. Among Kahn's decisions at the outset was to create loftlike spaces that could be reconfigured at will using "pogo panels": thin partitions with spring-loaded pipes at the top and bottom that allowed curators to move them about the gallery according to the demands of an exhibition. The panels also let light penetrate from above and below to maintain the sense of a single, continuous space. Kahn made powerful use of materials, limiting his palette to glass, brick, steel, and concrete. (He commissioned smaller-than-normal concrete blocks to create a more intimate scale for the interior walls.)

But in the late 1950s a new gallery director, Andrew C. Ritchie, working with Paul Rudolph, chairman of the architecture department, made extensive changes to the gallery. They enclosed the stair tower and covered many of the walls, painting them white as in the Museum of Modern Art, where Ritchie had worked. (The changes infuriated Kahn, who would look neither right nor left when he subsequently had to attend meetings in his building.) Later, new codes required the addition of sensors, emergency lights, and other homely hardware that was difficult to conceal. Worse, the window walls designed by Kahn began to fail as the steel frames rusted and temperature changes broke the seals of the double-glazing.

Polshek and his team, led by Duncan Hazard (Yale College '71), have addressed all of the accumulated problems. They uncovered the stair tower, making it again the first thing visitors see upon entering. (Like the rest of the concrete, the tower has been cleaned, except for a patch on the top floor where there was once a pay telephone for the architecture students, who wrote names and assorted phone numbers on the cylinder. Reynolds felt this bit of history should be preserved.)

Most of the former offices have been relocated to other buildings. New pogo panels have been installed, and the basement court along York Street, which had been decked over for offices and galleries, has been reopened, providing a new home for the massive Richard Serra sculpture that had dominated the main room of the original 1928 gallery, designed by Egerton Swartwout. The schedule for all this had to be coordinated with efforts to link the gallery's exhibition spaces to the Swartwout Building and beyond to Street Hall, on High Street, while plans went forward for an addition to the Art and Architecture Building to house the art history department. "It was the term paper from hell," Reynolds says, "and there were no extensions." Beyond the time pressure, the architects had to contend with contractors who were not always sensitive to the gallery's importance. "It took a while to educate them that this is a historic building," Hazard says. "This is the new world of preservation."

A major achievement of the renovation is that the tetrahedonal concrete ceiling slabs have been allowed to reassert themselves as the unifying element in the Kahn design. Originally conceived with the help of his associate Anne Tyng to be self-supporting "space-frame" members, they were stiffened after engineers raised doubts about their strength. Kahn discovered to his delight that utility lines could still be threaded through the voids left in the slabs, which were no longer as structurally innovative as he had originally envisioned, and they were expensive. He kept them nonetheless, apparently because he liked their looks. "I know it's not pure, but I'll buy it," he told a colleague. Kahn's retention of the slabs despite the compromise of their original design would become a characteristic

sleight of hand, emphasizing an architectural feature that sent a message—in this case, "structure"—even though it was in fact essentially ornamental.

With the accumulated clutter of the intervening years now gone, the slabs again appear to hover protectively over the reinstalled collection, creating an inescapable signature for the building without overwhelming the art below. Reynolds, himself an accomplished artist, is understandably pleased with the renovations for his own reasons. But he feels the project has also paid tribute to the gallery's author. "God rest his soul," Reynolds says. "I think Kahn would be happy to see his building brought back."

—Carter Wiseman
Wiseman is lecturer at the School of Architecture; his book Louis I. Kahn: Beyond Time and Style *will be published by W. W. Norton in spring 2007.*

Allan Greenberg and Witold Rybczinski on *Architecture of Democracy*

On November 20, 2006, the Institute of Classical Architecture and Classical America in New York hosted a conversation between writer Witold Rybczinski and architect Allan Greenberg ('65) concerning the latter's new book, *Architecture of Democracy* (Rizzoli 2006).

Having arrived in this country as an emigrant from South Africa, Allan Greenberg developed an extraordinary personal interest in our Founding Fathers and the creation of our government, giving him an uncommon vantage point from which to survey American architectural and political traditions. The book *Architecture of Democracy* lays out an argument for how our architectural tradition and our democratic ideals are deeply connected and how early American citizens transformed and reappropriated the symbols of classical architecture once associated with the divine and, later, royal authority, using them on their houses as proud expressions of their individual roles in our newly constituted self-government. These residences became the models for civic buildings, reinforcing their political importance as "houses of the people." As the book unfolds, a wider discussion emerges that includes a thought-provoking series of diagrams laying out an argument for how dramatic shifts in scale can drastically change the reading and perceived meaning of classical symbols.

Both the book and the discussion at ICA revealed some unexpected biographical details about this well-known classical architect, including the nature of his architectural training in South Africa, his early determination to work for Le Corbusier, and his work on Jørn Utzon's Sydney Opera House, all of which contribute to Greenberg's fluid discourse in both the Modernist and classical traditions. While none of this will surprise those who are familiar with his work, there was, however, one real surprise to end the evening: When Greenberg was asked, "If you could live in any house in America, which would you choose?" He responded, "Philip Johnson's Glass House. It is the most magical house I have ever seen." Excerpts of the discussion follow here:

Witold Rybczinski: You start the book characteristically laying out your arguments immediately. The first one is that great architecture "makes great ideas visible." Certainly all architects would agree with that intuitively. But the second statement is that American architecture embodies the ideals of democracy. I think that's quite a provocative statement because you're not just saying that statehouses embody democracy, you're saying something much bigger than that, aren't you?
Allan Greenberg: Well, if you are born in Spain or Romania or China, you are part of a landscape, a geography, a culture, and a language that go back millennia. Most Americans either chose to be Americans or some ancestor...left someplace to come here. People immigrated to these shores in search of a better life. While the early Colonists saw themselves as Englishmen, eventually that wasn't enough. They created a nation, and the Constitution says very clearly that "we, the people," constitute this nation. It's not a nation constituted by time; it's one constituted by the hope of a better life, by dreams of improvement and of a democratic government. This is who we are. We speak in another nation's language, and we bring cultures from all over the place—and somehow they melt into something richer that we have here. There are very few nations in the world that are self-constituted or as young as we are.
WR: You say something in the book that really struck me because I'd never thought of it that way. Most architects, I think, are very literal. They see a pediment as a pediment; they know its origins and meaning. But you say that finding an architecture that expresses something new isn't necessarily creating a totally new architecture: you can find old symbols...rather than inventing a language. It's sort of like the way we use English, which isn't our language, but we say different things than the British say.
AG: If you give up the language that you have—the most developed and articulate language that you have—you become inextricably involved in creating something new, and "new" has relevance only if you can measure it against something that happened yesterday. So tradition and newness are the opposite sides of the same coin. If you are rejecting that currency, you become involved in a world of novelty; it becomes novel, and therefore interesting, and therefore new and different. I don't know what range of meaning a "new" architecture can produce.
WR: You talk about scale in the book. When I read it I felt that you were saying that there might be a scale that is inhuman. Was I misreading it? Can a good architect deal with any size of building?
AG: I think a very good architect can deal with just about any of size building. I believe I made a pretty good case for that in citing the Empire State Building. There, you have a skyscraper, the tower of which is pushed back from Fifth Avenue so that the base of the building is only five stories high—about the height of the older nineteenth-century buildings around it—and the successive setbacks relate to the successive stages of growth in New York City, which was always measured by height. So this building was beautifully integrated into its surroundings. ... On the other hand, Albert Speer's great domed Nazi Party Building was almost as high as the Empire State Building. It had a scale that was purposely made inhuman because the doctrine demanded that the Führer and the party dominate the ordinary people.

—Melissa Delvecchio
Delvecchio ('98) is an architect at Robert A.M. Stern Architects.

Histories of British Architecture

The working conference "Histories of British Architecture: Where Next?" at the Yale Center for British Art (YCBA), November 2 to 4, 2006, gathered historians and architects to discuss the future of history and design in a series of similar events at the museum.

"Histories of British Architecture: Where Next?" offered an informative portrait of an extremely varied field. More than highlighting any overwhelming direction for the future of historians in Britain, it provided a set of problems and opportunities in the field, clearly portraying the diversity of architectural culture and the range of fields to which it is closely tied. Regrettably, some of the most interesting developments presented at the conference are not housed in schools of architecture in Britain. This sobering thought underscored the dangers of the anti-intellectualism currently sweeping professional architecture culture on both sides of the Atlantic.

The conference was bookended by American scholars outside the immediate field of British architecture. Nancy Stieber, a historian of Dutch Modernism, opened the conference by invoking a generation of postwar British historians as models for contemporary historical investigations of architecture. Encouraging British architectural historians to break out of the boundaries that encircle their highly specialized field, Stieber noted that current interest in space, geography, culture, and politics makes architecture a subject of particular social relevance. Raymond Williams and Eric Hobsbawm, she claimed, can reconnect architecture to wider social discourses and help to enlist a larger general audience. Similarly, Barry Bergdoll, a longtime American friend of British architecture, closed the two-day conference with a broad summation and provocative observations on the future of the field. He noted the wide array of approaches documented at the conference and surprising phenomena such as Britain's quasi-public "amenity societies," which structure and differentiate architecture's relationships with its public in the United Kingdom.

In between, a series of sessions went deep into the very robust and well-articulated field of British architectural history. Several themes of importance emerged. First and most pressing for an architecture school audience, a clear ideological division between architectural historians and practicing architects arose. From the initial conference session, "British Architectural History in the Academy," to the Friday night session, "British Architects as Readers of Architectural History," chaired by Dean Robert Stern, the relationship of history to architecture emerged as contentious terrain. From the historians' side, as presented in the morning, the lack of relevance of history to professional school audiences has been exacerbated by recent renewed interest in the (very historical) subjects of empathy, affect, and phenomenology (similar to "postcriticality" in the United States). Historians of architecture in Britain are being gradually rerouted from the architectural school to departments of art history or the "heritage sector" (historic preservation and related subfields). Instead, history in the professional school is gradually being taken over as the precinct of design faculty and practicing architects—those who make history more accessible to students of architecture. Sam Jacob, of the London-based firm Fashion Architecture and Technology, or FAT, offered some evidence that history may be a source chiefly for visual footnotes within current architectural practice. Instead, contemporary image culture, which includes pictures of old things such as half-timbered buildings, offers adequate sources of figuration for the production of new buildings. Jacob thus provided much food for thought: if history currently occupies a marginal status in the architectural school in Britain, what are the causes of this situation, and what convincing counterproposals might be made to make the history of architecture relevant to its current production?

Both in Dean Stern's opening remarks and in each of the speakers' presentations in the session, references to James Stirling and his work were made. Discussing how context influences design, Ed Jones, partner in Dixon Jones Architects in London, showed his firm's extension to the Royal Opera House at Covent Garden. Committed to the history of Modernism, Jones nevertheless approaches historic contexts with a high degree of sensitivity. The resulting buildings, stitched together from discontinuous elements that respond to different scales, programs, and surrounding contexts, recall Stirling's own montage architecture. Architect Robert Maxwell, former dean of Princeton School of Architecture and an old friend and compatriot of the former Yale Davenport Professor, also summoned up Stirling in his presentation, as well as a body of references for an image-based architecture organized around shared cultural communication.

A second theme concerned the changing parameters of the discipline. In a well-focused session on "Hierarchies and Boundaries," Marc Crinson of the University of Manchester, Alice Friedman of Wellesley College , and Mark Guillery discussed colonialism, feminism, and vernacular studies in relation to architectural history. They emphasized an expanding field by noting that the purpose of new methodologies is not to exist as marginal discourses but rather to reconfigure the entire field to which they add a new aspect. Provocative ideas for expanding the borders of architecture might be further elaborated to include questions of how architecture is used over time, how architecture intersects with its public and clients, how it engages with contemporary media, how it is both served and restricted by its own technologies, and the sociology of its own internal politics, academic and cultural. Dean Stern contributed an important addendum: among the most interesting forms of "British colonialism," the current predominance of British architects on the international scene, particularly in the Far East, should be considered. The tremendous success of British architects on the global stage is as unprecedented as it is remarkable, calling for deeper historical analysis.

In addition to the well-knit sessions described above, others shed light on the state of British landscape studies, on the intersection of academic culture with the organizations that provide interfaces with a general public interested in buildings, and on the importance of the historical study of building technology. Daniel Abramson's provocative talk on "economic evidence" opened with the scene from the film *All the President's Men*, where, in a parking garage, Robert Redford meets Hal Holbrooke ("Deep Throat"), who says, hoarsely, "Follow the money!" Abramson exhorted architectural historians to do the same: to explore political and social relationships conditioned and constructed by architecture.

Part of a series of scholarly conferences organized since 2002 by the Yale Center for British Art (YCBA) to survey the state of British art history, design history, and architectural history, the conference was conceived by Amy Meyers, director of the Yale British Art Center, former Mellon Centre assistant director Frank Salmon (now at Cambridge University), and YCBA head of research Michael Hatt and coordinated by Serena Guerrette. Meyers closed the conference by noting that the disciplinary separation embraced by the organization of the first three conferences would now allow for future conferences to cross-cut themes between the three fields and will surely unfold others.

—Claire Zimmerman
Zimmerman is a lecturer at Yale School of Architecture.

1. Yale University Art Gallery, Louis Kahn building, west window-wall. (c) 2006 Yale University Art Gallery. Photograph by Elizabeth Felicella.
2. Yale University Art Gallery, Louis Kahn building, interior of third floor. (c) 2006 Yale University Art Gallery. Photograph by Elizabeth Felicella.
3. FAT Architects, New Islington, England, 2006. Photograph by Len Grant.

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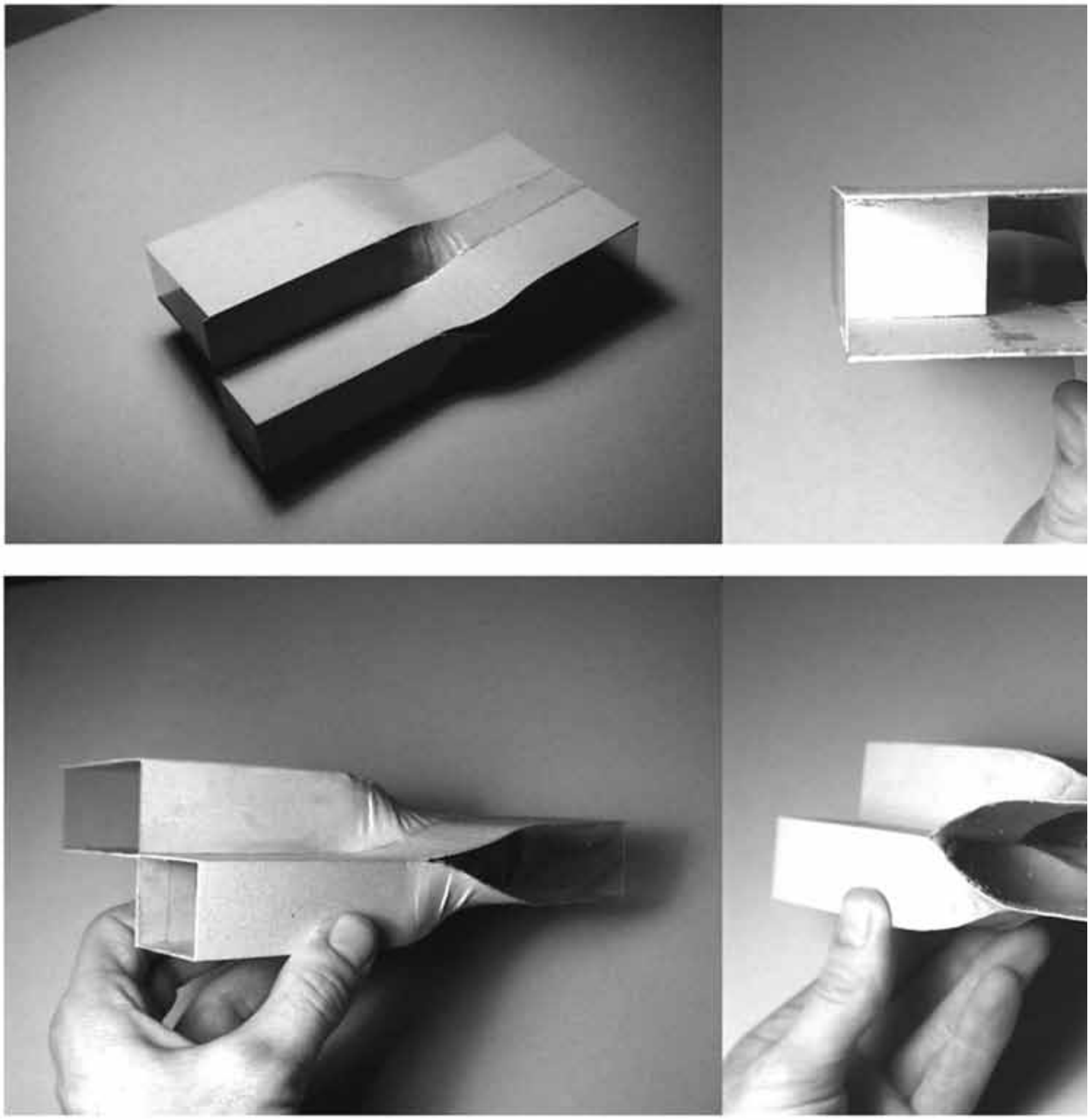
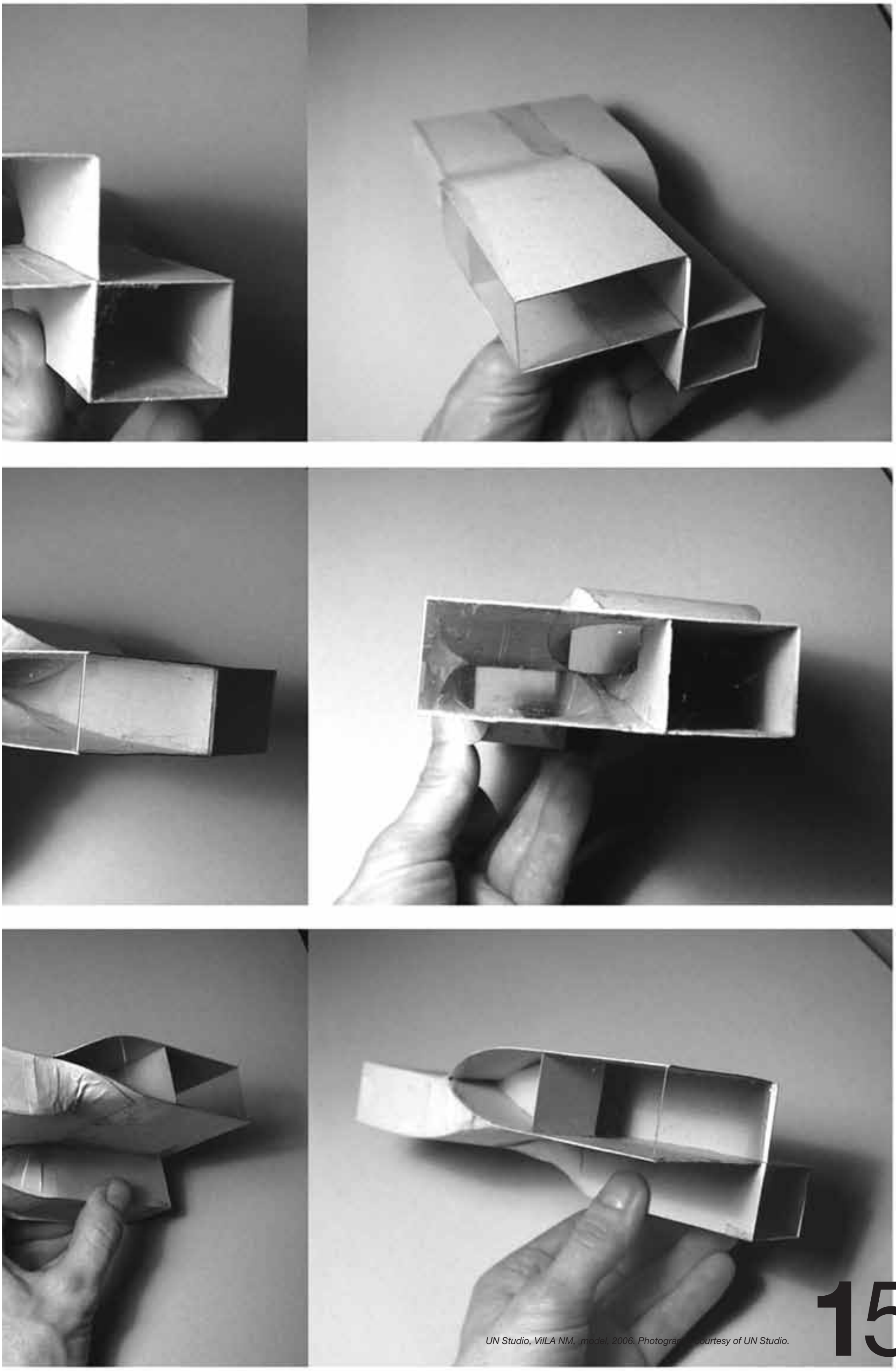
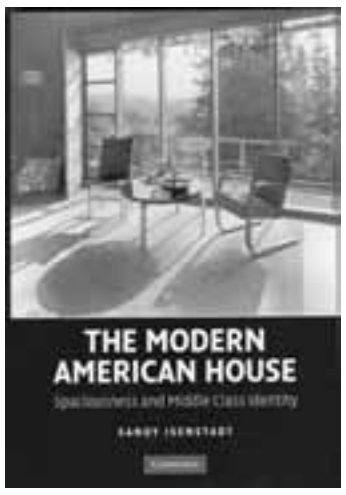




UN Studio, VilLA NM, model, 2006. Photograph courtesy of UN Studio.

Books



The Modern American House:

Spaciousness and Middle-Class Identity by Sandy Isenstadt, Cambridge University Press, 2006, pp. 342.

"Borrow the view." "Bring the outdoors in." Anyone who has designed by these dictums is a prime candidate for Sandy Isenstadt's analyst's couch. In his new book, *The Modern American House: Spaciousness and Middle-Class Identity*, the architectural assumptions you were reared on, the intellectual habits you assumed were universal and may even have thought of as instinctual, are carefully teased away from their secure perches among the unquestioned. And the complex roots of this kind of thinking—in a transplanted Modernism, a kind of cheerful American hucksterism, and our heroic national mythology of man on the land—are exposed.

Isenstadt, assistant professor of art history at Yale, follows the trail of "spaciousness"—a habit of mind and desire of the eye so ubiquitous, "so good-natured and self-evident," that we assume it just as we assume the air it hovers in—as it winds its way through the small American house from its roots as a type in England in the eighteenth century through its apogee in the California suburbs of the 1950s. In so doing, he performs a kind of historical dream analysis on the type and its owners.

"Spaciousness," a concept surrounding perceived rather than measurable space, can be read as a rich vein of strategies for bridging the gap between the actual size of the house and its much larger cultural ambitions. This book tracks this stream of careful accommodations as they develop over time, as well as how—as in a dream latent needs or conflicts are defanged, controlled, and represented—"they came to be unexceptional."

The small-house type was born as an object of architectural discussion in eighteenth-century England. There, it was an important set piece in the picturesque landscape and, in the form of workers' housing, a focus for the paternal attentions of the upper class. In its next generation and with the "new" soil of America as context, its meaning shifted.

On this side of the Atlantic, the small and proudly autonomous single-family house became a vehicle for blurring rather than asserting class distinction. Here a growing middle class and a host of circumstances that made small houses both desirable and achievable aligned this type of home with the interests of an empowered majority. Ownership of a small house, indeed of any house, was a badge of inclusion in the grand democratic schema: the mythos of a new, vast landscape open to the horizon without class or physical limit.

But the small house was physically small. The real limits of its envelope constricted the expansiveness of the dreaming that went on inside. Mechanisms needed to be found to elide the differences between the "haves" and "have-lesses" in an America of such clear abundance and infinite promise, rounding the edges of a reality that wasn't fitting. And Isenstadt argues that it's here, at this juncture, that the concept of spaciousness starts to gain traction as a mechanism for making it all work. By creating a sense of space in the home, particularly a space that existed more in the mind's eye than anywhere else, a connection could be made to that larger, earnestly imagined American space: "Spaciousness could represent a kind of democracy attained."

From the last part of the nineteenth century, in an era that saw the rise of "shelter" publications and the design professions, the production of spaciousness became a kind of Zen riddle, a puzzle that could feed article upon article and allow a claim to a very particular expertise. Isenstadt tracks its myriad solutions—the interpenetration of rooms, the overlap of program, the preference for broad effects, the use of mirrors; and once central heating became more typical, the freedom to separate the orientation of the home from its thermal comfort—and how they worked to create the illusion of distance. He then describes the cumulative effect they had of shifting the home's focus from inward on the hearth out to its edges, of orienting the home toward real, borrowed, or illusory vistas.

Even the language of Modernism imported from Europe bent to expand its palette of tropes to include an emphasis on view. The connection to and command of view became critical to the effect of spaciousness as the concept reached its maturity in the modern American home. More and more, it was the window, particularly the picture window, that framed and fixed this view. The window, Isenstadt writes, created an "imagined unmediated relation between self and the world." And it connected the small house, through an engineered view, to the mythos of distance. But its touch domesticated what it looked out on by framing it. For all the connection and command it desired, the emphasis on point of view and its capture couldn't help but bring about alienation.

In the end, despite all the psychic energy spent proving otherwise and all the gleam of its owner's aspirations, the limits of the small house still confined. Isenstadt argues that while an active quest for spaciousness may have ceased and our views may have shifted (to the new picture-window plasma screen or computer monitor), the search for spaciousness still resonates. Not only was it so assimilated by the profession that it remains unquestioned in practice, but it staked the territory of the small house forever as a "site for perception" and a stage for so very much more than a sum of its parts.

—Amy Lelyveld
Lelyveld ('89) is a critic in architecture at Yale School of Architecture.

Patkau Architects

by Patricia Patkau
Introduction by Kenneth Frampton, The Monacelli Press, 2006, pp. 240.

A fully realized architectural practice is more than a collection of buildings it builds; rather, it is driven by the projects but develops in parallel an overarching set of concerns and working principles. Patkau Architects, the Vancouver-based firm founded by John and Patricia Patkau ('78), is clearly such a practice—one that Kenneth Frampton, in his introduction to their new monograph, specifies as a "reflective practice."

In part, Frampton is defining the two decades of work collected here as the product of an active self-consciousness. As a matter of course, Patkau Architects builds analytical models of many of its completed projects after they are finished, distilling the formal principles at work while teasing out issues to be carried over to later projects. One of the pleasures of the monograph is its depiction of how this process engenders an evolution in formal strategies. These ruminations also demonstrate an ability to step outside a given problem and frame it within a broader set of concerns that can resolve apparently conflicting goals.

The built work displays a persistent consciousness of place and responsiveness to particular programmatic concerns. The Strawberry Vale School (1992–95) demonstrates this well, with the plan negotiating a rocky topography while simultaneously breaking down the classrooms into manageable groupings. The faceted roof modulates light, bringing it deep into the classrooms.

The introduction's celebration of "place-oriented" responses might sound familiar coming from Frampton. Although he never mentions Critical Regionalism, it's not hard to argue that much of the Patkaus' earlier work directly reflects the points advocated in his writing. There is the careful codification of materials to function that foregrounds tactility and experience as the primary carriers of meaning. The articulation of tectonic forces from roof to foundation is astutely explored. The Patkaus draw from sources operatively without leaving stylistic traces. Frampton cites several touchstones from his pantheon: Aalto, Scarpa, Kahn, and Le Corbusier. Stirling should join the roll call as a beacon for finely joined figural rooms and for a shared affinity for layered space.

If Frampton emphasizes Patkau Architects' contributions to his vision of a grounded and humanistic building culture, he does not dwell on it. As he charts its career, he settles into an insightful reading of the practice's full range of tropes and tendencies. He discerns the Patkau's persistent interest in stepped and nested forms. He identifies the formidable oppositions of "served" versus "servant" spaces and type versus variant. Of particular interest is Frampton's elucidation of the synthetic dynamic between what he calls "earthwork/roofwork," a simultaneous cultivation of grounding and sheltering that resolves itself in architectural space. Further, he notices that this is articulated through a peripheral play between structure and cladding, which later becomes a central theme. Using the introduction as a legend to the extensively photographed body of work, we are invited to trace themes and aptitudes emerging and receding.

The Nursing and Biomedical Sciences Project (1996) is worth noting as a crucial change in emphasis. The structure/cladding duality emerges as the central concern but transfers to the façade. The tall bar building is wrapped in a panelized screen that modulates light and ventilation and is then eroded to accommodate entrance, circulation, and views. Sensitivity to place manifests itself in a broader ambition toward sustainable performance. Though it was never built, a series of commissions followed for larger institutional projects in urban settings, including libraries, a university arts facility, and a dormitory. Each is a deliberation on the performative envelope, and we are presented with a repertoire: inflecting urban spaces, syncopating private and shared spaces, veiling and revealing, and drawing inside to create layered processions.

A midcareer monograph can never be comprehensive and is usually best presented through a compilation of well-curated key works. Toward the end of the book there is a shift away from this format to include ongoing projects. The inclusion of these projects is effective, despite the inevitably uneven level of resolution, because it makes clear that Patkau Architects' reflective practice is an open-ended project. We are invited to peer over their shoulders as elements of previous projects are tested against new problems and new interests emerge. A private house begun in 2004 takes some cues from the institutional projects and uses a floating screen wall to corral its shards of spaces. Revisiting the earthwork/roofwork paradigm and applying the lessons of La Petite Maison du Weekend (1998), the Prototype Cottage (2004) can be responsive to a range of possible occupants and landscapes. In possibly their most unprecedented design, a large outdoor plaza at the University of British Columbia is ordered with a regimented array of lines. Whether this will serve as another transition in their body of work is not yet clear, but the vitality of

these unfinished moments brings the practice itself to the fore, showing its unfolding approach to design.

—Andrew Benner
Benner ('03) works at the office of Gray Organschi in New Haven and was the assistant to Massimo Scolari's studio in fall 2006.

The Formal Basis of Modern Architecture

Peter Eisenman, Ph.D. dissertation, University of Cambridge, 1963, Lars Müller, 2006, pp. 528.

In the beginning, Peter Eisenman, icon of the architectural neo avant-garde and onetime collaborator with Jacques Derrida, was a rationalist. The introduction of his recently published dissertation, written at Cambridge in 1963, explains that the work is a reaction to the entire modern worldview, in which empirical explanations have replaced the idealism of reason, logic, and theory. For Eisenman, the Modernist movement, with its reliance on the ever-changing needs of the present, is the architectural manifestation of this shift. *The Formal Basis of Modern Architecture* attempts to escape Modernism's permanent revolution by establishing a rational and systematic basis for architecture, which like logic or mathematics would be transhistorical and simply permanent.

Eisenman, Louis I. Kahn Visiting Professor, argues that architecture is ultimately determined by form, and that a logic of form can be grounded on the supposedly universal and inherent qualities of generic forms such as the cube, the sphere, and the rectangular solid. Specific architectural forms are—or should be—the result of systematic distortions of these generic forms. The majority of the book is devoted to the explanation of the system governing these distortions and detailed analyses, through this system, of works by Le Corbusier, Frank Lloyd Wright, Alvar Aalto, and Giuseppe Terragni. Like a true rationalist, Eisenman must confront here the difficulty of reconciling the world-as-it-is with the world-as-it-must-be, and the argument is rife with the contradictions and leaps of faith that this requires (one is reminded of the contorted geometric proofs of Spinoza's *Ethics*).

While such difficulties certainly weaken a dissertation committed to logic, they are the most prominent signs of its own place in the history of postwar architecture (demonstrating that the modern historicist worldview can encompass even attempts to refute it). Looking backward, it is important to note that Eisenman was advised by Sir Leslie Martin, a powerful figure in British architecture, head of the Cambridge department, and the university's first professor of architecture. Before the war Martin had been part of a British variant of constructivism, and his belief in the objectivity of form, combined with the better-known influence of Colin Rowe, shaped Eisenman's thinking. Under Martin's direction, the entire Cambridge program took a strong turn toward the sciences and mathematics, including the establishment of a research center devoted to numerical modeling and quantitative design methodologies. *The Formal Basis of Modern Architecture* should therefore be seen historically as an especially idealist and formalist attempt to unite architecture and logic in a context that was thick with such efforts. Looking forward, the great devotion of the book to process and the suggestion that process could, and should, be presented as a rational trajectory has had a lasting impact not just on Eisenman's own work but on the entire field of intellectually serious architecture as it is taught and practiced. Confronted today by a growing number of algorithmic strategies for design that literally encode rules for developing forms, it seems a perfect time to return to this nearly mythical source that for so long existed, officially at least, only in the archives of Cambridge.

As an object the book is simply beautiful, and its publisher, Lars Müller, deserves credit for bringing it to light in such an elegant presentation. Anticipating his later publishing experiments, Eisenman submitted the original document, which is reproduced here, in an unprecedented square format, with notes running on the righthand side of the page (typed by then-student Anthony Vidler) and dozens of precise, hand-drawn illustrations. While the unusual use of all capitals for the text may hinder legibility, it looks great on the page; and that, one suspects, was as compelling a justification for Eisenman as any logical demonstration.

—Sean Keller
Keller is a visiting lecturer of art history at Yale.

New York 2000

Architecture and Urbanism between the Bicentennial and the Millennium Robert A. M. Stern, David Fishman, and Jacob Tilove, The Monacelli Press, 2006, pp. 1300.

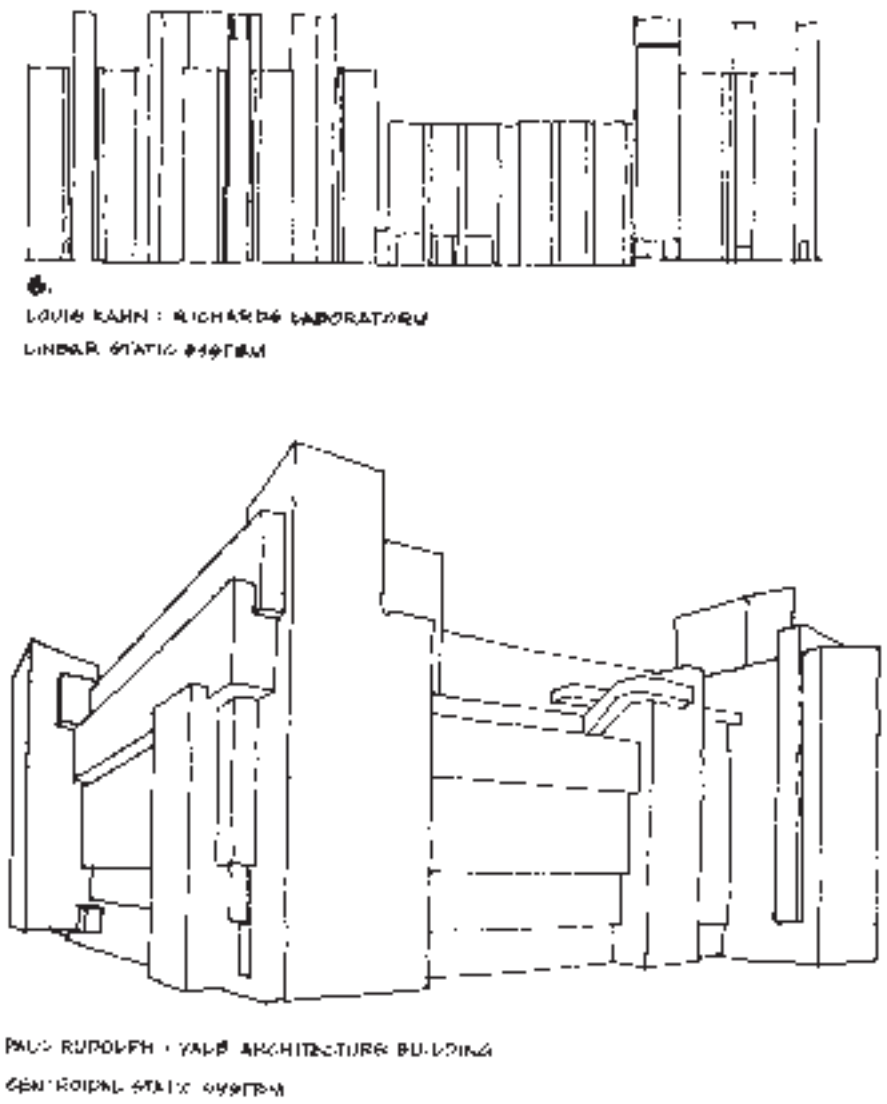
There is nothing quite like this book and its companion volumes in the recent literature of cities, certainly not in an American context. The even more massive "Survey of London" series, reaching something like 45 volumes under a general editor but with a veritable army of authors, reads more like archaeology than modern history. Robert A. M. Stern ('65) and his much smaller band of collaborators have produced something distinctive and lively, encyclopedic in ambition and heft, to be sure, but with aspects of a guidebook and a tone that is journalistic in its engagement with the material (not surprising, in that much of their primary source material comes from contemporary journals and newspapers). It has certain similarities with the great individual labors of antiquarian urban research, like Henri Sauval's eighteenth-century *Histoire et recherches des antiquites de la ville de Paris* or Theodor Hoffbauer's nineteenth-century Paris *a travers les ages*. The New York volumes are, of course, illustrated with wonderful photos, not prints and drawings. The current volume introduces the innovation of contemporary color photographs of buildings and projects, including the very generous treatment of small and unbuilt projects by younger architects and newer firms.

Since the sheer scale and apparent comprehensiveness of this undertaking preempts the usual critical game of "What obscure, but crucial, example or episode that I just happen to know about was unaccountably and inexcusably omitted?" the reviewer is thrown back on structural quibbles. Indeed, the question of how to organize such a mass of material so that it is not just accessible but coherent, is not without challenge. Chronological structure, which is already the overarching framework of the entire series, breaks down within the more compact periodization of individual volumes. The earlier volumes have generally been organized typologically, with a loose thematic overlay. This was true of the first two volumes: *New York 1900* (1983) and *New York 1930* (1987), although they already contain a separate chapter on "New Neighborhoods." By the time we get to *New York 1960* (in 1995), typology seems to have broken down as a comprehensive organizing framework (in the discourse and profession of architecture as well), and the authors adopt the place-based structure of neighborhoods and areas that is employed in the current volume. Interestingly, when in 1999 they circle back to *New York 1880*, they also return to the typological framework, raising the potentially provocative question of whether something more profound than the table of contents is changing in the midcentury, during and after World War II.

But despite its scope, this is not world history—or *Geistesgeschichte*—with some sort of overarching Hegelian master narrative or ax to grind. That, I suppose, is both the achievement of and possibly the ultimate reservation about the volume: the former, no doubt, for those who prefer their history with a plot, if not a hero and/or a villain. They will look, in vain here for anything like the sort of Marxist narrative that scholars like David Harvey or Neil Smith might bring to such an overview, although the movements and machinations of capital are very much a part of the drama. Nor will they find a manifesto, both retroactive and selective, such as Koolhaas produces in *Delirious New York*. There is in the current volume a decline and fall of the public man saga, a la Richard Sennett, which helps to set the stage for the more detailed treatment of projects and places (although the apparent revival of public life in the city is still only a subplot). The index—which is, after all, the only way to really navigate such a tome—is full of capitalized names and places, not concepts. This is, insistently, a story of architects and architecture, in which critics and criticism play a significant but, at best, a supporting role.

And yet the treatment of themes like public space may serve to remind us that for all the apparent objectivity and calm of its surface, other currents and stories may run just beneath that surface. In *New York 2000*, for example, the opening chapter is quite overt about the narrative of New York's late twentieth-century crisis and apparent revival, as well as the political figures and economic forces that provide the backdrop for the central drama of design and construction. Again, this will not satisfy those who would look for New York to be subsumed within an all-consuming (and all-explaining) narrative of, say, economic globalization. New York will, for these authors, remain the central and irreducible figure, comparable perhaps to London and Shanghai, but never a mere example of some larger set of forces flowing through urban history. But here may be the real crux, at least for the principal author of the series, Dean Stern. Just as his first book, an outstanding monograph on the architect and chairman of the Yale department of architecture, George Howe, might seem, in retrospect, to have scripted Stern's own career, could it be that the real plot and genre of this massive undertaking is somehow autobiographical? The stage that is set here in this epic saga of the modern city is the stage which the author would occupy; and the endlessly, meticulously detailed text in which the city is scrupulously, almost religiously, described, anatomized, and chronicled, is a new kind of love song in which the city is courted, embraced, and finally—if the ending is a happy one—possessed.

—Alan Plattus
Plattus is a professor at the Yale School of Architecture.



1. Drawing from The Formal Basis of Modern Architecture*, by Peter Eisenman, Lars Müller Publishers, 2006.*

Spring 2007 Events

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2.

UN Studio: Evolution of Space

The exhibition *Evolution of Space*, organized by the Deutsche Architektur Museum, in Frankfurt, on the occasion of the 2006 completion of the Mercedes-Benz Museum in Stuttgart, will be on view at the Yale School of Architecture Gallery from February 12 to May 4, 2007. The show highlights the efforts of eighteen years of UN Studio, founded by Ben van Berkel and Caroline Bos. It is arranged not according to typology or chronology but along a more personal line of development, focused on design standards, including construction, sensory experience, and organization. The gallery space will be converted into a three-dimensional graphic charting their work and highlighting projects such as the Moebius House and the Erasmus Bridge as well as the recently opened Mercedes-Benz Museum. The wavy perpendicular lines dividing the gallery space contain the various applications of these standards in a range of programs.

To UN Studio, the design model represents the most promising contemporary potential of architecture: it is generic and specific, abstract yet solid, simple yet infinite. Most interesting and challenging, it offers a potential route toward standardizing the nonstandard, thus offering a means to promote ambitious, visionary expressions of architecture beyond the purely incidental or highly personal. As van Berkel and Bos emphasize, "We have learned to see projects as public constructions and have organized ourselves as a flexible platform organization, in which a 'public scientist,' an architect as the cocoordinating, networking expert of the public realm, has replaced the former Baumeister."

Today, they note that the "architectural project has become abstracted, concentrated, and expanded, has become diverse, and has grown ever-more scale-less." All of this has happened through practice; to UN Studio, architectural inspiration and innovation are closely linked to concepts and work.

Symposia

Seduction: Form, Sensation, and the Production of Architectural Desire

The symposium "Seduction: Form, Sensation, and the Production of Architectural Desire" will be held from Friday, January 19, through Saturday, January 20, 2007, at Yale School of Architecture's Hastings Hall.

A decade of explosive development in communication and information-retrieval technologies, from Bluetooth and GPS to Blackberries and iPods, has produced a global datascape where the ability to access information anywhere at anytime is nearly ubiquitous. The alliance of this data-saturated scenario with similar advances in computational, material, and fabrication technologies requires the field of architecture to question its historic presumption as an embodiment of meaningful content, regardless of its specific posturing as icon, sign, or index. This symposium will explore how architecture is shedding its burden of communication in favor of new formal ambitions, including the customization of moods, the influences of sensation, and the emergence of a new species of irrefutably contemporary aesthetics.

The themes and speakers on Friday include "Making Appearances," with Herbert Muschamp, Peggy Phelan, Gregory Crewdson, and Jeffrey Kipnis, as well as a keynote by Sylvia Lavin. Saturday continues with "Practicing Seduction," with the participation of Henry Urbach, Hernan Diaz-Alonso, Kivi Sotamaa, Mark Foster Gage, David Erdman, and Peter Eisenman. "Forms of Sensation" will feature Roemer Van Toorn, Greg Lynn, Chrissie Iles, and Mark Linder.

The Market of Effects

The symposium "The Market of Effects," organized by second-year Master of Environmental Design (MED) students, will be held from March 29 to 30, 2007. The event will follow this year's Roth-Symonds Lecture by professor Mark Gottdiener of SUNY-Buffalo. Under the guidance of Dean Robert A. M. Stern and MED program director Eeva-Liisa Pelkonen, the event organizers will create a forum to explore how architecture practices have embraced the "Experience Economy," an "economic model...characterized by a progression away from subsistence commodities to a service-based economy, resulting in the trade of service experiences appealing to consumers' emotions and feelings."

The symposium features a diverse group of students and researchers from graduate programs across the country who will present papers on airport information systems, sound-mapping techniques, Philip Johnson's Crystal Cathedral, and the early work of Minoru Yamasaki, among other topics. These presentations will address the contemporary and historical dimension of spatial, surface, and material effects designed to appeal to individual taste and identity to construct a personalized point of sale via the built environment. Participants will include Winnie Wong (MIT), Bryan Boyer (Harvard), and Erica Robles (Stanford), among others.

Book Notes

Modernism and the Middle East: Politics of the Built Environment a book edited by Sandy Isenstadt and Kishwar Rizvi of Yale's art history department, based on the papers delivered at the School of Architecture's 2003 symposium "Local Sites of Global Practice: Modernism and the Middle East"—will be published by the University of Washington Press in the summer of 2007. The essays in the book address one of the most pressing issues facing architecture today, especially in the Middle East: the split between the increasingly global nature of economic and cultural relations on the one hand, and the sharpened sense of local identity on the other. This first book-length treatment of the development of modern architecture in the Middle East discusses a wide range of topics, from the development of Jerusalem at the turn of the twentieth century to that of Libya under Italian colonial rule in the 1930s, along with contributions on post-war Turkey and Iraq. The sites are drawn together by the single historical tension between international Modernism and local traditional cultures. The collected essays make evident the many intersections between architecture, economy, and political culture in a region that saw venerable customs swept up in the whirlwind transformations of modernity.

The School of Architecture's office of publications has produced a series of new books, which will be available this year.

The Yale Building Project: The First Forty Years is the first comprehensive history of one of the most important educational initiatives of the Yale School of Architecture. Every year since 1967, first-year graduate students have designed and constructed a building for a community-based client. This hands-on experience has been a unique achievement in American architectural education. Begun under the leadership of Charles W. Moore (1925–1993), the program originated in the context of intense social activism during the 1960s. The Yale Building Project has been a mirror for changes in American society over the past forty years. Initially, Yale students traveled to rural and impoverished Appalachia, where they built two community centers: a health clinic for a community afflicted with black lung disease and a recreation center on a lake in the coal-mining region of Kentucky. During the 1970s and 1980s, students built pavilions and recreational structures throughout Connecticut. Recently, the project has returned to its socially conscious roots, and students have designed and built affordable housing in New Haven in conjunction with Habitat for Humanity and Neighborhood Housing Services. The book represents a major archival effort to record these projects and to interview hundreds of alumni of the Yale School of Architecture. Documenting each of the forty building projects with drawings and photographs, the book also includes essays that situate the program within its historical and educational context. The book was written by Richard W. Hayes ('86) and with contributions from Paul Brouard ('61) and Ted Whitten ('01), among other alumni. It was edited by Nina Rappaport with photographic and archival organization by Marc Guberman ('08) and is published by Yale School of Architecture, and distributed by Yale University Press.

Building a New Europe Portraits of Modern Architects is being published by Yale University Press and the School of Architecture with the support of Herman Miller Inc. and Vitra AG to present the early writings of the architect, designer, and architectural critic George Nelson (1908–1986), who was a graduate of Yale College ('28) and the School of Fine Arts ('31). In 1934, when Nelson was a fellow at the American Academy of Rome, he wrote a series of articles published in *Pencil Points* in 1935 and 1936 about European architects and their work during the politically and artistically crucial years. Included in the book are twelve essays written by the young, aspiring architect on the following architects: Marcello Piacentini, Helweg-Moeller, the Luckhardt Brothers, Gio Ponti, Le Corbusier, Ivar Tengbom, Mies Van der Rohe, Giuseppe Vaccaro, Eugene Beaudouin, Raymond McGrath, and Walter Gropius.

The book includes a provocative essay by architectural historian and Vincent Scully Visiting Professor at Yale, Kurt W. Forster, about George Nelson, situating him in both an architectural and a cultural context. The publication is a significant contribution to the scholarship of Modern architecture, not only presenting three well-known architects—Le Corbusier, Mies Van der Rohe, and Walter Gropius—but also the work of many lesser-known practitioners from the turbulent interwar years when many careers were cut short by the depression and the ensuing totalitarianism. It brings to light the period from the perspective of an outsider who worked to bring modern European architecture to an American audience while influencing the editorial direction of *Pencil Points*. The book includes photographs originally published by the journal, researched by Hannah Purdy ('05), the book is designed by Pentagram and will be released in the spring.

Future Proofing is the second in a series that studies the collaborative process between architects and developers made possible by the Edward P. Bass Distinguished Visiting Architecture Fellowship. The book features developer, Stuart Lipton of Stanhope; architect and Davenport Visiting Professor, Richard Rogers of Richard Rogers Partnership in London; engineer Chris Wise of Expedition Engineering, in London, and architect Malcolm Smith of Arup in a collaborative design studio. The Yale students designed projects that would transform Stratford City in East London, the site of the 2012 Olympics, as a new community around a new transit hub. The students were encouraged to develop solutions for a future-proofing strategy of a minimum of 100 years, showing a robust thought process for sustainability and vital urban design. Edited by Nina Rappaport and Andrew Steffan ('08) the book is designed by Mgmt. Design, distributed by W. W. Norton & Company and will be released in the spring.

Poetry, Property, and Place, 01: Stefan Behnisch / Gerald Hines, was the first in the Edward P. Bass Distinguished Visiting Architecture Fellowship series. It features Bass Distinguished Visiting Fellow Gerald D. Hines; Saarinen Visiting Professor Stefan Behnisch; as well as those who participated in the studio research process. Students designed projects that would transform Garibaldi Repubblica, a neglected site in central Milan, into a vital urban place. Edited by Nina Rappaport, Markus Dochantschi, and Jonah Gamblin the book was designed by Mgmt, and was released in September 2006. It is distributed by W. W. Norton & Company.

1. UN Studio, Mercedes-Benz Museum, Stuttgart, Germany, 2006. Photograph by Christian Richters.
2. New publications from The School of Architecture available this year.

Green Futures

1.

With emerging materials and technologies for increasingly green agendas in mind, professor James Axley led a discussion at the school with associate professor Michelle Addington, and lecturers Thomas Auer (Transsolar ClimateEngineering) and Patrick Bellew (Atelier Ten) for *Constructs.*

James Axley: There is now a visible state-of-the-art in sustainable design that is pretty well understood in and even beyond the architecture community. What people don't know about are the leading edges, the things that are constantly changing, such as the emerging trends that go beyond the building scale and conventional wisdom.
Patrick Bellew: The interesting thing is still the different influences that drive the sustainability agenda. There are still relatively few projects in which the client sets up an absolute sustainability regime, although the number is increasing. It's normally up to the design team to come forward with the ideas. However, increasingly, it is legislation and benchmarking that's driving the majority of people toward larger-scale initiatives in sustainable design. We are even asked to look at large-scale community energy projects and transportation issues and it is remarkable how similar they start to become to Ebenezer Howard's Garden Cities, with clusters of communities where everyone can go by foot or on bicycle!
James Axley: Analytical tools for power distribution and transportation are well established and allow you to look at quantitative measures of success and actually predict whether or not you have an efficient power-distribution or transportation system. But how do we know how to analyze large-scale environmental issues? In terms of my interest in shaping environmental services, I'm thinking of projects where people are consciously modifying microclimatic variation, providing better outdoor air quality and the like. No one has a clue how to think about shaping ecosystem services—e.g., services such as microclimatic modification, water and air purification, soil creation and stabilization.
Thomas Auer: Wind is another element that also has to be widely considered in sustainable design in order to improve microclimate conditions and air quality. Transsolar does more and more wind studies in urban developments using computer models, because the moment you put a project into a wind tunnel, it's too late—it's all shape and design. In Berlin in the 1990s, all the buildings were modeled in a wind tunnel, but the urban design had already been defined.
Michelle Addington: One of the difficulties inherent in the practice of architecture is the way that we typically define the extents of a project. We tend to look at the boundaries of the project—whether it's a single-family house or a large-scale urban plan—as things that can be parceled off, because those are the things that we have domain over. But as projects and systems become more complex we have to recognize that we are not masters of these parcels anymore. Whether a house, a district, a town, or a region, we have traditionally demarcated a definitive boundary between what we have control over versus what we don't. The concept of the "zero-energy building" is one that presumes we can truncate energy systems according to the boundaries of private property and then neatly account for all of the energy consumption and generation within the parcel. But this is the antithesis of how these systems and networks behave and ignores their interconnectedness at scales both much larger and much smaller than our "parcel." What we have to think about is how we can begin to mediate between these multiple scales by considering that our design choices should be actions that strategically intervene in these networks, rather than attempt to control them.
James Axley: There is a romantic belief that Fredrick Law Olmsted could envision the work on one small-scale project as both a small- and a regional-scale move. Of course, he was working as the City Beautiful movement was emerging, so there was a larger cultural attitude about taking responsibility for the community. Hopefully, we can begin to believe that as we change cultural attitudes, designers will see that they have an ability to affect the larger-scale community, urban, and regional environments, and this territoriality might resolve itself.
Patrick Bellew: London has made enormous changes to its construction legislation in just two years. The mayor, Ken Livingstone, has required that all buildings meet 10 percent of their projected energy demand from renewable energy sources on-site. This has led to the recognition by developers of the benefits of reducing demand. Next year's adjustment will increase this target requirement to 20 percent, with combined heat-and-power systems being mandatory and partner with neighboring development schemes. The mayor is trying to drive a completely different attitude through the private sector without spending any government money. It's a slow beginning toward an organic energy structure. Unfortunately, many people have caught on to the fact that the most inexpensive way of delivering renewable energy is through biofuel. But the idea that every new building is an autonomous unit running on wood-chip-based biofuel is quite a dangerous prospect in a metropolis like London, which has enough transport issues without adding fuel distribution by truck to all buildings. I heard one developer recently threaten to have biofuel delivered by horse and cart just to make the point that it is a rather retrograde step in a city like London.
James Axley: There seem to be two emerging trends: one is driven by policy, policy that affects sustainable designs beyond the building scale, that is, at the community, urban, and even regional scale —the scale that is the main concern of the environmental community. On the other hand, architecture has long relied on exemplary projects to move to solve new problems—exemplary urban-scale, sustainable projects are just now emerging from practice.
Thomas Auer: Policy takes away creativity. People just think about how to get around it. I think the USGBC forced policy and categories like LEED with a very holistic approach, but it is not a design tool, it's a veritable checklist. LEED did create momentum. The big universities and also many firms say that we have to show leadership with regard to sustainable design, and I think that has more worth than all of those policies. Google, for instance, announced that they are going to install a 1.6 MW photovoltaic system that will provide 30 percent of Google's electrical energy consumption. We are working on the new headquarters for Manitoba Hydro, in Winnipeg, Canada. Manitoba Hydro set up the goal that the building would be the most energy-efficient office building of that size in North America.
Patrick Bellew: Corporate social responsibility has become a very big deal. LEED offers the opportunity to set up a degree of competition between companies. It started out a few years ago that having a Silver building was quite a challenge, within a year Gold was the new minimum standard to be seen to be very green; now you have to be Platinum to be really green. This is symptomatic of the rapid change in attitudes and values. It shows the power of having a consistent yardstick to measure everything against. Exemplarity is not something that can be tested or analyzed properly. There are loads of buildings that claim to be green but are not—a phenomenon known as "green wash"!
James Axley: I want to try and draw a distinction between policy that's building-scale stuff—codes and standards, LEED assessment—and policy that impacts every building but has a larger agenda. Rick Levin, president of Yale, set the objective to lower greenhouse gas emissions on the Yale campus by 10 percent below 1990 levels by 2020—a target set below the nominal Kyoto Protocol targets. That's a policy not directed to any building, power, or transportation system, although it has serious infrastructural implications. Yet it has led indirectly to the use of shallow geothermal sources, virtually a free power plant underneath Yale's campus. So campus planners are now looking much more seriously at tapping that resource.
Michelle Addington: This is an important distinction. The practice of architecture is heavily governed by prescriptive policy. Being code-driven is really tying our hands, preventing us from aggressively reducing energy by presuming that the best practices are known and generalizable. So many of the policies are concerned with the new model energy codes, which are extremely prescriptive. What we need to move toward is a policy framework that is more about objectives.
James Axley: Building codes and standards often include the caveat that designers may use a performance approach to design. This presumes that there are tools to evaluate performance in some reliable way and, furthermore, that the profession is adept at using these tools. Within the School of Forestry and Environmental Studies, if you ask about policy, social equity is a major issue with regard to sustainable development. That social orientation doesn't exist in the architecture community. If the architecture field begins to see sustainable design as having a social-responsibility dimension, then these questions about territory will begin to disappear.
Michelle Addington: In 1999, the National Research Council published *Our Common Future*, concluding that "even when the political will necessary for sustainable development has been present, the knowledge and know-how to make some headway often have not."
James Axley: Turning our attention to "below the building scale," even to that of the invisible, when you begin to look at the computational fluid dynamics of an urban environment, especially those of a building, you become very interested in the smallest detail. The molecular dimension and nanoscale can even have a big impact on sustainable design. One area that has been improving is computational fluid dynamics. Low-e coatings on shading devices are common practice in the work of Transsolar but are underinvestigated in the U.S. The elements that affect details—invisible details—become a real challenge to present to students in courses. What other smart materials are sitting out there, ready to have some impact on sustainable design?
Michelle Addington: The use of smart materials really foregrounds issues of scale, boundary, and domain. A new material such as electrochromic glazing, which has programmable light transmission, tends to be directly inserted into traditional applications such as curtain walls, as if it were simply a replacement rather than a sophisticated and highly specialized system. I think our intention of trying to adopt these into our standard lexicon isn't going to take the concepts very far. The idea that it comes into our normative material palette is about to reach its limit. It's going to force us to rethink the size of things that we design and return to this issue of what's invisible: how do you start to design phenomena that are not visible when the things that we make—walls and floors—are inherently static artifacts at radically different scales?
Thomas Auer: It doesn't change the architecture, but it gives the design of a building a much greater flexibility. When somebody has a great idea and comes to you with a serious problem and asks, "Can you solve this?"—that's the moment when you think about smart materials. This happened, for instance, when we worked with Helmut Jahn at the new Bangkok Airport, where we used for the first time a low-e coating on a fabric structure.
James Axley: How do you bring students close to the leading edge of emerging trends, when those leading edges are changing constantly?
Thomas Auer: The physics will always be the same; their primary responsibility should be to learn those principles.
Patrick Bellew: Perhaps we should avoid trying to teach architects to be engineers. The most important thing is a commonality of language. The question is, how much more engineering-speak do you need to teach an architect to start that conversation?
James Axley: There's a certain irony in the so-called systems integration course commonly required in architecture schools. Currently, in North America, designing a completely air-conditioned building represents an architectural challenge. In addressing this challenge, students grapple with the problem of integrating lots of duct work into a building. But at the same time, I think all of you are trying to convince students to eliminate the ducts altogether!
Thomas Auer: Basically, we shouldn't consider sustainable design as something exotic. It should be as common as structures.

1. Helmut Jahn, Bangkok Airport with Transsolar ClimateEngineering. Photograph courtesy of Transsolar.

Fall Lectures

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The following are excerpts from the fall 2006 lecture series at Yale.

Charles Gwathmey
"Renovation of Paul Rudolph's Yale School of Architecture Building and the New History of Art Addition"
Wednesday, September 6

It is a journey for me to come back to Yale and hopefully realize a project that is dear to my soul. I graduated in 1962, when the Art & Architecture Building was under construction. I actually worked for Paul Rudolph at night and on weekends, rendering perspectives of this building that he worked on so intensely both because he wanted to make it his greatest building and also, I think, a little bit because he wanted to be acknowledged as an architect as important as Louis Kahn. Those were interesting times, watching Paul go through all of the mini schemes he did of this building.

With respect to the new History of Art Building, the faculty was insistent that, even though this was an addition to the Art & Architecture Building, their department would be acknowledged architecturally, which is a hard thing to make—an addition and an image: to actually reconcile the dynamics of this building, which we all know; to make a connection and also a piece of architecture that acknowledged the faculty as a critical part of the university as well as an integral part of the School of Architecture. There's a mutual respect and synergy, which is important, also when I was a student. Historians Bill McDonald and Vince Scully were a great part of the architecture school, and it's wonderful to have the department back as an integral part of the whole project.

There are some green architecture components that are very important to the complex. And the three things that are critical programmatically were that the double-height library space be restored to Rudolph's original piece; that the monitors, which have been covered on the Chapel Street side yard, be reconstituted to bring natural light down to the basement and sub-basement, and that the penthouse be restored to its original setup and have its fantastic views maintained over the campus. The fourth thing, and, for us, the most critical in determining the diagram, was that the north-facing studio windows be retained and have their views across the Yale campus.

Massimo Scolari
Davenport Visiting Professor
"Crossing Architecture"
Thursday, September 7

So what sense is there today in asking whether this or that architect, this or that architecture, is more progressive and in the name of what scientific criteria of advancement? With what kind of innovative daring does modernity expect the chaos of the actual world to be translated into architecture? Would it not be better to start asking ourselves whether in fact a more authentic principle of truth might be established by opposing all that chaos, and whether the most fitting answer to the question of utility might be in the expression of beauty?

What can we say to a student who, in asking, "What do you want me to do?" is giving up on himself; or who, faced with the evidence of an error, argues, "I understand I am wrong, but I like it"? All this makes me wonder what the cost of freedom may be to truth and how much truth is being denied in the name of individual liberty. For how long can one forgo the truth? What is the meaning of those tendencies that use the classical orders, and for which historical distance do they have an absolute value? Or again, what kind of progress is expressed by a language that implodes self-referentially, excluding all possibility of comprehension and normal description?

The link between memory and the architectural project cannot be severed in the name of a modernity that deliberately wants to forget. This would be foolish and would offend the ability of our brain, which is incapable of inflicting amnesia upon itself. In a collective language, the relationship between architectural form and the memory of its meaning cannot be substituted with subjective moods.

Theory has often labored to understand the origins of architecture, an art that, unlike painting and sculpture, was not a direct imitation of nature, even if many people saw trees as the source of inspiration for columns, the human face for capitals and moldings. Nowadays architecture, too, seems to have become an art of imitation, as painting and sculpture was in the past. But it is a curious kind of imitation because it reproduces only the sufferings and convulsions of nature, its telluric cracks and alluvial disarray. The examples held up as paragons in architectural magazines are like so many shiny tumescences of matter that recall nothing so much as photographic enlargements of mysterious diseases. The new poetics of collapse and disintegration offers us an overturning of all aesthetic norms, because everything that architecture has always feared and shunned is now sold to us as desirable and modern. And in the end, the only thing that links the loss of the original form with the fragments in which its meaning is dispersed is an overwhelming sense of desolation.

Jeffrey Kipnis
Brendan Gill Lecture
"A Basis for Discrimination for Current Speculative Architecture"
Thursday, September 14

Where I think I lost my temper is the Eyebeam competition, because all I heard from my colleagues—and forget newspapers or students—is how Diller + Scofidio and Thomas Leeser ripped each other off, that these two projects were so much alike that it was just jumping on the single-surface bandwagon to the point where it became an embarrassment. Of course, that's complete nonsense. Not only are these not the most important single-surface buildings, but they engage in a very interesting debate. You have to know that there are, in my collection, sixty of these projects. And so the real issue is, what are they after? Why all of a sudden does a ribbon surface, which is neither tectonic nor semiotic, capture the imagination of a hundred architects all over the world, for almost a decade now, without a single significant building being built and not one piece of significant criticism about it?

I, of course, am interested in architects and what they say about the work, and that's an important part of my thinking, but I'm not obligated to it. I'm obligated to think of the critical and fertile possibilities of the work that comes out.

By removing itself from the ground so much, the Villa Savoye opens the door to a conceptual formalism. I believe Le Corbusier was interested in a political project, and I believe this diagram is best understood as an ambition to produce an equal potential space, to neutralize the ground as a datum, hence the rooftop garden—all of which would be an attack on the futile legacy of ground as land, so you can have the ground as a datum and equalize all the data and install something like a democratic thinking.

Freedom is the process of disestablishment; freedom is removing the weight of unwanted authority. It's actually a confederacy of sensations; freedom doesn't belong to political thought. There's freedom of expression in music, there's freedom of speech, there's the feeling of freedom driving on a road and wearing jeans on a Friday. There are no theories of freedom; there are no varieties of freedom. The idea that architecture can take up the problem of a social project again is not by installing democratic diagrams but by relieving the way it exercises unwanted authority.

Kenneth Frampton
"Structure, Identity, and Existence in the Work of Team 10"
Monday, September 18

In retrospect, it seems to me that Team 10 was one of those last moments in Europe when it was still possible to envisage a more or less consciously planned pattern of sustainable land settlement and urbanization before the Pandora's box of late consumerist capitalism, driven by the universal ownership of the automobile, finally sealed the environmental fate of the species. Figures like Shadrach Woods and Giancarlo de Carlo were particularly aware of this apocalyptic threshold, hence the enduring pertinence of De Carlo's Terni Housing, Woods' project for Hamburg Stielshoop and Karlsruhe, and also, I would say, Frankfurt Romerberg rather than the realized Free University. Bakema's Tel Aviv and his Pampus Plan for Amsterdam were surely both brilliant neo-Corbusian proposals, but such undertakings presuppose socialism and command economies that not even the Chinese are able to muster today. The Smithsons were extremely talented architects and their Coventry Cathedral must now be seen as one of the lost masterpieces of the mid-twentieth century. Their one great work is obviously *The Economist* building. The Smithsons' Fold and Cluster houses were pre-consumerist by definition along with the poetic, existential vision of Nigel Henderson. All of this was before Guy Debord's narcissistic *Society of the Spectacle* finally took hold.

Tom Wiscombe
Myriam Bellazoug Memorial Lecture
"Parts and Wholes"
Monday, October 23

An uncoordinated set of building systems drives me to want to do new kinds of architecture. This is something that we see in 99 percent of buildings, something that we're all familiar with. I just love the image because it's so ludicrous, the way we get away with this as architects and builders. It's a kind of bearing-wall cinder-block structure, which clearly was engineered, and then there's a kind of ductwork that has no coordination or integration of the structural system whatsoever. In fact, you could even argue that it is detrimental to the structural system. ... It leads us to think about building systems, it leads us to think about tectonics, and it pushes us toward integration and composite forms, rather than layered or collaged systems.

The principle of emergence is at once a kind of magical concept and also a very hard scientific concept. It's the process of generation of unexpected but coherent structures, patterns, and properties from a group of interacting and often very simple parts. In an emergent system, it is impossible to predict the behavior of the whole by examining the behavior of the parts.

The interest here is in a kind of feedback loop, which has meant that we can't just make something and it's finished; we have to make it iteratively and feed it information during the design process. This brings me back to the idea of computation ... what part computation has in the design process. What I've realized is that computation, using algorithms, is extremely useful at the front end and then at areas during the design process where there's something missing or we need other information. But there's a constant feedback between things that are auto-generated or algorithm-based and stuff that's hands-on and analog.

Marc Tsurumaki
Louis I. Kahn Visiting Assistant Professor
"Architectural Opportunism"
Thursday, October 26

Our firm's work from recent years is a way to structure a thematic font regarding issues of limit and restraint to begin to trace a methodological consistency through a series of projects that are extremely diverse in terms of scale, typology, and context. The methodological approach I'm referring to here can probably be best described as an opportunistic engagement with limits. The idea that the restrictions of the project—those elements of the parameters of the work that are often understood as the greatest impediment to the design—can in fact be recast as the generative potential, the very catalyst for architectural invention. What this means is taking seriously the prosaic and often banal constraints, the

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complex network of economic, technological, political, and programmatic parameters that invariably circumscribe any architectural project. Maneuvering tactically within these limits, architectural production is then recast as restricted play, a pleasurable manipulation of rules and boundaries. In this way, the inherent logics and rational trajectories are pushed to the point at which they render a potentially irrational but productive excess of precipitated paradoxical effects and possibilities.

Whereas mixed use itself is certainly not a radical concept, what we want to do—and have been exploring in a series of iterations of the project in a mixed-use high-rise in Miami Beach, rather than the conventional approach of simply stacking the programmatic components on top of each other—is to look at the ways in which spatial overlaps and vertical interpenetrations could begin to induce communications and slippages between the different layers of program: between public and private and between commercial and residential.

The Lewis brothers and I come from the transitional generation of architects who were initially using hand-drafting techniques but also had to grapple with the radical translation into different technologies. There's a desire to draw on both of those techniques as much as possible and to produce things that are not so easily recognizable as coming from one or the other. ... I think what we've begun to study lately—in dealing with the scale of the projects and the fact that we're unable to intervene in the construction in many ways—is how we can achieve some of the effects we were generating through really hands-on methods of construction and basic ways of putting things together into more digitally manipulated conditions.

Kazuyo Sejima
Paul Rudolph Lecture
"Recent Work: Kazuyo Sejima + Ryue Nishizawa/SANAA"
Thursday, November 2

Both the steel and the glass in the Toledo Glass Museum Pavilion are very thin. Normally, in the wall, we cannot see, but here we decided to use the transparent glass so that every between-space in the wall can be seen, and this makes clear and stronger each independent program. In the glass box there are different spaces, different programs in the building, and everywhere people can see the relations between different programs and spaces.

Our idea for the O Museum is to make an open museum. To realize this, we are maintaining a distance between the galleries. Museumgoers should pay to enter, but the public zone is a free space, so we must make some soft barrier between two functions. We decided to use a perimeter for the public zone and also try to make an open museum. Keeping the distance means that at every perimeter you can always see something going on in the museum through the between-spaces, and also from the museum zone people can always see the public zone and the city. This also makes it possible to change the size of the museum. Because all of the galleries face the public zone, the curator can change the entrance of the museum. We try to make an open museum and make the buffer-zone height as low as possible to give some continuity to the daily landscape; at the same time, the museum is a very special program and function within the city, so we try to add another scale.

For the New Museum, we must respect the Manhattan height regulation; but we also want to keep some independence, so we try to bring in some movement, which also makes it possible to break the boxlike feel. Basically the museum needs a closed box and the property is not so big, so we must stack the whole galleries and other functions. But instead of it becoming a very big, closed box, we would like to open it to the city. In this museum we really want the visitor to enjoy the different heights of the Manhattan rooftops.

Stephen Kieran
"Kieran Timberlake Works: Our House, Your House"
Monday, November 6

My partner and I have struggled over the years with what we see as a decline in the ability of our profession to move directly from intentions and ideas to form and substance. We don't think there is a blue river running between form/substance and ideas but rather a very wide, murky brown Mississippi between our vision of the world that we want to create and our ability to actually make that world.

One reason underlying that deep-marking river is the profession itself, and this is one that we can lay squarely at our feet. It is a sense of what I call the "otherness of designing and making," as opposed to a fifteenth-century architect like Brunelleschi who admittedly didn't have any systems in his buildings, but he himself was everything. He built the building as the builder, he designed the building as the architect. He was a product engineer who designed lifting devices to make the building, and he was a material scientist extraordinaire in terms of masonry and iron. Instead of somebody who was hands-on and did all of those things, we have the specter of hands-off art in the twentieth century: Man Ray phoning in directions to a remote location to make a work of art; the genesis of reinstituting the craft of architecture to control the relationship between intention and actual fabrication/making lies in this device.

There is a formula that my first boss, John Rauch, Bob Venturi's partner back in those days, noted: if you want more quality and more scope, you have to spend more money and more time—and those things are proportional. And somehow to change one, you have to change the other. We increasingly go before clients, including the Yale Corporation, who live in a different world than we do. They don't live in a world of declining productivity; they live in a world of increasing productivity. And they are telling us that we have to increase quantity and scope out of all proportion to cost and time, and that we need to do that in environmentally responsible ways as we move forward.

We need to look at ways in which we don't take an inherently inefficient vehicle and attempt to make it environmental by putting a hybrid engine in it. We really need to look in more revolutionary directions. ... This is a world and a part of our responsibility, the ER part of that quality equation, which we need to begin to make any headway, and part of that is through off-site fabrication.

Gregg Pasquarelli
Eero Saarinen Visiting Professor
"Versioning 3.0"
Monday, November 13

SHoP is not a typical architecture firm, not because we are special or anything but because we really wanted to try to question what it meant to have an architectural practice. More than design for us, it was about inventing a new kind of practice.

We tried to think about this idea of using difference and the impact between the relationship of slight changes in a design object and understanding where those lead. What it came down to was that it was never about the form; it was always about how it was made and what it did that mattered the most.

It became about questioning the notion of plan, section, and elevation as the proper way to draw. These were the best methods that architecture could use to deal with the issue of a very complicated, three-dimensional idea. As architects, we convert it into a two-dimensional abstract drawing system and hand it to somebody else to recreate, not only into a three-dimensional but a four-dimensional process of assembly over time.

The natural next step for us was to start to think about how we could move into the client realm, because if we wanted to use this performance-based design, were there other models we could consider for how we could practice as architects? We were giving all of this energy, we were figuring out the technology, we were trying to help with the design, we were making these things work and making them money—what could we do to become a part of that? So the first time that we were able to do that was with a building called the Porter House in the Meatpacking District of New York City.

The second most important thing we have started in the office is the ability for anyone who works at SHoP to also own these buildings. ... We are not talking about huge amounts of money, but it is really a change in attitude and in practice, and we think it is something that is important. It is about fighting the cycle of mediocrity.

So the whole reason we have tried to get involved in development is to try and change this relationship at the top. But it is not easy, and I will tell you why: architects are very averse to taking risk.

Any time there is a huge technological shift it means that there is opportunity. So what do we do as a profession with that opportunity? Do we just continue to work for the hour, do we continue just to produce images, or do we really partake in the making of culture and in making cities better places to live and getting people excited? It is time to go out there and make architecture more relevant than it ever has been.

If you can start to build that flexibility into the way you think about it from day one, you have a much greater chance of getting your vision put forward. By embracing that aspect early in the process as you move forward, you are much more likely to get the buildings that you want built.

Elizabeth Diller
"I.O.U."
Thursday, November 16

I want to remind you that I promised you a lecture on Lincoln Center last year; when I came I was totally unprepared, so I told you that I owed it to you. Thus, here is the "I.O.U." lecture.

We are accountable to the city because we are using city funds. So we regularly have to speak to the departments of City Planning, DOT, Cultural Affairs, Parks, Landmarks, and a special task force under Deputy Mayor Harris. We're also accountable to community boards and local business groups. This is the Upper West Side, and it's very carefully regulated in terms of anything that happens. We're also accountable to preservation groups like SHPO, DOCOMOMO, and Landmarks West, as well as to professional groups. And we're morally accountable to the academic community. The publicness of this project requires many targeted presentations, and I've shuffled a couple of them together.

To the preservationists: We're on the same side. We believe 1960s architecture is vulnerable to the poor judgment of developers and uninformed clients. But we're caught in the equation "survival = change." We hope someone watches over our work fifty years from now the way you have over Lincoln Center.

To the professionals: After already sustaining painful rounds of value engineering after each phase, we have to see what's left after the bids come back.

To the academics: The ghosts are hovering, yet the testosterone level is clearly lowered. The challenge for dissidents like us is to negotiate this complex network of forces that it takes to make significant changes in New York. We've learned to speak in many tongues.

—The lecture excerpts are compiled with the assistance of Marc Guberman ('08), Alek Bierig and David Sadighian (both Yale College '07).

1. Charles Gwathmey
2. Massimo Scolari
3. Jeffrey Kipnis
4. Kenneth Frampton
5. Tom Wiscombe
6. Marc Tsurumaki
7. Kazuyo Sejima
8. Stephen Kieran
9. Gregg Pasquarelli
10. Elizabeth Diller

Advanced Studios

Massimo Scolari

Davenport Visiting Professor Massimo Scolari, with Andrew Benner ('03), sited the studio on the northern tip of Venice's Lido at San Nicolo, with sixteenth-century fortifications, an abandoned military compound, and what was until the jet age Venice's airport. Students were challenged to develop a set of design principles abstract enough to translate between three scales—a plan for the area, a flight clubhouse for amateur flyers, and a piece of furniture for the club—the students' approach was tested by forcing them to think about the design in a continuum.

After researching the history of the region, studio participants visited the site before completing an urban analysis. At midterm they presented their urban plans with siting and massing analyses, varying from a fly-in resort, housing for the elderly, year-round residences, and dense development with grand avenues to a movie-production facility.

At the final review they presented their urban plans with the addition of the clubhouse design and the chair, which they designed and fabricated in three weeks, to jurors Karla Britton, Peter de Bretteville ('68), Peter Eisenman, Kurt Forster, Leon Krier, Alan Organschi ('88), Stanley Tigerman ('59), Claire Weisz ('88), and Guido Zuliani. Some students chose to integrate the control tower and hangars into the club building while others wove the club into the urban fabric. Some designed more singular structures hovering between the developed areas and the airfield. The stylized 1930s design of the original airport structure was often absorbed into projects, combined in a resolution of historical and contemporary forms.

In a lyrical composition, Tim Newton grouped the club, tower, and hangars together on the edge of a new canal, forming a gateway to the airfield. While to some jurors the design seemed nostalgic, it evolved from what Scolari encouraged as a method for the students to find their personal passions and poetics. Greg Heasley reconstructed a berm that was part of a historical fortification on the site with the building and tower situated above, the hangars within, all bordering on a promenade. Eisenman thought the building was the cleanest, coolest project. Gregorio Santamaria used color to differentiate the functions in a minimalist expression, while Sam Roche created a proportional axial plan in a classical revival scheme.

Joe Smith developed an internal logic in one structure, with the hanger, club, and control tower raised on a podium. For Eisenman, the singular volume was rigorous, and the elements fit together into a holistic form that Smith likened to a souvenir snow-globe version of the site, enhancing its identity. A fabric skin could be used for film projections, linking Smith's concept to his Cinecittà-type master plan concept.

At the smallest scale, the chair designs explored materiality, ranging from Heasley's tensioned fabric to wood in a winglike design by Newton and a wood-and-steel frame chair by Clinton Prior. Other chairs were conceived as multiples—capable of being singular but also forming benches or assembly seating for the airport lounge. The implementation of numerous techniques, from hand drawing to computer rendering and fabrication, liberated the students to explore design strategies in a multilayered approach.

Peter Eisenman

Peter Eisenman, Louis I. Kahn Visiting Professor, with Ariane Lourie, investigated Gilles Deleuze's notion of the figural as an alternative to the current focus on iconic architectural production. The studio brief was to design two railway stations in Pompeii, whose ancient city walls could be characterized by a distinct ovid shape. If the dominant oval of the city center could be considered a strong figure then a strategy to disrupt its iconic stature involves the articulation of partial figures.

Deleuze's notion of the figural provides an alternate diagram whose resultant figure cannot be read back to an original diagram but rather erupts from a combination of forces latent in the work itself. The studio tested the hypothesis that partial figures, could begin to disrupt an iconic reading of the city. The projects each framed the ancient city in a new series of partial figures, which countered the possibility of a close reading.

The students worked in pairs, presenting their projects to the final review jury of Harry Cobb, Jeffrey Kipnis, Leon Krier, Emmanuel Petit, Alan Plattus, Ingeborg Rocker, Massimo Scolari, Stanley Tigerman ('59), Anthony Vidler, Mark Wigley, and Guido Zuliani. Their work began with an examination of the varied urban fabric of ancient and contemporary Pompeii, locating the form of the conflicted Greek, Roman, and Etruscan grids, the misaligned and doubled decumani, and the location of its city walls within a field of forces, producing diagrams of alternative urban matrices.

The projects explored concepts of weaving, threading, diagramming, and enhancing trajectories of motion, making voids, cuts, and passages through the city as an archaeological site, and articulating figures and partial figures. Ayat Fadaifard and Sallie Hambright proposed an alternate urban fabric woven from Pompeii's multiple city grids; partial figures evolved from this fabric, binding the old and new cities. Wigley thought that weaving, as a force field, was not a way to integrate the building, and the site as "the vertical is disparate from the horizontal. If the layers were thicker, then the weave could be worked in the grain so that you could slide inside the geology."

Others found ways to exploit the topology, such as Jason de Boer and Jeremiah Joseph, who reconceptualized the ancient city walls as generative voids that wrap, fold, and reframe the ancient city, making a transition of void to figure and moving from indexical to architectural form. Serra Kiziltan and Neil Sondgeroth deployed the unstable decumani's rotating force to stitch together the old and new cities, with crossing lines forming a methodology using rotation and oscillation in a system of mapping architecture and archaeological layers. The project would create an atmosphere for the public in which the relationship of part to whole would produced anxiety. Soo-hyun Kim and James Tate envisioned a passive framework around the city whose welts and scratched surfaces counter the decisive archaeological cuts that delineate the ancient city. While projects explored the figural and partial figure, Wigley emphasized, "To be a conceptual and theoretical architect, you have to detail."

Gregg Pasquarelli

Gregg Pasquarelli, Eero Saarinen Visiting Professor, with John Eberhart ('98) as well as Steve Sanderson and Fredrico Negro of SHoP Architects, organized a studio on the technique of "versioning" that uses digital procedures in nonstandard practices in a system that vertically integrates the process. The students were asked to design a sports stadium using parametric modeling, which builds explicit relationships between things from abstract values, programs, geometry, or combinations therein to design a system from which to build.

The studio integrated structure, design, and program developing models that had to respond parametrically to two variables: the sport being viewed and the context of the stadium itself. Each student organized their stadium in spatially diverse ways pushing the limits of stadium performance criteria with additional programs. The context and site was absorbed into the model that combined program, structure, and skin into an occupiable thickened space.

After a trip to England where they met engineers at Buro Happold and Arup Sport and visited new stadiums, such as Arsenal and New Wembley, and after studying other prototypical stadia and participating in workshops on various software such as Revit, Rhino, Catia, and GC—the students in teams of two developed schemes for a sport and site of their own choosing. In one model they developed four rapid prototyped sectional models of the various stadia permutations to critique the arrangement of the design's components and their interdependencies. Students presented their final projects to a jury comprising Vishaan Chakrabarti, Anna Dyson, Douglas Gauthier, Keith Krumwiede, Marcus Lee, Ed Mitchell, Federico Negro, Philip Nobel, Lindy Roy, Steve Sanderson, Craig Schwitter, and William Sharples.

Issues of the role of the stadium in the city, hybrid programs, and scheduling were the focus of Young-Jin Lee and Vincent Wan's project for a single-surface soccer and baseball field, including a university dorm. Hotels and leisure spaces were inserted into Jeff Richards and Seung Namgoong's box-shaped structure around a carved-out interior space for the stadium supported by a structural diagrid.

Other projects focused on how parametrics can direct form: Khai Fung and Ayumi Sugiyama's tennis stadium used the parametric model to incorporate parts into the whole using an aesthetic principle that resulted in a seductive, synthetic donut shape. For Nobel, "The beauty of the project took over. You need to look at the criteria more." Gauthier thought that they could have taken another position: "Our genetic model has such power to create beauty, you could give us any parametric and we will give you beauty."

Jean Suh and Weston Walker devised a scheme for a soccer and aquatic center with structural tubes within a framework winding around the open field, beginning with parameters to find the form. The flexibility allowed for invasions of program that would work off the tubular systems in linear bands. To Schwitter, the extrusion needed simplification and rationality. Others invented programs, such as the vertical golf course of Karl Mascarena and Katherine Corsico supported in a mesh scaffolding with layered platforms, which Chakrabarti thought was "fantastical," but noted that, "actually, these kinds of projects are happening."

Marc Tsurumaki

Marc Tsurumaki, the Louis I. Kahn Visiting Assistant Professor, chose a resort lodge at Everglades National Park in Florida as a vehicle to explore the role of ecological and programmatic constraints in catalyzing architectural invention. The juxtaposition of the program with the issue of how to inhabit a protected ecosystem is an age-old contradiction in the national park system. The students negotiated the complex network of technology, environment, site, and economic formulas to generate new spatial and material possibilities while embracing the paradoxes of the site.

The conflict between man and nature, experienced firsthand by the students on their trip (where they used all modes of transport), provided them with new ways to design environmentally sensitive architecture in a liquid terrain of shifting landscapes. After visiting with park employees and researching the history of the ecosystem and the park service's history in the Everglades, each student selected their site, some on that of the former Flamingo Lodge, which was damaged by a hurricane. With 100 rooms, a visitor's center, and public spaces, the lodge was a static element within the natural flux. The students were challenged to address these tensions with spatial, material, and programmatic possibilities in a flexible framework. They presented the results to a jury of Sunil Bald, Andrew Benner ('03), Peggy Deamer, Karen Fairbanks, Keith Krumwiede, Joeb Moore (MED '91), and Joel Sanders.

The diverse sites, in their topology and adjacencies, influenced the students' complex designs. Several of them reorganized the network of facilities such as lodges, campgrounds, and the visitor's center according to new principles of habitation, density, overlapping functions, and hybridizing the building and landscape. A number of students, including Anya Grant, engaged the northern edge of the park along the highway, making the boundary permeable to the park. These projects invoked the productive friction between infrastructure and tourism. Others sited their projects at the interior of the park and wove vehicular tourism together with the lodge.

Some projects were elevated, such as that of Heather Loeffler, whose series of raised courtyards above the flat landscape integrated the environmental tectonics of ventilation shafts, skylights, and open corridors. Moore was fascinated with the concepts of artifice and publicness in contrast to the desired privacy of hotel rooms. Brook Denison built his hotel above the tree line with a processional loop from the ground up to the hotel rooms on a single loaded corridor. Dean Robert Stern thought it had the potential to be like a Lapidus hotel, "where the guest's

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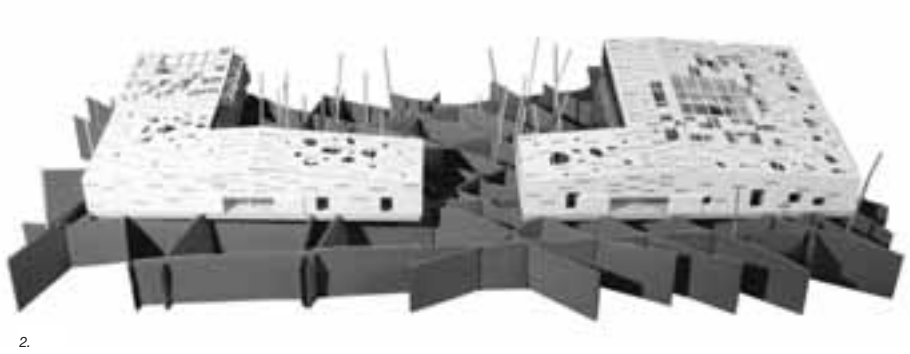

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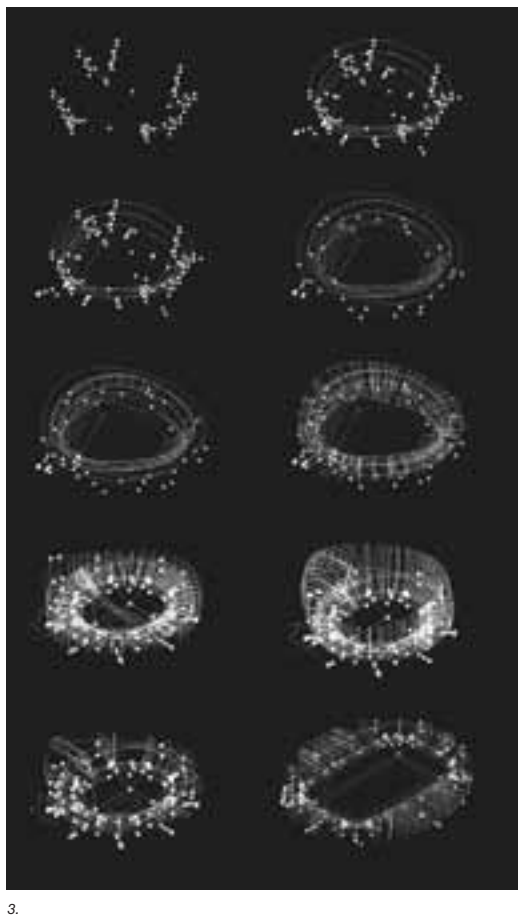

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experience was orchestrated."

Others worked to merge the project with the landscape: Geoff Lawson combined a public camping experience with the lodge as a private experience, a building that stepped down in a set of terraces and a sustainable water filtration system. Moore thought that Jeff McBride's hotel fabrication system with modular triangular panels, had the aspiration to be multisensory. Some integrated water throughout the program, such as Gabrielle Brainard, whose series of piers and pools with platform elements were situated adjacent to each room, rather than seeing the water only in the distant view. Allen Slamic's water-channeling system created infrastructural arteries, with the hotel extended across the trail. As a whole, the jury was struck by how the projects constructed new perceptions of the wilderness with new programs, landscapes, bodies, and buildings.

Alan Plattus

This fall's China studio, led by Alan Plattus, was the seventh three-way collaboration between architecture students and faculty at Hong Kong University and Tongji University, in Shanghai. It focused on the rapidly changing urban fabric along the mouth of the Suzhou Creek, where the historic Bund District along the Huangpu River begins. Deteriorated but stylish traditional apartments and commercial buildings, as well as the large enclosed former British Consulate, have now been designated for preservation. The students from all three schools confronted the complex, urgent issues associated with the status of Shanghai's fascinating colonial and Communist history in collision with its current global capitalist but ultimately state-controlled development.

On a ten-day trip to China the students visited Hong Kong and then, with the University of Hong Kong students, went on to Shanghai, where students from all three schools worked in mixed teams to study the site and the city. After returning to New Haven, the Yale students worked in three teams to develop comprehensive site plans. The final review this year was a special event because it included for the first time students and faculty from Tongji University, in China, along with Yale and Hong Kong students. The jury also included Bu Bing ('00), an architect and urban designer from Shanghai, Anthony Atkin; Wang Bowe, professor and former dean of Tongji University; Songzhou Dai, of Tongji University; Jamie von Klemperer; Deborah Gans; Fred Koetter; Amy Lelyveld ('89); Robert Levitt; Leslie Lu ('77), of Hong Kong University; Jon Pickard ('79), and Elihu Rubin (Yale College '99).

Students from China flew over to Yale with their models packed in suitcases and reassembled them to present to the joint jury. The Yale students' approaches included Julia Suh and Mohammed Balila's relatively low-density infill project that promoted street-oriented commercial development, especially in the IT sector. Overlaying the new system, but not totally obliterating existing buildings, the scheme resolved into an integrated whole in a multiplication of a kasbah-like network.

Steve Lee, Rose Evans, and Elisa Lui designed a mixed-use project that dramatically increased the density of the area with a new residential high-rise development along Suzhou Creek and commercial development along the Bund. Stitching together the new developments, they incorporated the various existing scales from alleyways to major thoroughfares. The third team, Dryden Razook, Carol Ruiz, and Chris Lee, created a dramatic new urban park combined with a transit hub surrounded by new hotels and commercial development in this highly visible and central location. They viewed the city as episodic: a place that is never experienced in totality, but in a series. Inspired by Greenbelt Cities, they designed complex horizontal spaces with a number of city centers, increasing public space by submerging the parking and reconciling the geographic situation of the street wall at the intersection of the river. All of the teams were challenged by the existing vehicle circulation patterns on the site, as well as by the opportunity to "turn the corner" from Suzhou Creek to the Bund frontage along the Huangpu River while incorporating the existing historic fabric.

The final review revealed vividly contrasting approaches to the design and presentation of the project, from fairly limited urban interventions in the immediate area of the British Consulate by the Tongji teams; to the much more extensive Hong Kong team projects, which were still relatively small scale, with new parks and recreation areas as well as reconfigurations of the site; to the three completely different approaches of the Yale groups, which take a stab at future characterization.

Fred Koetter and Ed Mitchell

The post-pro studio, centering on ideas of "Temporal Urbanism"—which acknowledges the complexity of forecasting urban situations that allow for change—investigated a developer's site in Squamish, north of Vancouver, Canada, the location of the 2010 Winter Olympics. The 77-acre site, a former lumberyard on a peninsula that suits a dense neighborhood for commuters to Vancouver and a proximity to nature, challenged the students to propose a viable urbanism in a natural setting with public mixed use, residential and commercial uses, as well as parks, greenways, and roads. The site has spectacular natural features, where extreme design concepts could explore formal ways to design for sustainability.

The students began with analysis of urban organization strategies, including linear, enclave, neighborhood, and satellite models. They also familiarized themselves with West Coast planning strategies and new developments, which they visited when they met in Vancouver with the developer Roger Navabi. At the final review, which included the master-plan design of the mixed-use residential site, they presented their schemes to jurors including developer Roger Navabi, Keller Easterling, Martin Finio, Mark Gage ('01), Douglas Gauthier, Marcus Lee, Alan Organschi ('89), Gregg Pasquarelli, Patricia Patkau ('78), and Claire Zimmerman. Dana Cook's plan was a radical adaptation of the Roman city model into a "franchise" of buildings made up of courtyard housing stacked on big-box retail and a new high-density Western-style street front. Double-loaded corridors provide access to larger courtyards sheltered from the wind. The dynamic interplay between ideas of enclosure where landscape becomes structure was intriguing to Zimmerman.

Michael Powers used computational analysis of the program to develop a gridwork of large shed buildings that inventively reinterpreted the industrial character of the area. The roof over the existing buildings resembled a computer punch-card pattern; parking was located below. Pasquarelli noted that the system allowed building in different and flexible possibilities in recursive programs. Some jurors wondered whether the blocks were actually conventional, with the new elements inserted.

Many explored formal concepts with linear master plans including Ashima Chitre's "logjam" of linear buildings calibrated for quick-delivery modular construction. Amrit Pilo's linear project used the idea of the roof as a holistic element, with the building as infrastructure creating a sense of place. Lasha Brown organized the public spaces around parking lots and urban-scaled "living machines," coupled with elegant wharf buildings linked to the waterfront. Navabi thought that the hard urban edge toward the city and the soft one toward the water, with green at the southern tip and cars removed to the periphery, provided a sense of arrival. Gauthier deemed Brown's "project about the view, with long linear blocks developed to see beyond."

Using the grid with buildings in close proximity as the dominant form, Kyong Sook Kim (Gemma) created a comfortable scale with wind machines and a tidal estuary developing a new urban center. Santiago del Hierro's urban proposal incorporated islandlike settlements in local valleys linked by water-based transit and technical explorations that captured natural forces such as wind and influenced new models for community and design. However, Patkau noted that water, too, has a force and is not just a pretty element, asking, "How do you imagine water culturally?"

Peggy Deamer
Lightning Field

Peggy Deamer's studio designed a replacement for the original log-cabin guesthouse at the Dia Foundation's *Lightning Field* installation, by Walter De Maria, in New Mexico. In deferring to the exquisite precision and "high art" of the installation, the existing guesthouse—which comes equipped with instructions on how to behave correctly on the site—strives to be low culture, concealing the facts of its own creation. The students were asked to reverse the model by designing a new guesthouse located in approximately the same place and accommodating the same functions: sleeping, eating, and contemplation for six individuals for one night. The structure had to address the unique nature of the site as well as the conditions of the building's fabrication.

After visiting the site and staying in the log cabin, the students designed projects at two scales: full-scale mock-ups that explored fabrication, craft, and material; and overall representations that investigated the desert site. The building had to be fabricated off-site and delivered for installation, negotiating a tension between generic enclosure and sensitivity to the specific site and environment.

The projects, which brought to the fore issues of the objectness of the art installation in contrast to the cabin and the site, were presented to a jury of Emily Abruzzo, Sandy Isenstadt, Frank Lupo ('83), Scott Marble, Joeb Moore (MED '91), Patricia Patkau ('78), Joel Sanders, and Marc Tsurumaki. Rather than making a simple generic kit-of-parts, the students designed projects that maintained nuances of beauty, form, and materiality in spite of their prefabricated nature. For example, Xing Chang translated the fabrication methods into the design of the building and its components.

While some students made individualistic buildings, others engaged the landscape and scattered the project throughout the site. Mustapha Jundi designed a gridded multiplication of the art installation and abstracted the building elements across the landscape rather than housing everything under one roof. Clint Burrus designed a thick structural honeycomb next to a transparent enclosure, with a layered underground space establishing a dialectic between the enclosure of the space and openness of the field, thereby enhancing the opposition of figures and field, earth and sky, subject and object. Harris Ford's building operated as a viewing device or controlling mechanism, through which the *Lightning Field* could be observed, countering the objectness of his building and becoming more about the moiré effect it created.

A number of students proposed individualistic buildings. Audrey Voung designed a self-contained sculptural object. Janet Hoh focused on how you inhabit the building itself as a simpler object and analyzed the 24-hour cycle of the day, often focused on the porch. Shauna Londergan used a regional rammed earth for chambers and roofs that collected water as a minimalist form of energy-efficiency. Clarisse Labro, who designed a tilt-up wall with felt on the interior, focused on the cabin as a functional space rather than having it compete with the work of art.

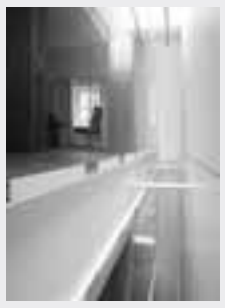
1. Gabrielle Brainard, Project for Marc Tsurumaki Advanced Studio, fall 2006
2. Michael Powers, Project for Fred Koetter and Edward Mitchell Advanced Studio, fall 2006.
3. Khai M. Fung and Ayumi Sugiyama, Project for Gregg Pasquarelli Advanced Studio, fall 2006.

Faculty News

Peggy Deamer, associate dean and associate professor, has accepted a position as head of architecture and planning at the University of Auckland, in New Zealand, starting in February 2007. Her New York-based firm, Deamer Studio, has been working on projects in New York City and Auckland.

Peter de Bretteville ('68) is designing houses in Austin, Texas; Litchfield, Connecticut; Portland, Oregon, and Chicago.

Keller Easterling, associate professor, received a grant from New York State Council for the Arts to mount an exhibition at Storefront for Art and Architecture in the summer. The exhibition will draw from her advanced studio on high-speed rail and a seminar on global infrastructure, at Yale. The Berlage Institute has asked Easterling to collaborate on the 2007 Rotterdam Biennale, titled "Power: Producing the Contemporary City." She is one of five researchers whose work is being used to set the terms of investigation for five types of cities under consideration. Easterling delivered lectures last fall at Goldsmiths in London, Harvard, Ohio State University, Woodbridge University in Pasadena, and the National Arts Club, in New York. Her article, "Too Smart to Be Right: the Stunning Political Success of Stupidity," was published in *Did Someone Say Participate* (MIT, Fall, 2006). She was interviewed in *Bidoun* and on www.archinect.com/features.



1.

Martin Finio, critic in architecture, of Christoff:Finio, will begin the design for an extensive renovation of the New York Supreme Court Building in Brooklyn. Christoff:Finio will present a lecture about its work in Houston in February 2007. Finio will also be part of this year's selection committee for the Architectural League of New York's "Emerging Voices." The firm was selected in an invited competition to design the education-floor interior spaces of SANAA's New Museum.

Mark Foster Gage ('01), assistant professor, with his firm Gage/Clemenceau Architects, was an AIA New Practice as part of "The Future of the Architecture Profession in New York," which included participation in an exhibition at the AIA as well as the Häfele Showroom. The firm's work was also part of the exhibit "Physical Tools in a Digital Age" at the Fordham University Gallery. The firm was chosen as a finalists for this years MOMA/PS1 Young Architects Program competition.

The firm's design work includes a television production studio, residential projects, and programmable pods for an office cubicle system. Gage's essay "Deus Ex Machina: From Semiology to the Elegance of Aesthetics" will be published in the *AD* issue "Architectural Elegance," edited by Ali Rahim and Hina Jamelle (March 2007). His review "Disappearing Architecture: From Real to Virtual to Quantum" was published in the *Journal of Architectural Education* (February 2006).

Deborah Gans, critic in architecture, with her firm Gansstudio, completed the design of the restaurant Varietal, in Manhattan. The firm's projects on emergency housing were published in *Design Like You Give a Damn,* edited by Architecture for Humanity (Metropolis Press, June 2006). An essay Gans wrote on the HUD-funded work in New Orleans was published in *Bauwelt*. She was a finalist in the international competition sponsored by IFG Ulm, "The Design of Politics: The Politics of Design." Gans has given lectures about her work at the Pratt Institute, IFG Ulm, Sarah Lawrence, and the Temple Hoyne Buell Center of Columbia University.

Alex Garvin ('67), adjunct professor, with his firm Alex Garvin & Associates, is working in Memphis, Tennessee, in coordination with Shelby County and private foundations to transform the 4,500-acre Shelby Farms site into a park integrated with neighborhoods and connected to a countywide open-space system. In Nebraska, the firm created a planning tool kit for citizens along the I-80 corridor between Omaha and Lincoln, offering a context in which to understand the long-term impact of planning decisions and how citizens can influence them. In addition, the firm was hired by GB Development and Toll Brothers to design a new park in Maryland, near Washington's Capitol Beltway. In New York, the firm is studying sites for a new high school, waterfront planning, and strategic capital investments for the city of New York. Garvin lectured at the "Growing Greener Cities" conference in Philadelphia in October 2006. He also participated in an October 3 panel discussion at the Urban Center cosponsored by the Storefront for Art and Architecture, in New York, that explored the potential benefits of urban sprawl, as outlined in Robert Bruegmann's book, *Sprawl: A Compact History* (University of Chicago Press, 2005).

2.

Kimo Griggs ('84), lecturer, designed and manufactured details for the Winvian Farms "Industry" cottage, a resort in Litchfield, Connecticut. He oversaw the rehabilitation of the North Bennet Street School, including a new executive officer's suite, workshops, and a headquarters for the only full-time bookbinding department in the country. In addition, his design for a new building for the Granite Academy, in Braintree, Massachusetts, is nearing completion, as are benches in Union Square, Somerville, Massachusetts, a winning entry in a recent public seating competition. Griggs received a Boston Society of Architects Small Firms/Small Projects award for additions to the historic Wellesley House, and his table series, Fetch, was displayed at the International Contemporary Furniture Fair. Griggs co-authored the book *Digital Design and Manufacturing: CAD/CAM Applications in Architecture and Design* (Wiley, 2006) and contributed to the CAD/CAM section of the upcoming *Architectural Graphic Standards*. In addition to his teaching in materials and component prototyping at Yale, Griggs instructs digital design and manufacturing workshops at the Universidad Iberoamericana, in Mexico City.

Sophia Gruzdys, critic in architecture, recently completed a private residence in Begur, Spain. The house was featured on the cover of the Spanish magazine *Interiores* in November 2006.

Stephen Harby ('80), lecturer, led architectural tours and conducted watercolor workshops in Libya, southern India, California, and New York City for organizations including the Society of Architectural Historians, the American Academy in Rome, the National Committee for the History of Art, and the Institute of Classical Architecture & Classical America. He was a contributing author to the *American Institute of Architects' Architectural Graphic Standards,* eleventh edition, in the section on classicism. Harby's watercolors were exhibited in Northern California and in Santa Monica.

Dolores Hayden, professor, is spending the year as a Fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford University. In September, she spoke at the annual conference on housing for *Dwell* magazine and in November delivered a Dean's Lecture at the Radcliffe Institute, in Cambridge, Massachusetts. Her book, *A Field Guide to Sprawl* (W. W. Norton, 2004), was listed as one of the top twenty books in science, as well as a top title in urban studies; her research on sprawl will be featured in three upcoming documentary films. Hayden received the 2006 Margarita McCoy Award from the Association of Collegiate Schools of Planning for innovative research on gender and urban space.

Brian Healy ('81), critic in architecture, won a competition sponsored by the National Endowment for the Arts for the Mill Center for the Arts in Hendersonville, North Carolina. The commission calls for an 85,000-square-foot cultural center that covers an entire city block and includes a 1,200-seat symphony hall, a 300-seat blackbox theater, art galleries and studios, as well as a children's museum.

3.

Mimi Hoang, critic in architecture, with her office nArchitects, recently won an AR+D Mention for "Windshape," a responsive environment that registered the wind in Lacoste, France. The firm was commissioned by Lexus to design an installation that would slowly transform over a week. Its project "Unpacking" was exhibited at the World Financial Center, in New York, in October as part of Lexus's new car launch event. The firm's Switch Building was included as one of Open House New York's public tours and architects' talks. In fall 2006 Hoang and her partner, Eric Bunge, lectured at Columbia University, Princeton University, and the first New York event of Pecha Kucha. Their firm's work was published in the following books last year: *Materials for Design* (Princeton Architectural Press), *Activity Diagrams* (Damdi Press), *Natural Architecture* (22 Publishing), and *New Urban Spaces* (Links Books). Recent magazine publications include *Architectural Record, Architectural Review, Domus, Icon,* and *Mark*.

M. J. Long ('64), critic in architecture, with her firm Long & Kentish and Colin St. John Wilson, was featured in *Architecture Review*, October 2006, for the design of an art gallery in Chichester, England.

4.

Herbert S. Newman ('59), critic in architecture, is designing Crown Mews, a complex of twenty-two town-house units and seventy-four belowground parking spaces in downtown New Haven. The firm designed the Guadalajara and Jalisco, Mexico, regional library as a place of connection between the past, present, and future to create an intimate relationship between collection and reader, while solving the problems of information location, access, and management in larger libraries. The firm's Hallingby Residence, on Harbor Island in the Bahamas, comprising laminated wood beams and column frames prefabricated in Florida, was erected on-site in two weeks with in-fill by local carpenters and masons.

Tim Macfarlane and **Patrick Bellew**, lecturers, have essays in the book *Rick Mather Architects,* by Robert Maxwell (Black Dog Publishing, August 2006).

5.

Alan Organschi ('88), critic in architecture, with his partner, Elizabeth Gray ('87) of Gray Organschi Architecture, received a 2006 AIA Connecticut Honor Award in the "Unbuilt Projects" category for a proposal to adapt and redevelop the structure of the New Haven Coliseum, an alternative to the city's demolition plan now under way. The firm also received 2006 New England and Connecticut AIA Awards for the design of New Haven's Firehouse 12 Music Production and Recording Studio on Crown Street, a project praised for its technical and acoustical innovation as well as its preservation and reuse of an abandoned city fire station. The firm is designing the Jesuit Apostolic Center and Residence at Fairfield University; a new day-care center and nursery school for the Guilford Center for Children, in Guilford, Connecticut; an environmental upgrade of the building envelope of the Yale Medical School's College Plaza building on College Street; a 300-foot-long bridge and wetland crossing over the Macedonia Brook and its floodplain, in Sharon, Connecticut; and a zero-energy building material storage and maintenance facility, in Washington, Connecticut, as well as several new houses in Connecticut.

Eeva-Liisa Pelkonen (MED '94), assistant professor, concluded work on the multiyear Eero Saarinen research project with the opening of the exhibition *Eero Saarinen: Shaping the Future* in Helsinki on October 6, 2006. The book bearing the same name that she co-edited with Donald Albrecht was published by Yale University Press in November 2006. In addition to lecturing about Saarinen's architecture to various audiences, including to a group of British scholars and archivists attending a symposium at the British Art Center, Pelkonen is designing an employee lounge for the Thomas J. Watson Research Center, in Yorktown Heights, New York, originally designed by Saarinen.

6.

Ben Pell, critic in architecture, has recently completed a 2,000-square-foot retail project, Valley, on New York's Lower East Side. Featured in the *New York Times* "Style" section (October 2006), it includes two CNC-fabricated installations produced at Yale over summer 2006 with assistants Todd Fenton ('08) and Marc Newman ('08). Pell participated in the panel discussion "Decoration" at the Architectural League of New York in November 2006, with the launch of the book *Decoration* (306090), which includes recent research by his Brooklyn-based practice, Pell Overton. The firm's work was included in the exhibition *Blockparty*, featuring the work of Brooklyn-based architects and designers as part of the 2006 International Contemporary Furniture Fair in New York, on view May–October 2006 at 14Townhouses, a new residential development in Downtown Brooklyn.

Alec Purves ('65), professor, displayed his watercolors at the Blue Mountain Gallery, in New York, from November 28 through December 30, 2006.

Nina Rappaport, publications director, received a New York State Council on the Arts grant toward research for her book, *Support and Resist: Structural Engineers and Design Innovation,* to be published by The Monacelli Press (Spring 2007). She took part in a November 2006 panel discussion at the New York Architectural League in conjunction with the publication of the *Decoration* (306090), which includes her essay, "Deep Decoration." She was architectural critic in residence at the University of Albany SUNY in November when she gave a talk of the same name. Her project *Long Island City, Connecting the Arts,* (Episode Books, 2006) co-authored with David Reinfurt and Colin Cathcart, is reviewed in *A+* (February 2007). The Vertical Urban Factory, the work of the advanced studio cotaught with Michael Towers ('00), at Parsons School of Design will be exhibited in New York.

Dean Sakamoto (MED '98), exhibition director and lecturer, of Dean Sakamoto Architects, completed the New Haven Veterans Memorial Hall and monument in New Haven City Hall, which was dedicated on Veterans Day. The firm designed and installed the exhibition *French Modern Sources,* a show of iconic furniture from the Centre Pompidou's Collection of Architecture and Design curated by its director, Frederic Migayrou, at the Collins Gallery at Art Basel Miami in December.

Joel Sanders, associate professor, served on a jury for the Pan-American Biennale, in Quito, Ecuador, in September 2006. His interior lobby entrance to the Kahn Yale Art Gallery was completed in December 2006.

Robert A. M. Stern, dean, and his firm, Robert A. M. Stern Architects, completed the Joan and Sanford Weill Hall, home of the Gerald R. Ford School of Public Policy at the University of Michigan, in Ann Arbor, in fall 2006. Dean Stern was keynote speaker for the Ed Bacon Foundation's awards dinner in Philadelphia and presented the Baltimore Architecture Foundation's inaugural Robert E. Lewis Lecture at the Walters Art Museum in Baltimore. He is working with his firm on several new residential blocks in Almaty, Kazakhstan. *New York 2000*, the fifth volume in the series of books on the architecture and urbanism of New York City that Dean Stern has co-authored, was published by the Monacelli Press in November 2006.

Barry Svigals ('76), lecturer, with his firm Svigals + Partners, is designing the Eastern Connecticut State University Student Center and the Beecher School. His firm received a commission to design the Discovery School, a 70,000-square-foot interdistrict magnet school in Bridgeport, Connecticut. Its work for the department of neurobiology laboratories at the Yale School of Medicine, which achieved a LEED-Gold certification and became the first LEED-CI-certified project in Connecticut, was featured in the *Hartford Courant*, November 2006. Svigals also published an article in *School Planning and Management* magazine (May 2006) about his firm's Martinez School project. Svigals is designing the Columbus School in New Haven, some private residences in New York and Connecticut, various laboratory buildings, and is also completing programming studies for three new elementary schools in Waterbury, Connecticut.

Claire Weisz ('89), critic, with her firm Weisz + Yoes Architects, and Mark Yoes ('90), received two awards for the Battery Bosque—a top award from the Waterfront Center and an Honor Award from the N.Y. Chapter of the American Society of Landscape Architects. The firm was also a finalist for the New York Aquarium Competition, and its Surf Avenue Pedestrian Bridge, in Coney Island, was featured in the New York AIA exhibition, *Going Public*, in November 2006. In fall 2006, George Layng Pew III ('89) became a partner in the firm.

Carter Wiseman, lecturer, has written the first biography of Louis I. Kahn, *Louis I. Kahn: Beyond Time and Style (*W. W. Norton, March 2007). He spoke at the Phillips Exeter Academy on November 16, 2006, to share in the celebration of the 35th anniversary of the installation of the school's book collection in the library designed by Kahn. Wiseman edited the book *A Place for the Arts* (December 2006) to mark the centennial of the MacDowell Colony, the nation's oldest retreat for creative artists. The book includes photographs by Yale faculty member **Victoria Sambunaris**. Faculty members who have been recent MacDowell Fellows include **Kent Bloomer**, **Keller Easterling**, **Hilary Sample**, and **Joel Sanders.**

Claire Zimmerman, lecturer, published the book *Ludwig Mies van der Rohe* (Taschen), which went on sale in Europe and North America in fall 2006.

Building Project 2006

Detail is what you notice as you walk through the 2006 Building Project; detail expresses an idea, unifies rooms, or resolves a material intersection: detail that covers our mistakes, highlights our successes, and bears the brunt of our experiments. They show where we have learned how to build and how we have spent our late-night hours; they reveal the traces of an experience that we will lean on when we build again. But for all of the meticulous effort expressed in the house's details, the design retains its original driving concepts, the most important of which was to strike a balance between interior and exterior spaces.

The house occupies a distinctive lot among multifamily houses and apartment buildings on Henry Street in New Haven's Dixwell neighborhood. Nearly double the width of the neighboring houses, with a 5-foot drop in grade and a 60-foot-tall Norway maple tree at its heart, the site offered challenges and opportunities that guided the students in their design. Landscaping and exterior construction extended the design of the 1,500-square-foot program across the entire property. To balance indoor and outdoor volumes, each room on the ground floor was designed to connect with an exterior counterpart, suggesting to the inhabitants the possibility of using different areas of the yard. The massing of the house encloses a large outdoor room and frames the canopy of the tree, giving the shaded area both prominence and shelter.

The interior of the house reflects its site. A solid wall to the west, near the property line, is designed as a shell that seems to protect the interior volumes from the neighboring house. A double-height interior void creates a vertical core from which all other living areas spin off. As these spaces open to the east and north—revealing both the Norway maple and the exterior "rooms"—the floor level steps down with each change in function, accentuating the existing grade and mediating between urban street front and private backyard.

Details articulate these design ideas, and the use of materials unifies disparate elements. Slatted horizontal cedar fencing around an outdoor patio became siding for solid benches on the back deck. Aluminum channels used at the joints of the exterior cladding were also used in fence posts and toe-kicks at an exterior bench. Ship-lapped cedar siding highlights the exposed shell of the west perimeter walls and roof soffits and reappears at the front porch, which is carved into the mass of the building. A custom-designed steel-and-cedar handrail at the interior staircase connects the spaces on the second floor to the lower levels and the exterior porches through the use of like materials and detailing.

Details also represent figurative ideas and accentuate fine-grained design elements. An ornamental screen at the perimeter of the double-height space, for example, is assembled from milled cedar boards with a solid-and-void pattern based on the maple tree. The screen underlines the importance of the tree and its interior counterpart, the vertical volume, adding a contemporary take on ornament to a neighborhood rife with traditional architectural flourishes. Elsewhere, beech countertops form a continuous datum throughout the first floor, physically connecting each room while forming a visual separation from the kitchen. Routed wood vents, cabinets with reveals, and slotted siding all particularize different spaces and elements in the house.

Some details respond to pragmatic functions. Built-in cabinetry, which students fabricated in the wood workshop at the School of Architecture, provides storage throughout the house. The planning of the kitchen and its cabinetry maximizes the usefulness of the space, intended to accommodate several family members. The double-height slot offers an auditory connection between the two floors and between the utility entrance and the rest of the house. Finally, continuing the efforts to be environmentally responsible, the 2006 house incorporates solar panels on the roof, natural ventilation through operable windows in each room, reclaimed bluestone curbs as landscaping material, and a large variety of native trees and plants to replace invasive species throughout the property. Whether it is the larger vision of the design or the precision of its finely wrought details, there is an enthusiasm evident in this house that we hope will endure.

—Benjamin Smoot ('08)

Urban Design Workshop

Founded in 1992, the Yale Urban Design Workshop (UDW) has occupied a unique niche in the New Haven cityscape, working on regional urban planning charrettes in which professors and students can collaborate on real-world projects.

As Alan Plattus, professor of architecture and the program's founder, explains, this notion of town-gown symbiosis is hardly novel: "There are a lot of community design centers out there. They're really a product of the 1960s, when architects and other design professionals were looking for other means to practice to connect with communities outside of immediate professional relationships." This need has materialized in the UDW, which is a non-profit urban consulting service providing assistance on local development and revitalization projects.

The UDW serves towns and community groups, as well as chambers of commerce and private developers. To procure the firm's services, clients often approach the UDW and pay a minimal fee to cover student time and overhead. And as Plattus said, "We have never needed to advertise. The word has spread throughout the state through various networks and, by now, government agencies who are concerned with issues of planning, growth management, environmental design, etc., know us."

The UDW is highly participatory, involving an open dialogue with community groups as well as professional planning and landscaping firms. With a small workforce that includes full-time project manager **Andrei Harwell** ('06), Plattus, faculty members **Edward Mitchell** and **Keith Krumwiede**, and five part-time student workers including second-year **Nick McDermott**, the workshop is busy. As McDermott said, "The jobs vary in scale, from small speculative studies to individual buildings to downtown master plans."

While interested students usually apply, Plattus said that the UDW also recruits. Some are drawn from Plattus' graduate studio. He said, "Just as studios are exploratory in character, often students are asked to develop individual proposals for consideration in group discussions, but beyond that we operate more like a professional firm in terms of relationships with our clients."

As the UDW works within the vocabulary of urban planning on projects involving land use, zoning and design regulations, and transportation, Plattus is careful to define it as an urban design studio. Currently, the UDW is also collaborating with the New York–based office Perkins+Will to design a new campus in downtown New Haven for Gateway Community College. Encompassing nearly 400,000 square feet of space, it is one of the largest urban-development projects in New Haven.

"As the urban design consultant on the Gateway project," Andrei Harwell explains, "we have wide latitude and are collaborating on a variety of aspects of the project, from the building massing, circulation, and material selection to paving patterns and lighting standards. We key into any issue which might impact the urban or public realm, meaning how the city functions both aesthetically and programmatically, and help determine how the building fits into that system." Yet despite the scale of the project, it isn't driven primarily by aesthetics but strives for seamless integration into New Haven's urban fabric. "We are looking at what the building will do to the neighborhood and to the street and are trying to understand how it should best fit into that system or how it can modify that system for the benefit of the city," said Harwell.

This investigation evolves as part of a charrette process, on a weekend-long session of brainstorming among faculty, students, architects, and members of the community. This is one of the UDW's most distinctive features, in that it synthesizes both a work environment and the highly participatory nature of an academic studio for a synergistic exchange of ideas for the development of a project.

—David Sadighian (Yale College '07)

1. Martin Finio, Christoff: Finio Hechksher Foundation, New York, 2006.
2. Kimo Griggs, Wellesley House addition, Boston, Massachusetts, 2006.
3. Mimi Hoang, nArchitects, Windshape in Lacoste, France, 2006.
4. Herbert Newman, Rendering of Crown Mews, New Haven, 2006.
5. Alan Organschi, Gray Organschi, Rendering of concept for the New Haven Coliseum, 2006.
6. Ben Pell, Pell Overton, Valley, New York, 2006.
7. 2006 Building Project, New Haven.
8. Urban Design Workshop scheme for proposed mixed-use district, New Britain, Connecticut, 2006.

7.

8.

Alumni News

Alumni News reports on recent projects by graduates of the school. Please send your current news to: *Constructs,* Yale School of Architecture, 180 York Street, New Haven, CT 06511.

1950s

Hugh Newell Jacobsen's ('55) addition and renovation of the University of Oklahoma's Fred Jones Jr. Museum of Art was featured in the September 2006 issue of *Architectural Digest,* along with **Gavin Macrae-Gibson**'s ('79) Canadian Summer Cottage.

1960s

Stanley Tigerman ('60) was featured in the *New York Times* on November 5, 2006, for his work on the Pacific Garden Mission project in Chicago. His design for the faith-based nonprofit will consolidate the mission's activities in a 156,000-square-foot structure and includes a greenhouse complex as part of its sustainable-design features.

Phyllis Lambert ('61) delivered the second annual Eleanore Pettersen Lecture, "The Social, Ethical, Aesthetic, Cultural, and Financial Significance of 'Wasted' Space: The Seagram Building, 1954–58," on November 9, 2006, at Cooper Union's great hall.

Charles Gwathmey ('62) was featured with Ralph Lauren in *Wallpaper* magazine in October 2006. The issue paired several fashioner designers with the architects who inspire them, and Lauren selected Gwathmey for his clarity and focus.

Theoharis David ('64) gave the presentation "Defining Sustainability" at an international symposium on sustainability in Nicosia, Cyprus, sponsored by the Harvard School of Public Health and the Environment in October 2006.

Craig Hodgetts ('66) with his firm, Hodgetts + Fung Design, was given a Civic Award for the design of Hyde Park Miriam Matthews Branch Library by the LABC at the 36th Annual Los Angeles Architectural Awards.

1970s

Sara Caples ('74) and **Everardo Jefferson** ('73), with their firm Caples Jefferson Architects, received a 2006 Project Award Citation from the New York AIA Chapter for their work on Intergen, a ten-unit residential project in Chicago. The housing, designed for grandparents to raise their grandchildren, was also a 2003 finalist in the National Endowment for the Arts Intergen Competition. Caples and Jefferson's design for the Weeksville Heritage Center, in Brooklyn, New York, was a featured case study in the 2006 City of Culture exhibit at New York's Center for Architecture. The LEED Gold–rated building, with a façade decorated in patterns derived from African art, also received a 2005 Design Award from the Art Commission of the City of New York.

Peter Calthorpe (MED '79) received the 2006 Urban Land Institute J. C. Nichols Prize for Visionaries in Urban Development, which honors those who inspire great places. He is the first architect and urban designer to win the prize. Vincent Scully and Gerald Hines have also received the honor.

Robert Olson ('79), of Robert Olson + Associates, in Boston, recently completed a series of cultural pavilions at Wesleyan University, Middletown, Connecticut. Modernist glass façades allow vistas into the new Patricelli 1992 Theater, the Zelnick Pavilion, and the Memorial Chapel.

1980s

1.

Turan Duda ('80), with his firm, Duda/Paine Architects, received a 2006 Merit Award for Design from the American Institute of Architects Triangle Design Awards, for the North Carolina School of the Arts Welcome Center. The Winston-Salem project was an outgrowth of the campus master plan designed by Duda/Paine Architects and was completed in 2005. Phase one of the firm's Time Warner Cable Headquarters was also completed in Charlotte, North Carolina.

Alexander Gorlin ('80) assessed Leon Krier's Jorge M. Perez Architectural Center at the University of Miami, Coral Gables, Florida, in an article in *Architectural Record* (October 2006).

2.

Ted Porter ('84), with his firm, Ryall Porter Architects, received an honorable mention in the 2005 NYC Green Building Competition sponsored by EPA and NYCDEP. The firm's proposal for Median-Income Housing on Park Avenue was exhibited at the Center for Architecture in June 2006.

Bruce Lindsey ('86) was appointed dean of the Washington University in St. Louis School of Architecture.

David Leary ('87) lectured at the opening of the exhibition *At the Threshold of Eternity* at the University of Kentucky College of Architecture in fall 2006. The show featured a series of finely crafted basswood models, including Hejduk's Cathedral and Le Corbusier's La Tourette, executed by Leary and several generations of his students at the College of DuPage, in Glen Ellyn, Illinois. His Chicago-based firm, Alcacova & O'Leary Collaborative, was awarded a Jury Selection citation for its entry, "A Pathway of Hope in a Troubled World," in the High-Line Design Competition, in New York City, in 2005. The firm has recently completed the Naper/Davis and Owen/Leary residences, located on Chicago's north side.

Eric Watson ('88) was featured in the September 2006 issue of Clem Labine's *Period Homes*. The article "Simple Forms" discussed Watson's evolution as an architect and mentions the profound impact **Elizabeth M. Plater-Zyberk** ('74), **Andreas Duany** ('74), and **Scott Merrill** ('84) had on his career. Today, Watson specializes in Southern vernacular and Caribbean-inspired homes in the New Urbanist developments of the Florida panhandle.
Victor Deupi ('89) is currently serving as the Institute of Classical Architecture and Classical America's first Arthur Ross Director of Education. Deupi gave a talk with partner Pier Carol Nontempi about their architectural practice in February 2006.

1990s

Ken Anderson ('90) and **Pamela Freund** ('90), of Environmental Design Group Enterprise, EDGE Architects in Taos, New Mexico, has an adobe straw-bale home featured in the book *Building with Earth: Design and Technology of a Sustainable Architecture* by Gernot Minke, published in 2006. The house also won an Excellence in Design honorable mention from *Environmental Design and Construction* magazine in 2005. The firm's work was also published in *Sources+Design* magazine (July/August 2006).

Robin Elmslie Osler's ('90) work for Anthropology was discussed in a letter from the store's president in the July 26, 2006, issue of *The Architect's Newspaper.*

Jason Alread ('91) and **Tim Hickman** ('00), of the Des Moines–based firm Substance, were selected by the International Interior Design Association as Best of Competition in the 33rd Annual Interior Design Competition for their work on their own studio space.

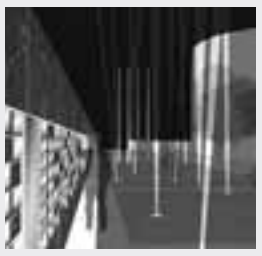
3.

Celia Imrey ('93), of Imrey Culbert, in New York, is working in a joint venture with SANAA of Japan on a 300,000-square-feet branch of the Louvre Museum on a former mining site in Lens, France, integrating the museography, lighting, display concepts, and the visitor's experience with the building design. Other projects include the firm's gut rehabilitation of the Kuwait National Museum, which was bombed in 1991 and will begin construction in June 2007. The firm has also completed the exhibition display designs at the Morgan Library, in New York (Renzo Piano Architect); the Toledo Museum of Art Glass Pavilion, in Ohio (SANAA Architect), and the Smithsonian American Art Museum at the Renwick Gallery, in Washington, D.C.

4.

Johannes M. P. Knoops ('95) exhibited his winning design for the Tsunami Memorial at Teatergata/Munchs Gate, in Oslo, Norway. The project, "Precious Memories Floating on a Mystic Horizon," commemorates the Tsunami victims of Norwegian origin and was sponsored by the National Foundation for Art in Public Buildings of Norway. Its location on the western shoreline of the Bygdoy peninsula in Oslo will be visible from both land and sea.

Jim Cronenberg ('98), of Washington, D.C.–based GRUPO7, completed several projects in 2005, including the Ceviche Restaurant, Eyebar Lounge, House in Capitol Hill, K Street Lounge, Loft in Adams-Morgan, Mate Restaurant, Play Lounge, RRG Worldwide HQ, Savory Café, all in Washington, D.C., and a Seaside House, in Chile.



5.

Maureen Zell ('98) and **Marc Roehrle** ('98) formed a design and research firm in Boston, Massachusetts. Its first completed work, the Northeastern University Veterans Memorial, was dedicated on November 11, 2006.

2000s

Goil Amornvivat ('00) is a contestant in the TV reality design show, Top Design, on Bravo from January 31 through March 2007.

Michael Chung ('01) and **Kara Bartelt** ('99), of Lettuce Office & Lettuce Interiors, were featured in *LA Architect* magazine's November/December issue. The article showcased the top ten firms to watch in Los Angeles and discussed Lettuce's range of work, from multi-unit housing to projects for Landon Cole Furnishings. Chung and Bartelt currently teach at the University of Southern California.

Bimal Mendis ('02), **Joyce Hsiang** ('03), and **Jonah Gamblin** ('05) have joined OMA, in Rotterdam.

Rosamond Fletcher ('05) helped plan the September 2006 Dean's Roundtable and *Arch Schools-Public View(ing)* exhibition at the AIA's Center for Architecture, in New York, where she is working as a curator.

Julia Stanat and **Sal Wilson** ('05) are working at Gwathmey Siegel Architects in New York.

Jennifer Duhamel ('05) works for Skidmore, Owings & Merrill in Roger Duffy's Education Lab, New York.

Graduates from the class of 2006 are working at the following architectural firms:

Ashton Allen, Pickard Chilton, New Haven, Connecticut; **Eeron Ashley**, Hart Howerton, New York; **Christopher Beardsley**, Cooper Robertson & Partners, New York; **Benay Betts**, Arquitectonica, New York; **Matt Byers**, James Dayton Design, Minneapolis; **Mario Cruzate**, **Melanie Domino**, **Sarah Rubenstein**, and **Tim Kirkby**, Robert A.M. Stern Architects, New York; **Namil Byun** and **Michael Grogan**, Koetter Kim and Associates, Boston; **Timothy Campbell**, Leroy Street Studio, New York; **Paolo Campos**, Centerbrook Architects, Connecticut; **Eren Ciraci**, Zaha Hadid, London; **Sung Ik Cho**, SOM, New York; **Daniel Chung**, MGA Partners, Philadelphia; **Abigail Coover** and **Nathan Hume**, Gage/Clemenceau Architects, New York; **Naomi Darling,** Kengo Kuma, Tokyo; **Andrei Harwell**, Yale Urban Design Workshop, New Haven; **Drake Hawthorne**, Transsolar Climate Engineering, Stuttgart; **Laura Killam**, Gehry Partners, Los Angeles; **Heather Kilmer**, Studio Gang, Chicago; **Chris Kitterman**, Joel Sanders/Diana Balmori; **Nicole Lambrou** and **Abigail Ransmeier**, Behnisch Architekten, Stuttgart, Germany; **Andrew Lyon**, Kohn Pedersen Fox, New York; **Julia McCarthy**, Sage and Coombe Architects, New York; **Mayur Mehta**, Hillier Architects, Princeton, New Jersey; **Fred Scharmen**, Greg Lynn FORM, Venice, California; **Meaghan Smialowski**, Flank, New York.

Maya Lin's Vietnam Memorial has been given the AIA's 25th Year Award.

Architectural Record December 2006 featured Yale women faculty **Zaha Hadid, Deborah Berke**, **Peggy Deamer,** and **Sophia Gruzdys** as well as Yale alumnae including **Andrey Matlock** ('79) and **Robin Elmslie Osler** ('90).

The *AD*100 list for January 2007 includes the following from Yale: **Norman Foster**, **Peter L. Gluck**, **Alexander Gorlin**, **Thomas Kligerman, Hugh Newell Jacobsen**, **Jaquelin T. Robertson**, **Robert A.M. Stern**, and **Stanley Tigerman**.

1. Turan Duda, Duda/Paine Architects, North Carolina School of the Arts Welcome Center, 2005.
2. Ted Porter, Ryall Porter Architects, concept for Median-Income Housing, Park Avenue, New York, 2006.
3. Celia Imrey, Imrey Culbert with SANAA, rendering of the Louvre Museum, Lens, France.
4. Johannes M. P. Knoops, rendering of the Tsunami Memorial Teatergata/Munchs Gate, Oslo, Norway, 2006.
5. Maureen Zell and Marc Roehrle, Northeastern University Veterans Memorial, Boston, Massachusetts, 2006.

Aaron Betsky Moves to Cincinnati

After five years as director of The Netherlands Architecture Institute, **Aaron Betsky** ('83) has become the new director of the Cincinnati Art Museum, the oldest in the United States west of the Alleghenies. The museum is ready to build on its intrinsic role in the community (admission is free) through a major rethinking of its exhibitions and collections. According to Betsky, the museum "is an institution with a particular history, one that was started by the good ladies of Cincinnati with what was then the South Kensington Museum and now the Victoria & Albert in London as its model. It therefore has a strong tradition of thinking of art as part of everyday life and an active participant in the development of a society."

1.

Inui a Record Design Vanguard

Kumiko Inui ('96), principal of the Office of Kumiko Inui, was featured in *Architectural Record*'s 2006 Design Vanguard (December 2006). Upon graduating from Yale in 1996 and receiving the prestigious William Wirt Winchester Traveling Fellowship, Inui returned to Japan to work for the Office of Jun Aoki and Associates. After four years working in the office, Aoki's maximum allowance of employment, Inui opened her own office in Tokyo. Her career began with interior designs for high-end retailers such as MeLeZe Gotemba (Shizuoka 2003) and Jurgen Lehl Marunouchi (Tokyo 2003), in which she drew on art and the idea of retail installations, using paint to create abstract shadows. Inui's main focus to date has been designing façades for luxury boutiques such as Louis Vuitton in Taipei, Taiwan (2006) and Christian Dior in Ginza, Tokyo (2003), exploring industry through high-tech façades hiding craftsmanship. Her current projects include an apartment building in Tokyo.

Top Design Prize to Student

Yichen Lu ('08) a first-year student in the master's program, has won first prize in the 2006 Shinkenchiku Residential Design Competition, sponsored by *Shinkenchiku* ("New Architecture"), a highly respected Japanese magazine. The objective of the annual international competition is to employ new media or definition, to describe the new urban lifestyle. Lu responded to the theme by designing a portable device titled "The Meaning of Life," which will participate in and drive the development of urban lifestyle: observing, reading, resting, and wandering the streets of Manhattan, transforming people's activities from "program" into poetic narrative. The winners were announced in the December issues of *Shinkenchiku* and *JA* "*Japan Architect*" magazines.

Campus Fence

In September 2006, **Alexander Newman-Wise** (Yale College, '08) designed and built a construction fence at the CCL renovation site sponsored by the President's Office and Calhoun College. The project was a reconception of construction fencing precipitated by the prevalence of construction sites on campus.

Two Yale Grads Green New York

Hillary Brown ('74), who with her office, New Civic Works, provides sustainable-design consulting on individual building projects and helps government agencies and universities green their building programs. Published in 2006, her *High-Performance Infrastructure Guidelines: Best Practices for the Public Right-of-Way* (City of New York with the Design Trust for Public Space) applies ecological design principles to urban infrastructure and landscape as well as urban environmental systems in a holistic and integrated ecology. Brown also authored a green-design manual for the public schools in New Haven, where she has helped to implement a dozen projects. For the State University of New York, she co-authored a high-performance building manual to inform its capital construction program. More recently, for the New York Audubon Society, Brown's "Bird-Safe Building Guidelines" addresses the escalating problem of bird collisions with built structures, recommending existing and emerging design and operational practices for building owners. Currently, she is assisting the New York State Power Authority in a program to green its building and infrastructure assets. Brown teaches sustainable design at Princeton and Columbia University schools of architecture.

Bruce Redman Becker (YSoA and SOM '85), architect and developer, with his firm, Becker + Becker, completed the Octagon, the first large-scale preservation project in the U.S. to meet LEED Silver standards. A 500-unit rental building in the Octagon Tower on Roosevelt Island, designed by Alexander Jackson Davis in 1839, the complex includes numerous family-oriented amenities and a 30,000-square-foot public space designed by David Rockwell.

First built as the entry and administration spaces for the New York Pauper Lunatic Asylum, the building became the Metropolitan Hospital, but after being vacated and then suffering two fires in the 1990s, only the eight walls of the Octagon Tower remained. The tower has been restored to its original appearance, with a reinvention of the seven-story monumental spiral stair. Flanking the tower are two new residential wings where the old hospital wings once stood. The building uses 35 percent less energy than comparable new buildings, 50 percent less than older residential buildings, and is built with 40 percent recycled materials. Water and air heat-recovery units, occupancy sensors to control hallway and stair lighting, and state-of-the-art insulated windows save energy and reduce utility costs. The building is also free of materials containing formaldehyde and volatile organic compounds. Locally produced materials were used to minimize energy expended in transport, and most of the construction waste was recycled. The building also has 250 solar panels on its roof, the largest array on any building in Manhattan or any residential building in New York, which produce enough power to supply all of the common areas, the corridors, and the tower. The building has almost an acre of "green roof" over its underground parking facility, helping reduce the "heat island" effect common to urban buildings. It has also met the rigorous requirements of New York State's green-building tax credit program and received the Green Apple Award from the DEP and EPA.

Architecture for Humanity

The not-for-profit Architecture for Humanity's (AFH) book, *Design Like You Give a Damn: Architectural Responses to Humanitarian Crises* (Metropolis Books, 2006), shows that beyond the high-profile rebuilding work which has followed Hurricane Katrina and 9/11, architects and designers are engaging with humanitarian crises all over the world. For the purposes of AFH's work, crisis is defined as a situation that exists whenever the economics of a community are affected by a sudden disaster or a long-standing systemic issue. The book is a compilation of nearly one hundred projects—most of them not reported in mainstream media—that address problems related to emergency housing, community space, public policy, as well as technology related to energy, water, and sanitation.

2.

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4.

5.

Since its founding in 1999, AFH has promoted innovative design solutions to humanitarian crises through competitions, workshops, educational forums, and partnerships with aid organizations and others. The book is a new vehicle for this aim, and while three of AFH's competitions are represented, most of the examples in the book have no formal link to AFH or to each other. Each of the projects presented follows an identical template that includes project costs and funding sources in order to give designers and relief workers a realistic idea of what was necessary to make each project happen. What the projects in *Design Like You Give a Damn* have in common is an innovative approach to economic sustainability. The research emphasizes that the success of these design projects is due to partnerships with local leaders and organizations such as community development centers, as well as nonprofits that provide social services.

The idea that design can help solve social problems is an old one, but the innovation of AFH is that it acts as a conduit of information and opportunity for people carrying out design work in all corners of the world. AFH's upcoming Open Architecture Network will make these connections easier than ever before. The OAN will be an Internet database with design and building information, connecting people to experienced designers throughout the world, providing information on tested designs and materials for many types of projects, and offering the opportunity to link up formally with AFH by starting a local chapter. AFH is now represented through projects in at least six countries.

The work of AFH's first affiliate organization, Architecture for Humanity New York (AFHny), appears in *Design Like You Give a Damn,* as well. AFHny's work is shown in depth in the exhibit *Architecture for Humanity New York's NetWorks*, on display at the Municipal Art Society from January 17 to March 7, 2007. During the opening, AFH and AFHny announced a new competition conducted through New York City's Office of Emergency Management. The crisis scenario of the competition is New York City in the aftermath of a category-four hurricane. The information in the brief is derived from both city and federal damage mapping assessments. The challenge of the competition is to provide housing that will be not only economically viable but contribute to vibrant neighborhoods in the long term, the aim that AFH hopes to encourage for designers everywhere.

—Cynthia Barton
Barton ('02) was a contributing editor for Design Like You Give a Damn. *She is currently a Director of AFHny, the New York City affiliate of Architecture for Humanity.*

1. Kumiko Inui, Office Kumiko Inui, Dior, Ginza, Tokyo. Photograph by Marc Guberman ('08), 2006.
2. Becker + Becker, Octagon Tower stair, Roosevelt Island, New York, 2006. Photograph by Paul Warchol Photography.
3. Gwathmey Siegel & Associates, rendering of new Art History Department building, Yale University, New Haven, 2006.
4. Architecture for Humanity, ABC No Rio Charrette, New York, 2006. Photograph courtesy of AFHny.
5. Construction Fence Project, Yale University, designed by Alexander Newman-Wise, 2006.

Yale School of Architecture
Lectures, Exhibitions, and Symposia
Fall 2006

A&A Building, 180 York Street
New Haven, Connecticut

Lectures
Lectures begin at 6:30 p.m. in Hastings Hall (basement floor). Doors open to the general public at 6:15 p.m.

The Spring Lecture Series is supported in part by Elise Jaffe + Jeffrey Brown.

Roger Madelin
Edward P. Bass Distinguished Visiting Architecture Fellow
Thursday, January 11
"Building a New Piece of City"

Zaha Hadid
Eero Saarinen Visiting Professor
Friday, January 12
"Current Work"

Ali Rahim
Louis I. Kahn Visiting Assistant Professor
Thursday, January 18
"Catalytic Formations"

Aine Brazil
Gordon H. Smith Lecture
Monday, January 29
"Pragmatic Creativity: The Structural Challenge"

Peter Eisenman
Louis I. Kahn Visiting Professor
and Rafael Moneo
Thursday, February 1
"Architecture Today: A Conversation"

William McDonough
Monday, February 12
"Cradle to Cradle: A World of Good Design"
Plus a screening of *China: From Red to Green?* from the PBS documentary series "Design:e2"
The lecture and screening are supported by Autodesk Inc.

Gwendolyn Wright
Thursday, February 15
"Permeable Borders: Modern Architecture in America"

Kengo Kuma
Monday, February 19
"Anti-Object"

Deborah Berke
Thursday, February 22
"This Time and That Place"

Charles Rose
Monday, February 26
"Liberation and Deliberation: Recent Work by Charles Rose Architects"

Susan Fainstein
Eero Saarinen Lecture
Monday, March 26
"The Just City"

Belinda Tato and José Luis Vallejo
Monday, April 2
"Recycling the Non-City: The Work of [Ecosistema Urbano]"

Mack Scogin
Thursday, April 5
"The Rhinoceros Next Door"

Ljiljana Blagojevic
Monday, April 9
"New Belgrade: The Capital of No-City's-Land"

Ben van Berkel
Paul Rudolph Lecture
Thursday, April 12
"Everything Is Curved"

Charles Jencks
Monday, April 17
"Critical Modernism"

Adriaan Geuze
Timothy Egan Lenahan Memorial Lecture
Monday, April 23
"Lost Paradise"

Exhibitions

Exhibition hours are Monday through Friday, 9:00 a.m.–5:00 p.m. and Saturday, 10:00 a.m.–5:00 p.m. The Architecture Gallery is located on the second floor.

Some Assembly Required: Contemporary Prefabricated Houses
Until February 2, 2007

UN Studio: Evolution of Space
February 12–May 4, 2007

Year-End Exhibition of Student Work
May 18–June 1, 2007

Some Assembly Required: Contemporary Prefabricated Houses is an exhibition organized by the Walker Art Center, Minneapolis. *UN Studio: Evolution of Space* is organized with the Deutsches Architektur Museum, Frankfurt, Germany.

Exhibition publications produced by the school are supported in part by the Kibel Foundation Fund, the Nitkin Family Dean's Discretionary Fund in Architecture, the Paul Rudolph Publication Fund, the Robert A. M. Stern Fund, and the Rutherford Trowbridge Memorial Publication Fund.

Symposia

Hastings Hall (basement floor)

The Yale School of Architecture is a Registered Provider with the American Institute of Architects Continuing Education Systems. Credit earned by attending these symposia will be reported to CES Records for AIA members. Certificates of Completion for non-AIA members are available upon request.

"Seduction: Forms, Sensations, and the Production of Architectural Desire"
Friday to Saturday, January 19–20, 2007

This symposium will explore how architecture is shedding its burden of communication in favor of new formal ambitions, including the customization of moods, the influences of sensation, and the emergence of a new species of contemporary aesthetics.

Friday, January 19, 3:30 p.m.
Gregory Crewdson, Jeffrey Kipnis, Herbert Muschamp, Ben Pell, Peggy Phelan, and Sarah Whiting

Friday, January 19, 6:30 p.m.
Keynote Address
Sylvia Lavin

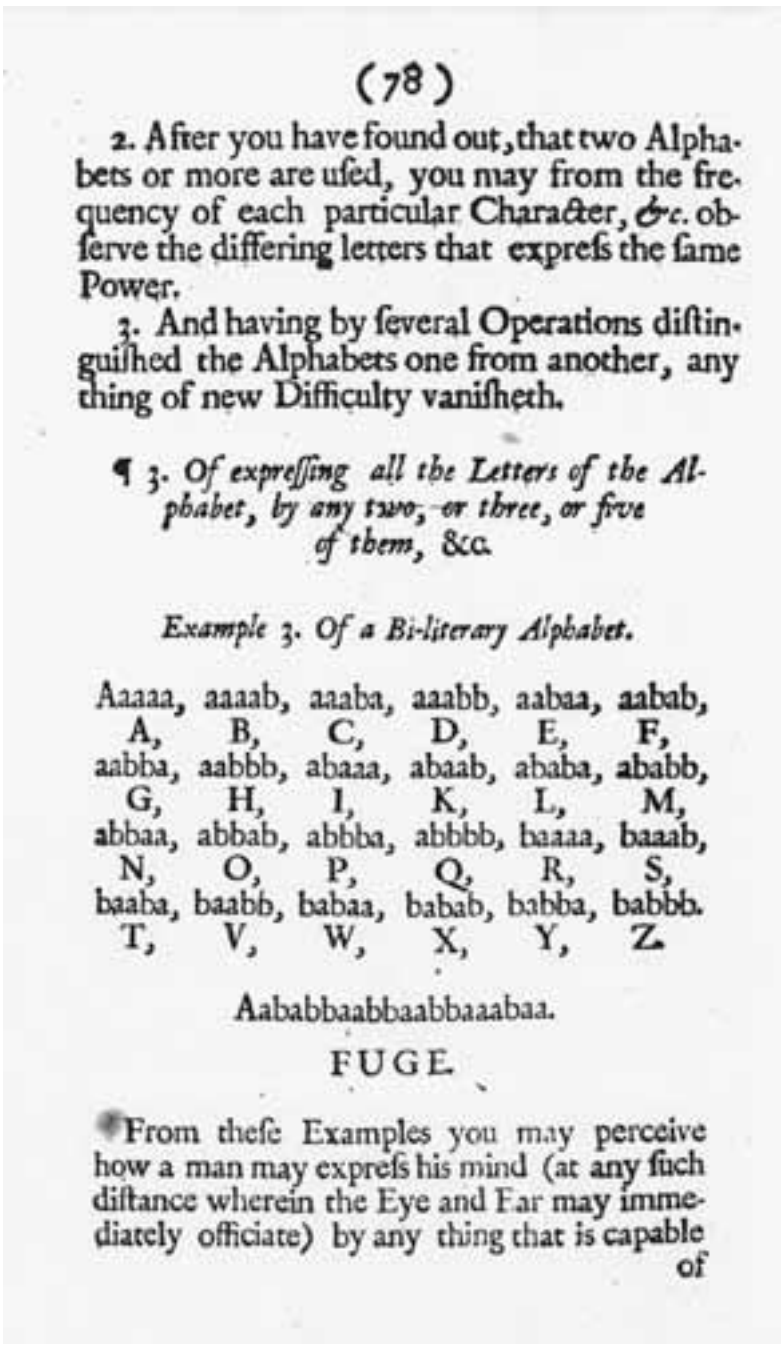
Saturday, January 20, 9:00 a.m.–6:00 p.m.
Hernan Diaz-Alonso, Peter Eisenman, David Erdman, Mark Foster Gage, Chrissie Iles, Mark Linder, Greg Lynn, Edward Mitchell, Kivi Sotamaa, Henry Urbach, and Roemer Van Toorn

"The Market of Effects"
Friday to Saturday, March 30–31

This symposium, organized by students in the Master of Environmental Design program, will explore the creation of narrative, visual, sensual, and technological effects in recent architecture and urban design. The participants will articulate the historical, economic, and technological aspects behind these effects and speculate on their ideological motivations.

Friday, March 30, 6:30 p.m.
Keynote Address
Roth-Symonds Lecture
Mark Gottdiener
"Foreground/Background: Architecture as Sign and the Culture of Theming"

Saturday, March 30, 9:00 a.m. – 6:00 p.m.
Presentation of Papers



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2. After you have found out, that two Alphabets or more are uſed, you may from the frequency of each particular Character, &c. obſerve the differing letters that expreſs the ſame Power.

3. And having by ſeveral Operations diſtinguiſhed the Alphabets one from another, any thing of new Difficulty vaniſheth.

¶ 3. *Of expreſſing all the Letters of the Alphabet, by any two, or three, or five of them, &c.*

Example 3. Of a Bi-literary Alphabet.

Aaaaa, aaaab, aaaba, aaabb, aabaa, aabab,
A, B, C, D, E, F,
aabba, aabbb, abaaa, abaab, ababa, ababb,
G, H, I, K, L, M,
abbaa, abbab, abbba, abbbb, baaaa, baaab,
N, O, P, Q, R, S,
baaba, baabb, babaa, babab, babba, babbb.
T, V, W, X, Y, Z.

Aababbaabbaabbaaabaa.

FUGE.

From theſe Examples you may perceive how a man may expreſs his mind (at any ſuch diſtance wherein the Eye and Ear may immediately officiate) by any thing that is capable of

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