Constructs Yale Architecture

Fall 2014

Annabel Wharton

Annabel Wharton, William B. Hamilton Professor of Art History at Duke University, is the fall 2014 Vincent Scully Visiting Professor of Architectural History at Yale, where she will be teaching two seminars. She will be giving the lecture "Manipulating Models" on October 30.

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1. Istanbul Hilton Scale Model by Skidmore, Owings & Merrill, with Conrad Hilton, photograph by Roy Stevens c. 1953.
2. Computer game, Assassin's Creed Revelations, Haghia Sophia, photograph by Annabel Wharton screen capture.
3. Model of the Church of the Holy Sepulchre, British Museum, London, 17th to 18th c. photograph by Annabel Wharton.

Nina Rappaport I am fascinated with your trajectory of interests: You were the paradigmatic architectural historian focused on the Byzantine era with a very rigorous approach, then moved to working with the Hilton hotels in a newly globalized world, and now you are focusing on relics and tourism in Jerusalem and the Middle East as well as the virtual realm of architecture! Can you describe your path?

Annabel Wharton I think, for most academics, like all authors, everything one writes is autobiographical. I started studying the Middle East largely because my parents lived there while I was growing up; I felt familiar with the people and comfortable in the milieu. I even did some hitchhiking there in my youth. I've also been interested in space from the time I played with my father's Anchor stone building blocks as a child. Perhaps I'd have been an architect if I had been better at mathematics. When I was a student, I traveled extensively, sketching buildings and drawing ground plans. I was a purist back then, waiting for buildings to be empty before I photographed them. I carried three cameras, one for color slides, another for black-and-white, and one as a backup. I was narrow-mindedly academic and exclusively medieval in my approach to the past. I didn't even look at Modern buildings except to be annoyed at their disruption of ancient cities. I resented interventions like the Hilton, which, in my innocence, I felt compromised the authenticity of the old urban spaces they occupied. It was good training. I attend still to the historical materiality of the object and the site, I love fondling buildings, and I'm happiest when I'm in situ. But now I carry one small digital camera and wait until buildings are being used by people before photographing them.

NR Why did the Modernist architecture of the Hilton hotels grab your interest finally?

AW While my father was living in Iran, I often traveled to see him some place in between Pittsburgh, where I went to school, and Tehran. We would meet in Athens, Istanbul, or London, almost always staying at a Hilton hotel. After my father died, I nostalgically started revisiting Hiltons. Being a poor student, I couldn't afford to stay in them, but I would photograph them and talk to workers. I gathered enough material that I thought I could write an interesting article, so I wrote to Hilton International, which at that time was owned by Ladbrokes, a betting firm in London. My letter just happened to get to the right person, an older vice president who had worked for Conrad Hilton. He was very interested in the project and made it possible for me to spend time in the Hilton archives as well as in the first generation of international hotels—Istanbul, Cairo, Athens, London, Berlin, Tel Aviv, Jerusalem—and the article turned into a book. For a medievalist, writing a book that more than eight people actually read is very addictive.

NR These shifts in your focus toward these different historic moments make your research more inclusive, and you incorporated issues of economics, materialism, and cultural studies at the same time those fields were developing into rigorous academic disciplines.

AW I was very fortunate to teach at Duke because of its early emphasis on cultural theory and interdisciplinarity. We were reading Stanley Fish and Fred Jameson before they were recruited to our faculty. I've become rather more sophisticated theoretically than I was at one time. I think of theory as being very similar to an archive. When I go to an archive, I never find what I am looking for, but I inevitably discover something quite different that makes me rethink my project. It's the same thing with theory. You might try to use a theory to support an idea you have, but if you take theory seriously, it, too, offers obstacles to your preconceptions. Both theory and archives inveigle me to reconsider my assumptions.

NR In your book *Selling Jerusalem,* you reveal the effects of commoditization from late antiquity to the present. Has your embrace of Marxist thinking, in terms of its impact on your analysis of art and the economy, shifted from the material to the immaterial?

AW My interest in economics came with the Hilton book. To understand the Hilton's aesthetics, I had to understand the company's contracts. Those contracts reveal the invention of an elite functionalism that was profitable. That's when I became involved in projects with Duke's economic historians. I've always been a materialist, so that fit perfectly into my mental framework.

NR How does architecture as a commodity or as a certain kind of cultural diplomacy get treated in your work? And what is your perspective on the place of commodity in cultural terms?

AW I use the term *commodity* in a narrow sense as defined in the *Oxford Dictionary of Economics;* as an utterly fungible thing—like a can of soup or barrel of oil—that has had its history erased in the process of its production. *Selling Jerusalem* demonstrates that the circulation of products in the Middle Ages—through gift, barter and theft as well as money exchange—was distinct from the globalized flow of commodities now. And that difference is embodied in the objects themselves. Sacred things now have a different form than they did in late antiquity. The book suggests it is worth remembering what has been lost in this shift, as well as what has been gained.

NR How is this discussion furthered in your forthcoming book, *Architectural Agents: The Delusional, Abusive, Addictive Lives of Buildings*?

AW The new book works to put life back into objects—namely, buildings—that have been drained of their instrumentality by modernity. The basic argument is that buildings are embodied agents, and I don't mean that metaphorically. Every building, like every human, is unique. Buildings, in contrast to, say, books, paperweights or chairs, resist commoditization. You can talk about spaces that seem to act like commodities, being bought and sold as though they were identical, like floors in a speculative office tower or houses in Levittown, but every one of those spaces has a different orientation, a different light, a different history, a different affect. And I found it a little easier to make an argument about buildings as actors by investigating ones that behave badly.

NR But why focus on bad buildings when most in the field are trying to find a way to make them more habitable?

AW I think most people expect buildings to at least try to be good. Looking at structures that engage in murder, prevarication, and seduction might have a greater effect on how seriously people take architecture. Buildings that are pleasant don't make a conscious impact; buildings that are obnoxious get our attention. I found it impossible to seriously engage bad spatial behaviors without coming to terms with the digital sphere. I had to learn a whole new world of things. Now I'm a pretty good gamer. I play Assassin's Creed, hang out in Second Life, and reconstruct historical sites with Google SketchUp. The learning curve was very steep, but very fun.

NR Are you discussing these buildings in terms of their representation in the virtual realm or in other types of representation, as well? In pairing up different building types for the book, how do you deal with the digital type?

AW *Architectural Agents* is organized by pathologies: death, disease, and addiction. It is in the last of these sections that I treat Las Vegas and the digital worlds of slot machines, video gaming, and immersive worlds as spaces offering those cues that invite addiction.

NR What are you teaching in your Yale seminars this semester, and what are you working on next?

AW One seminar will focus on models, the subject of my new project. Models are wonderfully ambivalent. When you say something is a model, do you mean that it is an active, dominant thing that dictates the form of its copies or that it is the passive diminution of an archetype? The model's ambivalence between acting dominantly or passively is my subject of investigation. We'll consider different models—diagnostic (architectural and scientific), normative (super models), phenomenological (toys), manipulative (ideological), illusionary (filmic and digital)—all models that are meant to affect the way people act or think. Models contribute to play, identity formation, illusion, and analysis. I am interested in thinking about what each one of many different varieties of models can teach us about the complex functions of the architectural model.

NR Is there an interesting example of a model that has a function other than representing a building that will be constructed in the future that you have discovered in these terms?

AW The British Museum has four very beautiful early modern models of the Church of the Holy Sepulchre in Jerusalem. They are made of olive wood, mother-of-pearl, and camel bone, and I used to think of them as decorative super-souvenirs. The curator was kind enough to let me play with them. They are like puzzle boxes: tops come off, the walls slide out, doors open. Research suggests that they were not souvenirs but were produced by Christian Palestinian craftsmen in Bethlehem at a time when pilgrimage was almost erased by the Reformation and counter-Reformation. The Franciscans of the Holy Land Custody used them as cultural capital, gifts for the elite and powerful to remind them of the existence of Jerusalem and to promote a new crusade. These models not only powerfully represent politics, but also their "puzzleness" re-creates the sense of discovery encountered in the actual church. The Holy Sepulchre is a mess—destroyed and often rebuilt, it is a labyrinth occupied by seven traditional Christianities that are hostile to one another. Handling these models very much affected how I thought about them. These sixteenth-century structures provide an example of the kind of historical specificity I want to introduce into an otherwise rather theoretical study of models. In the seminar, students will consider a particular model of their choice, one that they can actually manipulate as well as analyze within a broad theoretical framework to better understand how a model models its observer.

NR That way, you can integrate your interest in the new digital models and spaces from your current book along with game software modeling the students can try?

AW The game Assassin's Creed: Revelations has a reconstruction of the Hagia Sophia that offers the best understanding of the structure apart from being in the building. As a player, I can become a tourist, getting a sense of the space and studying the mosaics. I'm hoping to get someone from Ubisoft to talk to the seminar about the digital production of such historical models.

NR Will your other class be related to your work on Jerusalem?

AW The other seminar is an investigation of Jerusalem, working toward a theory of the relationship between topography and power: heights with their connection to religion and state dominance; warrens that are underprivileged and overpopulated; peripheries, the site of colonization; and breaks, the dangerous rifts between neighbors. I am addicted to Jerusalem, and I mean that quite literally. I am repeatedly drawn back to the city by my human friends and architectural intimates there, but Jerusalem is not good for me. I always come back from the Holy Land deeply depressed by its unholy violence.

I look forward to my semester at Yale. Because Duke doesn't have a school of architecture, I haven't had the opportunity to teach architecture students. I anticipate learning a great deal from them.

Lisa Gray and Alan Organschi

Lisa Gray (BA ’82, MArch ’87) and Alan Organschi (’88) of New Haven-based Gray Organschi Architecture are the Louis I. Kahn Assistant Visiting Professors this fall and will give the lecture “Scarce Means Alternative Uses” on September 4.

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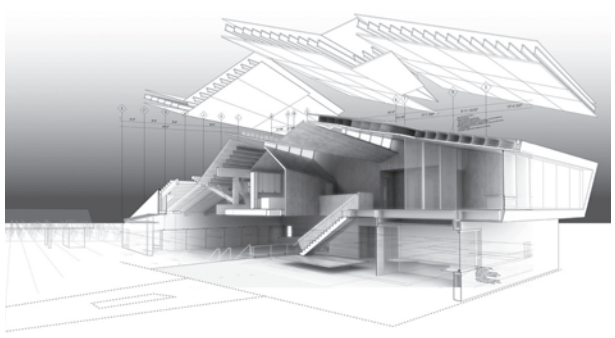

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1. Gray Organschi Architecture, rendering of Common Ground High School, New Haven, Connecticut, 2014.
2. Gray Organschi Architecture, section of Common Ground High School, New Haven, Connecticut, 2014.
3. Gray Organschi Architecture, Fairfield Apostolic, Fairfield, Connecticut, 2013.

Nina Rappaport You are known for a strong practice focused on design-build. How did this practice and feedback loop between the two sides of design-build, inform the design and the materiality of your architectural projects?

Alan Organschi A workshop was part of our practice from the outset. The benefits of seeing firsthand how the details of a project would play themselves out in actual construction were huge. Mostly, we just learned to predict where conflicts would arise, say, due to the limitations of a material or the complexity of an assembly process. In a sense, we got to rehearse our work. The downside of this early approach was in the enormous pressures of time and cost it introduced. When you’re forced to conceive of a building and then actually produce it, design conceptualization can become something of a casualty in the process. We’re still learning how to do both.

Lisa Gray I think there’s important feedback between a project’s parameters and finding the most appropriate and compelling set of solutions. When a project comes to our studio, it’s natural for us to imagine how that problem could be solved in wood, because we have special experience with it and we feel it’s a great material for environmental reasons. But we love the texture and richness of an interplay of different materials—in our practice as well as our buildings. Each project has its own particular set of conditions, so wood may not always be the right choice.

NR How has your design-build shop, JIG, become a separate entity from your architecture firm, Gray Organschi, and how do the two practices relate?

AO Although the work of Gray Organschi Architecture and JIG is still deeply intertwined, insurance requirements for a design-build firm were too stringent. We were giving our insurance company fits and finally reconciled to partition the business, a move that coincided with formalizing our contract with the City of New York through the DDC Design Excellence Program. And it turned out to have made good financial sense because now JIG is doing its own fabrication projects and construction management. Dan Kazer, technical director of JIG, is currently supervising a private-house project, and JIG is performing as the construction manager for the Steep Rock Bridge. Everybody in the office loves being involved in some aspect of fabrication or construction. So, there is a business division but not a conceptual or spiritual one. In the future, we might decide to have JIG work with other architects, as well.

LG We’re increasingly interested in buildings that we don’t touch at all. Architects can actually have more agency by acting as orchestrators of a large group of players. Public buildings are obviously going to public bid and will be built by other entities. For instance, we’ve proposed using glulam construction for the Staten Island South Shore Little League stadium, a structural material that is new for the DDC. The material is perfect for the application of the cantilevered wood roof; we are giving input on construction sequencing to help bidders understand and plan the process.

NR How is your own work shifting in this direction with more complex projects?

LG The bridge in the Steep Rock preserve in Washington, Connecticut, is not complex, but it is very public and entails work in a beloved and ecologically sensitive site. The design entails a series of carefully planned operations that limit our presence and our impacts on the wetland there. Prefabricating parts in a factory reduces cost and helps reduce disruption of the environment. Most contractors would add significant costs and time to execute what we conceived as a simple set of operations. As construction managers in charge of each sub, we can deliver projects that others might have been perceived as being complicated. When faced with the more conventional delivery methods of larger projects, we work with limited control of means and methods, and we have to articulate them clearly in our contract drawings.

NR As a couple that has succeeded in working together for nearly twenty years, how do you divide the work—beyond that Alan teaches and Lisa doesn’t?

AO Well, I think this question is a good way to demonstrate our actual division of labor—Lisa, you go first!

LG Of course, we have different predilections and areas of expertise, but we both have a very roll-up-the-sleeves and hands-on approach. Out of that has evolved an office structure that I’ve designed to reflect our different approaches. I am more focused on the office management and residential projects, but we both felt strongly about pulling back from building everything we design in order to work at the larger scale on public projects while continuing our residential practice.

NR Is it difficult to maintain design control as you jump to larger projects? When has jumping scales hindered the attention you prefer on a project?

AO Each time we jump scale we stumble and make mistakes. When we can’t control implementation we have to be more innovative in the way we develop the design and its documentation to keep the work buildable but formally, spatially, and materially rich.

NR A good example of this is your environmental Common Ground High School, in New Haven: the building itself is a kind of blackboard, a learning tool for the students and the teachers. Was the project also a learning curve for you? How did you use it to integrate your interests in ecology and materiality?

AO Our early experience with structural mass timber—heavy, engineered wood systems—rather than more conventional light wood framing has led us away from a craft approach to a more industrial one. And that has shifted our thinking to the impacts of building at a more global scale. The Common Ground High School is committed to teaching local, often inner-city kids through an ecological curriculum that understands the relationship between local actions and global effects. The client is incredibly sophisticated and has embraced the exploration of a new sustainable material culture as well as the long-term performance of their own building.

LG It is a privilege to work with mission-based clients; this particularly well-informed and very thoughtful group selected us because they felt we would help them realize a building that would express their objectives. A high-performance building like this one costs more, and it’s extraordinary that a publicly funded Connecticut school could become a model in a new environmental building culture.

AO That’s an important point: in our more public projects—whether the Little League grandstand, the new high school, or the Jesuit home and community center—we have been fortunate to have clients who are trying to convey a message to a larger community about who they are and what they want to be. It makes the design process more than a pragmatic exercise in programmatic organization or cost savings. These groups came to us with clear constraints and demands, but they asked us to make something beautiful that tells the story of their community or institution. Their mission, and the particular sites they chose to build in, formed the conceptual basis of our work.

NR Alan, how has your research into the properties of high-performance timber been incorporated into the new school building?

AO The project brief challenged us to make a building that articulated environmental principles to the students who would use it. Early on we have been forced to contend with the provenance and properties of materials—where they come from, how do you get them here, what does a material do when you change its shape or apply it in a particular way. Slowly, we shifted those questions from the more immediate issues of craftsmanship to larger issues of environmental impacts and resource allocation. The school was a chance to use new material systems with the lowest possible embodied energy and CO_2 emissions while still achieving the highest feasible standards for air quality, thermal performance, and day-lighting. The story of a panel of black spruce-cross-laminated timber is pretty straightforward, easily traced, with very visible and therefore comprehensible environmental impacts. The process of assembly is obvious; the experience of it in the spaces of the finished building is unmediated. The students can look out a window and see a tree. They can make the connection. It’s pretty elemental.

LG In our first ten years working on houses, we learned from construction managing and design-building that we needed to design the whole building-delivery process, not just the building form and organization. And I’m very interested in all of these processes. What do you set in motion when you make a set of drawings—what are you really asking people to do? How conscious are you about the requirements you are proposing? I think the architectural profession has to take ownership of the huge amount of consumption we’re demanding.

AO Lisa uses the term *orchestration,* and that characterizes the improvisational side to our work. We are not manufacturers of building products. But we like to understand the processes so we can manipulate them where possible. Not everything can be a one-off—although, as designers, we do like to try to reinvent the wheel from time to time.

NR How has your education at Yale and your teaching of the Jim Vlock Building Project influenced you? What drew you back to New Haven, and how has the place shaped your firm’s identity?

LG New Haven and Yale are distinct entities, of course, but they mix in interesting ways. It’s a place where you can have wonderful space that is not that expensive, which was very important to us when we started out. We came back from Berlin, in 1994, wanting to hang out our own shingle. I think that’s part of the culture at Yale—or maybe we went there because we are wired that way. And we are in striking distance from New York clients. The school is also an incredibly rich resource, obviously.

AO At first, New Haven was a way station between larger cities until we realized the benefits it could provide us. We discovered the great opportunities it afforded a young practice, and teaching here followed later. I had incredible classmates at the school—one of them, Lisa, is now my partner—and some really important teachers. Yale was quite different in tone when we were there; it was a make-your-own-way kind of place. Dean Stern has changed that culture to a degree—tuned it, professionalized it, taught it some manners. But the essential DNA, that obviously informed our current practice, and is still intact.

NR What will be the focus of your advanced studio this semester?

AO Our studio will explore the architectural potential of new timber technologies in contemporary architecture. The background for the work is a recent challenge by US Secretary of Agriculture Tom Vilsack and the USDA to fund and develop proposals for high-rise and long-span-timber architecture that will reinvigorate a rural manufacturing sector while responding to America’s growing urban demographic and the global environmental imperative of reducing CO_2 emissions in the building sector.

LG The students will design a live-work district on a site along the Mill River in New Haven, a timber innovation zone centered in a once robust but still functioning manufacturing zone around the English Station power plant on Ball Island. The studio will travel to Helsinki, Switzerland, and Austria to examine wood architecture and urban timber construction as well as the political, economic, and cultural apparatus that produces them. This reflects the true motive of the semester, a new design culture that revolves around abundant and renewable material resources.

Bruno Latour “What is there to say that they don’t know?

The Whitney Center for the Humanities at Yale invited Bruno Latour to deliver the Tanner Lectures this spring.

When Bruno Latour announced to the U.S. customs official that he was entering the country to give the 2014 Tanner Lectures at Yale, the official replied, “What is there to say that they don’t know?” When Latour recounted this anecdote, at his lecture, the Yale audience members offered the ready laughter they had cued up for the opening anecdote of any lecture, this time amplified by what appeared to be a compliment from a world-renowned figure. And they were also pretty sure that they had understood the lecture so far.

Yet was part of the joke lost on this audience? Just before the anecdote, Latour offered a caution about the reception of his talk by reading a quote from A. N. Whitehead: “The critical school confines itself to verbal analysis within the limits of a dictionary. The speculative school appeals to direct insight and endeavors to indicate its meaning by further appeals to situations which promote such specific insight.”

There is a chance that Latour left many behind at this initial fork in the road between what he characterized as “safe” and “adventurous” thought. The Yale the customs officer described was presumed to be a community that was certain of what it knows—a reservoir of accumulated and verified knowledge that could be stored as if it were a dictionary entry or an artifact in a museum. And the Yale community may have regarded itself in that way. But Latour has spent his career questioning this certainty. The institutions, academic and otherwise, that are convinced of not only what they know but, more importantly, how they know are his perennial critical subjects. Over and over in the Tanner lectures, he continued to question how it is that we think we know anything.

The two lectures—titled “How Better to Register the Agency of Things” and subtitled “Semiotics” and “Ontology”—were remarkably, perhaps deceptively, simple. They built upon a fundamental premise of Latour’s work: that the world is made of actors or actants that are defined by their actions—their relations and resistances to each other. Arguing that we often observe active scientific phenomena until we think we can declare “what it is”—its stabilized, essential “competence”—Latour suggests that “what it is” can never be separated from “what it does.” He has repeatedly cautioned against separating object and action, competence and performance, or actors and actants and their networks. In this way, nothing can be *merely* an object.

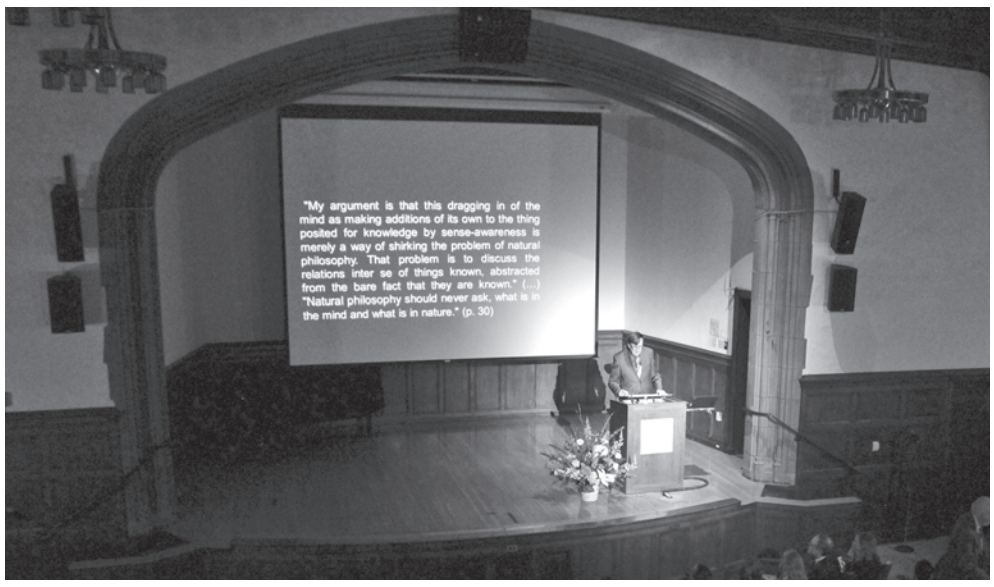
Latour expressed concern about moments of discovery, when we declare what we know. He used the example of cotton wool, which we might declare to be an object that absorbs liquid only after observing its performance over time. He played a 1969 audiotape of scientists first observing a pulsar, a star that emits a beam of electromagnetic radiation that can be seen only when it is aimed at the Earth. It was a moment in which the star’s ongoing performances coalesced to produce a visible phenomenon that constituted a discovery, something that could be named within a vast trajectory of time. Latour said, “We may not pick and choose,” or exclude evidence about the continuous performances of anything—from humans to technologies to subatomic particles—to fit a presumed theory. The very faculty for discerning essential attributes, or “competencies,” can be deployed in ongoing, “painstaking” speculation, or it can be used reductively to arrest inquiry. Thus, the ambition to discover can foster the opposite of discovery by obscuring the very information it hopes to reveal. “You have to show what it does if you wish to say what it is,” he argued, suggesting that “recovery of a competence through performances” might be a better way to describe “discovery.”

From this premise Latour has, among other things, renovated social-science studies. Critical of research on sociotechnical networks that seemed designed to confirm existing social-science presumptions, he proposed a more radical inquiry. An analytic framework that Latour calls Actor Network Theory considers not only humans but also technologies as actors, as non-human actants influencing the desires of social networks that reciprocally shape them. Actants (a term borrowed from semiology), too, are “doing something.” Things that induce relational action from humans are actants. Rather than reinforcing existing assumptions, Latour calls attention to an unfolding trajectory of activities between humans and non-humans that is harder to fix. In a simplistic example, a computer is a technology shaped reciprocally by humans who are, themselves, altered by what the technology is doing as they continue to invent and shape a spread of attributes that we commonly call a “computer.” In an example Latour has used previously, a door-closer is a technology invented by humans to replace a human servant that then evolves to change the social culture from which it emerged.

But beyond the human/non-human binary in sociotechnical phenomena, this habit of mind that allows not only objects but also actions and performances to be carriers of information is perhaps under-rehearsed but potentially nourishing in many other fields, as well. Characterizing the depth of inquiry and inquisitiveness shared among all disciplines, Latour laughingly cheered at the end of his first lecture, “Hairsplitters of all disciplines unite!”

Latour began the second lecture, subtitled “Ontology,” by saying, “Scholars … are those who try to make sure that, when an agent is introduced into the world, its disposition, or its competence … is always connected with its action.” Scholars theorize to expand their vision and to change their habit of mind. They are not unlike the plant that, having had so much success with photosynthesis, concludes the entire world is run from chlorophyll. False assumptions can quarantine information in a ghost or phantasm of knowledge. Latour reiterated, “When we encounter entities,” we do not want to “immediately lose track of them by treating them as objects,” but, rather, we must engage in unfolding inquiries with an agile, “porous” mind.

The use of the word *disposition,* the references to the mind-body problem, to the “ghosts” of knowledge, and even to the plant’s implicit category mistake seemed almost to call for a walk-on by Gilbert Ryle (1900–1976), a British philosopher who is not counted as among those formative in Latour’s thought but who might productively lead back to the question of how we know what we think we know.[1] Ryle coined the term “the ghost in the machine” to confronted the fallacies of mind-body dualism. He considered the very practical ways in which we express latent properties and propensities—what he called dispositions—in everything from glass and elastic to humans and animals. Glass could be brittle, rubber elastic, dogs aggressive, or, to use Latour’s example, cotton wool could be absorbent. Dispositions reference the multiple performances or capacities latent in an entity. Stretching through time and not necessarily constituting an event, these dispositions confound those who measure intelligence by “knowing that”—that is, the correct answer or the dictionary definition that Latour references by way of Whitehead. Still, these dispositions are perfectly normal for those who are comfortable with “knowing how.” Since they combine competences and performances, dispositions are *indeterminate to be practical*. At one moment in the talk, Latour expressed some discomfort with the title of the series, “The Tanner Lectures on Human Values.” Patting the podium as if it modeled something like the sturdy pile of foundational knowledge that the lectures hoped to accumulate, he questioned his willingness to contribute to a conversation that stabilized “human values.”



Bruno Latour lectures at the Whitney Center for the Humanities, spring 2014.

In the second lecture, the pressing collisions of scientific observations and human “values” with regard to climate change were most intensely present as both content and the fuel to ignite political action and scientific inquiry. One of the best questions after the lecture, from architecture PhD candidate Kyle Dugdale, compared two of Latour’s seemingly contradictory admonitions. While Latour had advocated working with evidence slowly and painstakingly, he had also repeated the Homeland Security dictum (in a country of climate-change deniers), “If you see something, say something.” Grateful for the question, Latour responded by using Al Gore’s *An Inconvenient Truth* as an example. The evidence of climate change, about which we might raise our voice, must nevertheless be regarded as the constant precipitant from a changing network of conditions. Similarly, the righteous sense of a political declaration cannot simply be satisfied with being right (or “knowing that”). Gore cannot simply expect that the world would instantly be convinced of his truth. His argument must also sift through and encounter a complex political matrix if it has any hopes of success.

Latour, who is inquisitive, modest, generous, and funny, handled this and other questions with what has become his hallmark disposition. He moves through evidence while opening doors on an expanded territory of investigation. Latour concluded, “To be a subject encountering an object is no longer a viable position. At least, it is no longer the only one that allows us to decide *where in the world we stand*.”

While claiming to know very little about architecture, Latour graciously agreed to join some architecture students and faculty for a discussion the following day. He is widely read in schools of architecture, and architects made up a significant portion of the audience for both Tanner lectures. Latour is read in part because architecture and urbanism contribute to the social and technical space about which he and his colleagues have productively speculated. His work is also nourishing to long-standing speculations about the powers and additional valences of objects. Latour theorizes and implements expanded powers of form-making—an aesthetic and political field of manipulation surrounding this object form. When no object can be seen without its actions, then spatial practitioners can shape its actions—its active form as well as its object form—with some sense of the consequences of those actions. For some in the architectural community, this expanded power is unfamiliar. Rather than enhancing the powers of the object, activities and relations are regarded as a challenge to the exclusive primacy of the object. By placing Latour’s theories in a false opposition to metaphysical questions—a duel as category mistake—some have used Graham Harmon and “object-oriented philosophy” to disarm or confirm his theories as not presenting a challenge to this more narrow view of form. Harmon—who has attached himself to Latour as an interlocutor and constructs philosophy in a style that embraces his subject until an insufficiency appears—argues that objects may retain some qualities of objecthood beyond their network of associations. Offering more of a puff of smoke than a duel, these arguments do not fundamentally disrupt the extra capacities that Latour’s theories hope to make available. While neither theory nor construct disrupts the other, the *disposition* to eliminate rather than expand powers may nevertheless be comforting within the discipline of architecture.

But then, “What is there to say that they don’t know?”

—Keller Easterling

Easterling is a professor at Yale and author of Extrastatecraft: the Power of Infrastructure Space *forthcoming this fall from Verso Books.*

Note

1. Gilbert Ryle, *The Concept of Mind* (Chicago: University of Chicago Press, 1949), 27–33, 42–43. See also, Jason Stanley & Timothy Williamson, “Knowing How,” *Journal of Philosophy*, 98: 8, 2001.

Archaeology of the Digital

Archaeology of the Digital, the first of a series of shows curated by Davenport Visiting Professor Greg Lynn and organized by the Canadian Centre for Architecture, was exhibited at the Yale School of Architecture Gallery from February 20 to May 3, 2014.

"The double meaning of the Italian word *tempo,* which signifies both atmosphere and chronology, is a principle that presides over every construction; this is the double meaning of energy that I now see clearly in Architecture."
—Aldo Rossi, *A Scientific Autobiography* (MIT Press, 1981).

I

History has unfinished business with the computer. It is no longer the Rorschach test of two decades ago, when this nominally neutral tool was a polarizing totem of paradox. We have gone through the looking glass, and, as with all history, the digital turn now feels inevitable. We find ourselves at the end of a history or at least at an end of a beginning. In the interregnum, the transposition of attention from the past to the future has been as swift as it has been thorough, as Marxist readings of design culture have been supplanted by a phantasmagoria of cleanly manufactured proto-architectures. Today, hypermaterialism has replaced dialectic materialism.

Yet new anxieties have taken hold. Time and vision unfold to the fever-pitch metronome of a microprocessor's clock speed as transformation degenerates to agitation. And software-encapsulated knowledge irretrievably blurs the signature of the author. Critics may fear the computer is melting architecture, transubstantiating it into something altogether viscous, shifting architectural time from the practically geological to the frenetic and fleeting shadows of atmosphere. It is thus timely, in the anxious adolescence of the digital, to reflect on its infancy.

This is the moment for architecture's scientific autobiography.

II

A major new retrospective, *Archaeology of the Digital,* takes on that project and, with it, the elocution of the possibilities and struggles in, and the productive uses and misuses of the early architectural explorations of the computer. The first of a planned series mounted by the Canadian Centre for Architecture (CCA) and curated by Yale's Davenport professor, Greg Lynn, the show assembles projects of four designers—Frank Gehry's Lewis House, Peter Eisenman's Biozentrum, Chuck Hoberman's Expanding Sphere and Iris Dome, and Shoei Yoh's Kanagawa Sports Complex and Toyama Gymnasium—which inflected and shaped the conversation on digital design in the 1980s and beyond. Impeccably sourced and edited, the show draws deeply from both the CCA's archives and the collections of the individual architects, presenting models, drawings, and early computer-coded mappings that feel vital and fresh in part because they rewind to the moments of uncharted discovery.

Of course, the history of the digital may arguably extend much further back—at least to various design experimentalists of the 1960s, if not to the mathematical fascinations of certain Modernists. Yet, to paraphrase, if this was not the moment of first discovery, it is yet more significant for being the moment of last discovery, the moment design computation ceased to be reinvented and from which it's continuous history launched.

The ambition and precision of this broad section of work is profound; it is full of astounding virtuosity and remarkable invention. Yet it also shows computation emerging from the womb, as it were, kicking and agitated, in some cases heavy and unruly. There is a trace of a struggle, a long and stretching grasp for technique as second nature that is not yet at hand. This struggle underlies a conceptual and experimental potency in the projects that defies facile categorization or naive language.

Museographically, each project is its own environment, with its own conceits and fascinations, and there is a palpable sense in these multiple and polyglot paths of the openness of that particular historical moment. Curatorially, this plurality of early digital experimentation might be read as a natural history of distinct digital subspecies. Global chronology is wisely avoided for a more ecumenical catalog of multiple private chronologies and trajectories, explicit and implied, in the development of each project. Parallel worlds evolve in uneasy coexistence.

The CCA adapted the show for the Yale gallery with white, rectangular tables with Plexiglas covers to house the models. White walls divided the gallery into four sections to contain the projects. In those sections, digital screens featured design iterations alongside physical models. Visitors could, at the push of a button, expand and contract the scissor contraption of Hoberman's sphere.

In the context of *Archaeology,* the computer reveals itself as a machine for multiplying both language and media. Of course, it has always had the character of a transformation machine, a tool not so much of original inception but of projective distortion, of animate sculpting, and, most fundamentally, of *processing* and *transcription*. It is this theme that implicitly bound together the show: transformations of form, content, syntax, and structure played out in innumerable ways across the projects.

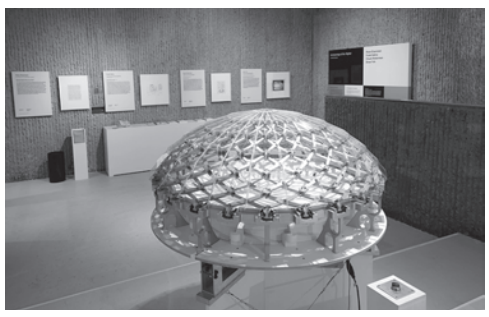
Among the most fascinating of these transformations are the projective and choreographed chronologies of machine instructions: programmed scripts and numerical matrices that sequentially record a narrative sequence of algorithmic assembly. Codes—operational scripts, indexed correspondences, and recombinant sequences—suggest a path through the exhibition that was less visual and more hermeneutic. Written in the specific machine operations of the computer, these codes are a literature of exact description, a kind of long-form ontology. Yet they are not monologues; in particular, Chuck Hoberman's marginalia on his own scripts and Eisenman's permuted genomes suggest that these scripts and transcripts themselves are very much process documents, even conversations. An audience now more fluent in these languages can read intent, join the conversation, and see a hint of the profound change to come, which would fuse culture, language, and toolmaking.

More generally, transcription is a constant theme—particularly that between myriad forms of digital description and visual, physical, narrative, and haptic manifestations. Naturally, drawings and models were shown to great effect; but the collateral and almost incidental means of representation fundamental to the digital process became, in the show, more pivotal to the transitional character of these projects. The evolution of the density of information—from points to curves to volumes and kinematics—becomes the kernel of ideas for many of these private syntaxes of graphic transcription.

The taut and fraught transcriptions of the digital play out tactilely in Gehry's Lewis House, which anchors the show. Though arguably the most well known of the projects, it ascends to its elemental best when the viewer is confronted with the luxury of the study models. The draped cowls and slatted, fishlike models show in visceral form the tension and reciprocity between desire and control that animates the most compelling of Gehry's digital work, which embodies a search for the elusive and illusory. They are the traces of a certain turbulent struggle to fold information, material, and architecture into critical unity.

In Gehry's drawings, there is also the suggestion of the ephemeral, even ghostly, effect of motion and virtuality. In this he is not alone: Hoberman, Eisenman, and Yoh each graphically evoke their own local chronologies of project logic. For Hoberman, it is the timed unfolding of intricate linkage structures; for Yoh, it is frozen moments of dynamic structural inflection. In each case, the drawings are merely a chronological moment within a more extensive sequence of transformation.






Archaeology of the Digital, Yale School of Architecture Gallery, Spring 2014.

Archaeology imputes to computation a new vital force of design, and, for some of the projects, a certain reading of organism is inescapable—from the living motion of Hoberman's mechastructures to the recombinant genetics of Eisenman's Biozentrum. Vitality often elides into physicality in muscular dialog with machine logic. Yoh's mesmerizing photo-elastic images, deformation studies, and isostatic analyses effortlessly concretize a vasculature that feels almost animal. Yet the algorithmic and generative quality of not only the forms but the elegant documentation presages a seamless connection between design, simulation, and making—a material condition that has become second nature.

III

Archaeology excavates the moment when the mathematics of materialism irrevocably changed. With the computer and its capacity to automate making, information gained the weight of matter. Even beyond that, the amplifying capacities of digital processes gave designers instant factories of sublimity not only in quantity but in velocity. Marinetti's *Futurist Manifesto* feels entirely apt here: "We declare that the splendor of the world has been enriched by a new beauty: the beauty of speed." Mental labor became instantaneous, and mental facilities became as interchangeable as software.

Notwithstanding the unceremonious displacement of critical theory by computation, it is, ironically, through Marx's lens that we can see these developments most clearly. What is computation but the organization and permutation of componentized, multiplied, accelerated labor? After all, Babbage himself, the Victorian prophet of the digital, saw computation as the transcendent apotheosis of Adam Smith's division of labor to the mental realm. Calculation was a type of industry, and the tools of mental automation (our software) were a peculiar sort of endlessly transformable capital. Epistemology is transcribed into labor and orchestrates physical material at the will of the designer.

Archaeology of the Digital is, thus, first and foremost a history of certain epistemic cultures and ontologies told through the remnants of fragmentary processes. It is in fact less an "archaeology" as such and more an "exhibition" in the Victorian sense with which Marx would have been familiar. Like the world expositions of the late nineteenth century, it is a sort of ethnography of distinct labor cultures, with their assorted material products serving to amplify their plurality and invite critical comparison. Like these fairs, the tools of manufacture—in this case, computers, scripts, and software—are shown or invoked, a reminder that what has emerged is neither craft nor precisely industry.

The show initiated the viewer into four different cultures, not of single architects and narrow obsessions but of extended economies of collaborators and tools. These cultures evolved idiosyncratic languages that were communicated through incipient digital nervous systems and driven by sharply distinct ambitions and ideologies. The show's catalog records extensive and often remarkable interviews with both the designers and their teams, hinting at a sea change in the social dynamic of design that has only begun. These economies profoundly separate these projects from the work of earlier digital experimentalists: the computer is not only a tool for design but also a medium and substrate for exchange, perhaps even a catalyst and lingua franca of a particular subculture. Yet, here, the exposure of process is the precise inversion of the typical expositional mode, which presents the artifacts as machined perfection. What we see in *Archaeology of the Digital* is something altogether more alchemical, a phase shift from one epistemic regime to another in all its messy and sprawling detail.

Archaeology of the Digital is both a coda for a specific era and a critical reflection on the certain strains within digital design that have tended toward cultural ambivalence in favor of devolution toward atmosphere alone. Pure amplification—a more-is-more instance of the baroque, the grotesque, the humanist-by-way-of-biomimetics—stops short of the intensive cultural creation we see in *Archaeology*. Perhaps the cultural independence (genetic isolation?) of these four groups from one another and their sometimes unselfconscious, idiosyncratic, and utterly inventive approaches contributed to their striking variety. But the seed of this fecundity lay, at least in part, in the need to describe, converse, and be described by the machine.

In fact, computation was the ultimate linguistic turn in design, not because the computer imposed any homogenous artificial language but, instead, because cultural languages were vivisected with technical ones. Code was grafted onto drawing; desire was spliced into scripts. In this moment we began to see with new eyes, to speak with new words, and to construct not only new spaces, but new cultures.

—Andrew Witt
Witt is director of research at Gehry Technologies.

Digital Post-Modernities: Fro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The J. Irwin Miller symposium "Digital Post-Modernities: From Calculus to Computation" was held from February 20 to 22, 2014, and was convened by Mario Carpo, the Vincent Scully Visiting Professor of Architectural History.


11

1. Mirko Zardini, Ed Mitchell, Sanford Kwinter
2. Bernard Tschumi
3 Alejandro Zaera-Polo, Charles Jencks, Sanford Kwinter, Emmanuel Petit
4. Benjamin Aranda, Paola Antonelli, Jenny Sabin, Phillip Bernstein, Matthias Kohler, Jennifer Leung
5. Michael Hansmeyer, Mark Gage, Philippe Morel, Alisa Andrasek, Fédéric Migayrou, Brennan Buck
6. Mario Carpo
7. Paola Antonelli
8. Emmanuel Petit and Charles Jencks
9. Lise Anne Couture
10. Dagmar Richter
11. Peter Eisenman, Chuck Hoberman, Greg Lynn

Although the death of the author was announced with much fanfare about a half-century ago, this news seems to have been slow to reach architecture. The field has long relied on a strong sense of individual authorship—the "starchitect" is only the latest iteration of this trend—and the cult of personality continues to serve as architecture's primary approach to both pedagogy and branding, shaping schools and skylines worldwide. There is an undeniable irony here, given both the inherently mediated character of architectural authorship (which entails designing architecture, not making it) and the inevitably collaborative structure of architectural practice (the small army of experts, consultants, and employees necessary to produce something as complex as a building). But in recent years this irony has grown far more acute as technological shifts have rendered the tools and processes that mediate between architect and building, connecting design to production, exponentially more powerful and staggeringly more complex, ineluctably altering the nature of the discipline and the architect's role within it.

It is perhaps not surprising, then, that authorship quickly emerged as the underlying theme of Yale's symposium "Digital Post-Modernities: From Calculus to Computation," organized by Mario Carpo, Vincent Scully Professor of Architectural History. It set out to examine the effects of evolving digital technologies on architecture over the past two decades. Greg Lynn's opening lecture suggested a kind of authorial paradox at the very origins of so-called digital architecture. Lynn presented an overview of a traveling exhibition he curated, *Archaeology of the Digital* (on view in the Yale School of Architecture Gallery at the time of the conference), which focused on seminal projects from the late 1980s and early 1990s by Yale's Peter Eisenman (who participated in the conference), Frank Gehry, Chuck Hoberman (also a participant), and Shoei Yoh, all at the forefront of digital design. Surprisingly, none of these architects actually describe themselves as having worked digitally. In their telling, new software undeniably expanded their reach but did not change the fundamental nature of their practice. In other words, as Lynn suggested, what we think of as the first digital architecture is the result of "thinking that actually predates the use of the computer."

This is most obvious in Gehry's work. Documentation of his Lewis Residence (1985–95), for example. On view in the exhibition, it shows software being used to rationalize and render buildable the extremely sculptural forms he first invented in fluid hand sketches or fabric models. Here, digital technology was primarily a form of reverse engineering, enabling the production of architecture that was more sculptural, mannered, and idiosyncratic—seemingly more directly linked to the architect's hand—than ever. Eisenman's case is slightly more complex, as his precomputer thinking was already focused on removing traces of the hand from his work. For example, he used various strategies of indexicality to produce complex overlays of form shaped ostensibly by their registration of historical or topographical conditions. But while his 1987 design for the Biocentrum (also in the exhibit and his first project for which software was used extensively) is certainly more formally complex than his previous work, the language is not fundamentally different. The computer's role may be more generative than in Gehry's practice, but Eisenman had already relied heavily on generative systems, such as his famous sequential diagrams, and so, in a sense, the computer simply amplified techniques he had previously employed.

The discussion following Lynn's lecture turned to his own pioneering digital project, the Embryological House (1997–2001). While the project was certainly driven by an interest in formal innovation—it remains, after all, one of the best-known designs of the "blob" era—Lynn also used it to keenly question the new status of both architect and object in a digitally driven practice. The project is less a building per se than a set of parameters for an iterative process, one that produces a vast series of possibilities: Lynn famously used his software to "design" thirty thousand variations of the house, almost instantaneously. This variability, rather than its curvaceous form, is the truly digital—and potentially most radical—dimension of the project. In response, Eisenman argued that this variability poses a dilemma: "How do you decide which house is the best?" Lynn replied that you don't—that is precisely the point—and this brief exchange laid the foundation for much of the following two days of discussion.

Eisenman fleshed out his position the following morning, opening with a complaint that the title of the session, "The 1990s: From Deconstruction to the Spline-Dominated Environment," implicitly mischaracterized a historical shift in architecture as the result of a particular computational technique (spline modeling) rather than the intentions of the designers employing it. While today's new technologies have complicated architectural authorship, he acknowledged, the author is alive and well, potentially more influential than ever. To illustrate his point, he drew an analogy to the showrunner, a hybrid figure that has emerged relatively recently in American television. As TV production becomes more elaborate, particularly for cable channels, showrunners keep everything going smoothly by merging management of day-to-day operations with artistic oversight and combining traditionally separated roles, such as writer, editor, and producer. This arrangement has expanded authorial control, resulting in a spate of highly personal shows that are rooted in a single, idiosyncratic creative vision—HBO's *True Detective,* the creation of showrunner Nic Pizzolatto, being Eisenman's personal favorite. Why, he implied, should the complexity of new digital technologies prevent architecture from undergoing a similar renaissance of the auteur?

In the same session, Bernard Tschumi's reminiscences about the now legendary "paperless studios" he oversaw as Columbia's dean in the early 1990s seemed to offer historical support for Eisenman's assertion that a designer's intent matters more than the tools he or she uses. By pointing out that the first paperless studios were taught as early as 1992, when the computers were not fully integrated into the studios until a year or two later, he echoed Lynn's observation that the arrival of the computer may not have been solely responsible for the birth of the style we now associate with early digital design. This observation was supported by Lise Anne Couture ('86), who taught paperless studios under Tschumi. She described some of her own early projects being guided as much by the effort to find an architectural language adequate to visualizing new data networks and information technology as by directly deploying new technology.

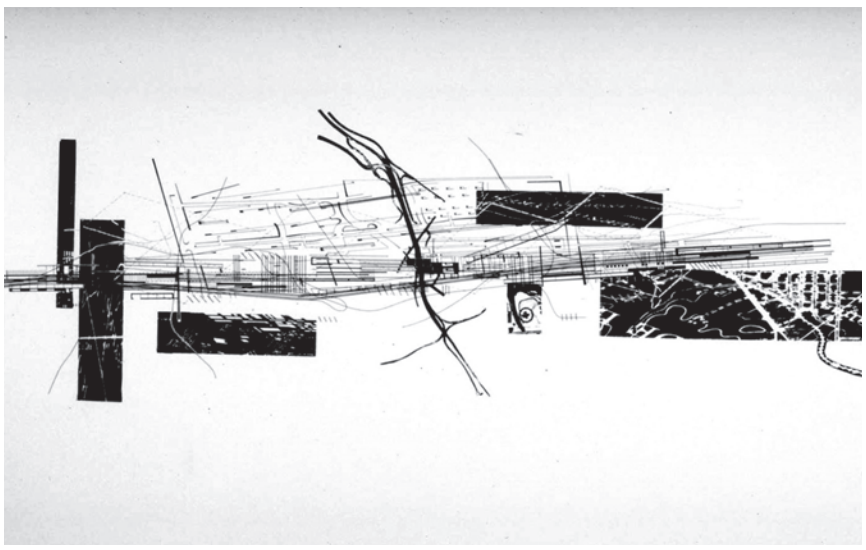
The following session, on Friday afternoon, presented a jarring contrast: frank admissions of reliance on digital tools were accompanied by a far more fine-grained discussion of their implications for the design process. Princeton's Alejandro Zaera-Polo's talk was polemically explicit in this regard. Cycling through slides of his student work at Harvard's GSD, he declared, "These drawings were only possible because I had learned the AutoCAD menu." He recalled rigorously structuring entire projects around the execution of a single AutoCAD command, for example, the one used to create ruled surfaces. While his implementation of design software inevitably expanded in his early built projects, such as the Yokohama Ferry Terminal (1995–2002), and while he was by no means implying that he had ceded his agency to the computer, he was unequivocal in his argument that these projects resulted from an intensive feedback between software and design intent.

In the same session, Charles Jencks and Sanford Kwinter (GSD Harvard) made a more sweeping case that the ideas of a given age—not only architectural designs but any form of knowledge—are essentially inseparable from the technology with which they have been articulated or produced. Jencks took a broad historical perspective, returning to the shift implied in the conference's title to identify an essential divide between modern thinking, which is fundamentally about simplicity, and postmodern thinking, which is fundamentally about complexity. The history of science, he pointed out, provides myriad examples of this transition. Classical physics, for example, was bent on giving order to the world by distilling the tumult of the universe into fundamental natural laws; contemporary particle physics embraces the riotous chaos comprising all matter. This was not, as Jencks was at pains to emphasize, an arbitrary shift; it was inextricably intertwined with the development of technology. If the modern scientific revolution was catalyzed by certain tools that enabled new ways of looking at, and thus understanding, our world—most famously, the telescope and the microscope, then the computer could be called "the postmodern microscope," its raw analytical power allowing complexity to be examined as never before. Out of new technologies, in other words, emerge new regimes of knowledge. Kwinter made a similar point in a discussion of real-time computing. Speculating on the possibilities offered by digitally enhanced environments—the kind of increasing interrelationship between reality and computational output suggested by, say, Google Glass—he pointed to ways in which the effects of technology extend beyond the production of ideas to the creation of new modes of perception and experience.

But what does such postmodern computational complexity really mean for architects? Arguing that the designer's intentions are circumscribed entirely within available technology would clearly risk a slide into technological determinism. Yet the increasing complexity of digital design tools presents a fundamental contradiction, addressed during the evening roundtable, in which Lynn and curators Paola Antonelli (Museum of Modern Art) and Frédéric Migayrou (Centre Pompidou) joined in on a conversation moderated by Yale's Peggy Deamer. On the one hand, digital tools unquestionably expand the architect's control by offering a vast range of new formal and procedural possibilities. On the other hand, these possibilities are enabled by the computer's ability to process a quantity of information so vast that it inevitably escapes the architect's understanding.

Mario Carpo summed up this contradiction in a discussion of new 3-D modeling techniques based on the voxel, a kind of three-dimensional pixel. These voxels have the potential to provide far more resolution than more established techniques based on splines or meshes because, with enough processing power, a designer can use a nearly infinite number of voxels to create any variation of any shape. Yet, although infinite variability seems to translate into infinite freedom—and it is noteworthy that such modelers do not bias a designer toward a particular formal language in the way that, say, spline-based modelers promoted sinuous, calculus-based curves—it also introduces a new problem. As Carpo asked, "Who notates each voxel?" Tracking and manipulating the position of every component within even a relatively simple model would be impossible for the human mind,

om Calculus to Computation



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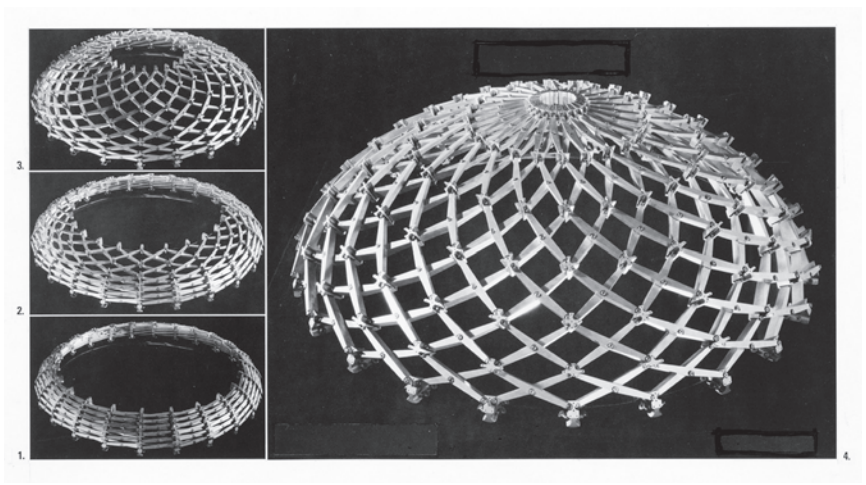

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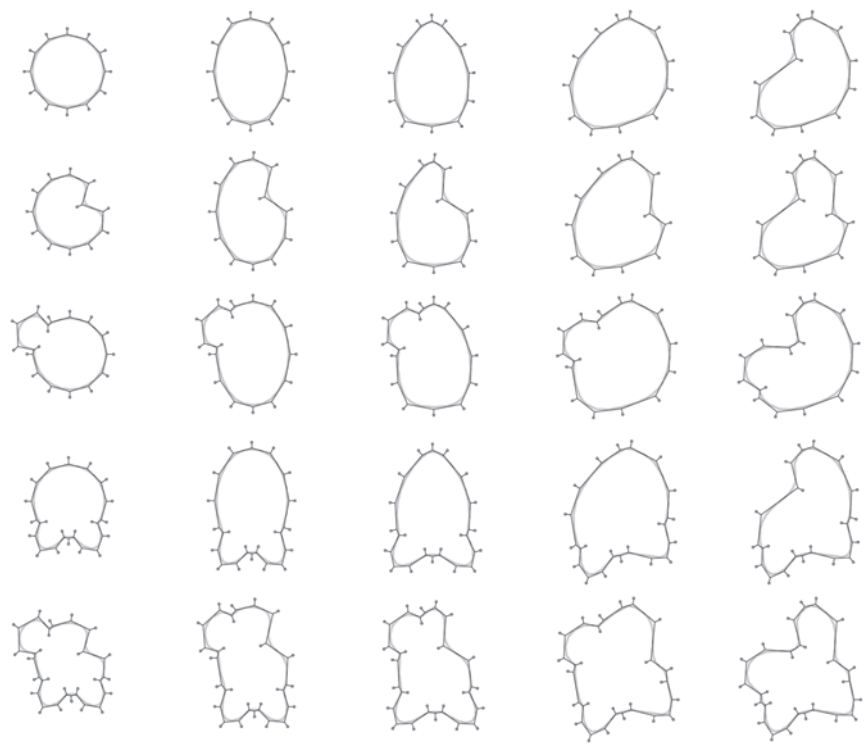

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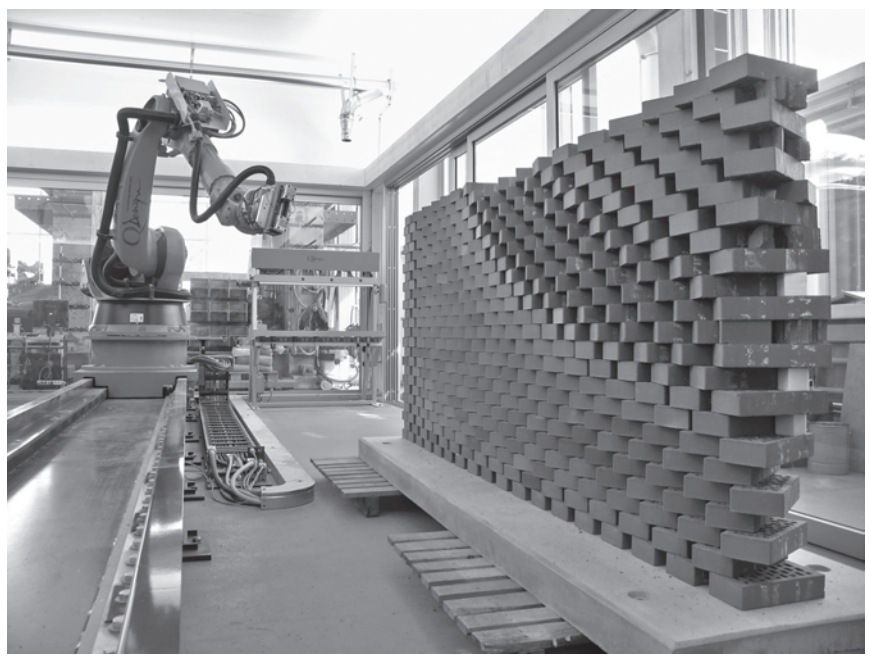

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so a designer must outsource this activity to the computer. At best, this may simply be an evolution toward a new form of mediated authorship, positioning the architect as a code crafter who sets computational parameters, rather than micromanaging formal outputs. At worst, however, Carpo's question conjures an architect alienated from the design process by the brute force required to carry it out, cut off from his or her own work by an algorithmic black box. Indeed, Yale's Phil Bernstein ('83), of AutoDesk, offered a dismal counterpoint to Zaera-Polo's story about exploring AutoCAD, remarking that, when he drives around most U.S. cities, he can easily identify which version of his company's product was used to make most buildings, illustrating how tightly architects are constrained by the software they use.

Antonelli pointed out, however, that a loosening of authorial control is not necessarily a bad thing from the perspective of a building's or product's eventual user, turning the discussion to what she calls the potential for "democratization of design." One effect of the unprecedented flexibility of digital design (and, increasingly, digital fabrication) may be to create a multiplication of consumer choice: the promise of mass-customization. In this case, one answer to Eisenman's question would be that the architect doesn't need to choose the "best" Embryological House; instead, thirty-thousand different homeowners could each choose the right one based on their individual needs. At its most quixotic, so-called "mass-customization" extends beyond choice to constitute a shift toward collective agency, wherein designs take shape in part based on user input, postulating an emergent crowd-sourced architecture for the age of the social network.

Yet, as the panel admitted in response to Deamer's queries, agency is ultimately relative. The "authorship" of a user customizing his or her own building would still clearly be circumscribed within the overall parameters of the system that brings it into being, from design software to production technology. A prospective buyer hoping for an Embryological House with, say, a rectangular dining room would obviously be out of luck. Even setting aside the question of such overarching structural constraints, in our era of big data, targeted advertising, and NSA surveillance, there is the real possibility that "interaction" would, at its worst, amount simply to sharing personal information and thus voluntarily submitting to profiling and control. How long after a newly empowered consumer orders an Embryological House would it take for Amazon to add circular dinner tables to his or her "Recommendations for You"?

Such questions are, of course, likely to remain purely in the realm of speculation for the foreseeable future, growing urgent only as the application of these technologies becomes more advanced. Appropriately, then, various forms of implementation were the main topic of the symposium's final day, although the foundations for this discussion had already been laid by Pratt's Dagmar Richter's incisive presentation the previous morning. Richter used the well-known fable of the ant and the grasshopper to outline two diverging trajectories of digital technology in architecture over the past decade. The ant, all business and hard work, represents the backers of BIM technology who used developing software to remake the building industry. The grasshopper, a carefree artist, represents the digital designers who carried out ever-more complex formal experiments (often using the eponymous scripting plug-in) with few practical applications. When the recession came—just as when winter arrived

12. Dagmar Richter, "Reading Century City," Structures and Infrastructure, 1994.

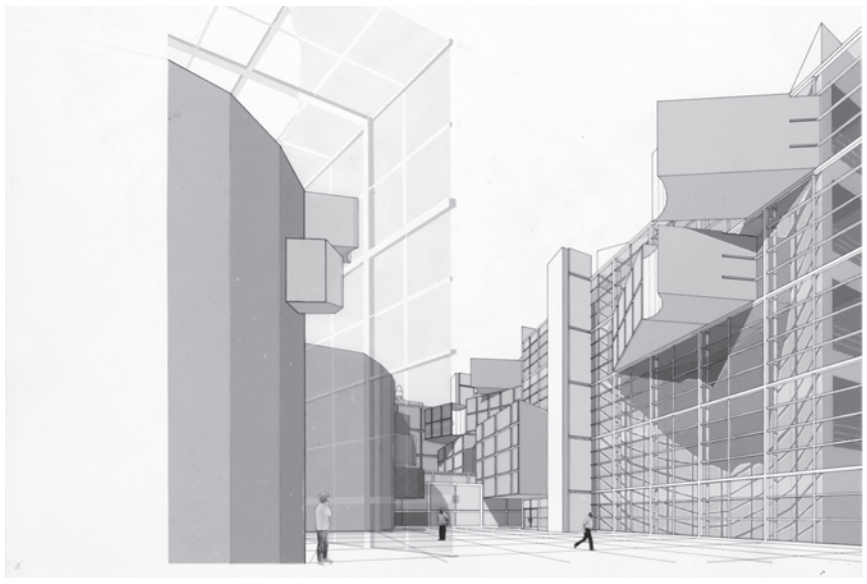
13. Alejandro Zaera-Polo, student project at Harvard GSD, view of the central atrium.

14. Chuck Hoberman, Hoberman Associates, *Views of an Iris Dome model*, 1993. Offset lithograph on paper with electrostatic print label, 27.7 x 42.9 cm. ARCH265772 Chuck Hoberman fonds, Canadian Centre for Architecture, Montréal © Hoberman Associates

15. *myThread Pavilion*, Jenny Sabin Studio, 2012, interior view for Nike FlyKnit Collective, Whole Garment knitted solar active, photoluminescent and reflective yarns, courtesy Nike Inc.

16. Greg Lynn Form, Embryological House, 1997–2007.

17. Brick curtain wall in robot production, Silban Oesterle, Gramazio & Kohler, ETH Zurich.



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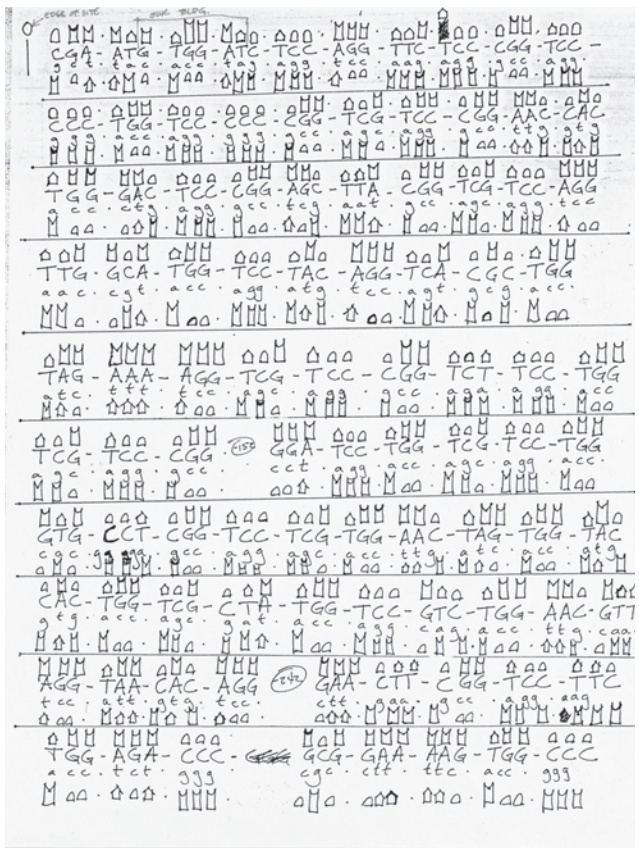

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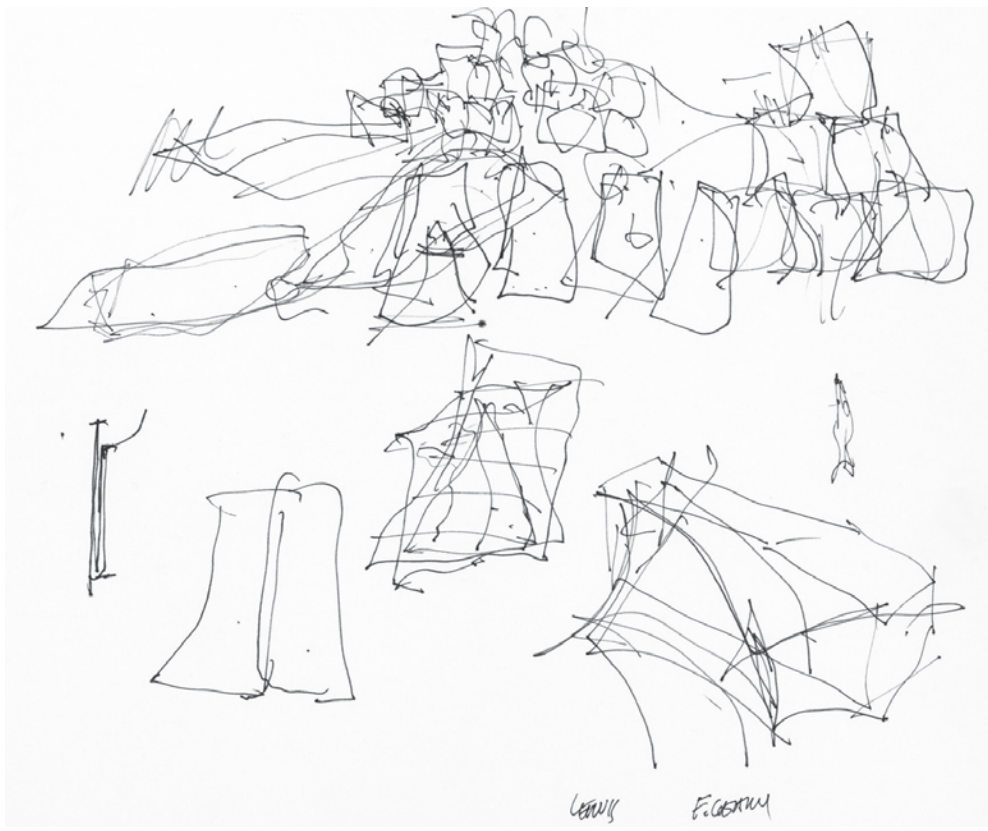

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18. Peter Eisenman, Eisenman/Robertson Architects, *Biozentrum, Biology Center for the J.W. Goethe University, Frankfurt am Main, Germany: Study Perspective*,1987. Graphic appliqué film on photoreproduction, 21.5 × 28 cm. DR1999:0585:009 Peter Eisenman fonds, Canadian Centre for Architecture, Montréal

19. Peter Eisenman, Eisenman/Robertson Architects, *Biozentrum, Biology Center for the J.W. Goethe University, Frankfurt am Main, Germany: Schematic representation of a DNA sequence*, 1987. Electrostatic print on paper with pen notations, 28 × 21.5 cm. Peter Eisenman fonds, Canadian Centre for Architecture, Montréal

20. Frank O. Gehry & Associates, Inc. *Lewis Residence, Lyndhurst, Ohio: Sketch of volumetric studies*, 1989–1995. Pen on paper, 22.86 × 30.48 cm Image provided by Gehry Partners, LLP

in the fable—the grasshoppers were left looking foolish out in the cold, while the ants' diligent hard work had prepared them for the lean times ahead.

A common frustration among advocates of digital design tools is that they have had surprisingly little effect on the reality of the built environment. (Lynn said as much when he lamented the fact that the most interesting work of recent years seems to have stayed inside the computer, a sentiment echoed by several other conference participants.) But Richter's presentation suggested that this is not necessarily the case, depending on what kind of effect one is looking for. BIM technologies have indeed profoundly impacted both the profession of architecture and the construction industry, but their primary effect has been in prosaic areas such as workflow organization and data management.

Bernstein took the increasing ubiquity of BIM as his starting point, opening his presentation by noting dryly, "Ambivalence about technology does not exist in the marketplace." Given that over three trillion dollars is spent on construction every year in the United States alone, there is enormous market pressure to implement any technology that will increase the efficiency of design and construction; hence, BIM's inevitable ascendance. And while Bernstein acknowledged that the study of market-driven pragmatics may not be of wide interest within the academy, he argued that the theoretical implications of the increasing use of BIM technologies reach much further. Since Alberti invented what we think of as modern architectural practice by separating architecture from craft and emphasizing the role of drawing in mediating between the two, there has been a fundamental disconnect between the delivery of ideas (by architects) and the delivery of products (by artisans or contractors) that lingers into the present. BIM offers a methodology in which the logic of construction is already embedded in representation. With architects and contractors working from the same information-rich digital model, design and making could be collapsed into the same process. Following Bernstein's presentation, Matthias Kohler (ETH Zurich), offered a glimpse of this possibility at a small scale in his experiments with robots fabricating masonry structures; here, the project's design exists not as a geometric representation of form but as a set of coded instructions for construction. In a discussion of her machine-woven structures, Cornell's Jenny Sabin described a similar process of bypassing traditional representation to directly materialize data.

In his 2011 book *The Alphabet and the Algorithm,* which examined many of the themes underpinning the conference, Carpo referred to the fact that all architectural ideas traditionally had to be translated into drawings before they could be constructed as a "notational bottleneck." For centuries, if a structure couldn't be drawn, it couldn't be built. While new software may come with its own bottlenecks—and it will always be important to question the agency of a designer (or any user) with a given technological system—it is clear that one of the most profound potentials of digital design and fabrication technologies, considered collectively, lies in eliminating this bottleneck: that is, giving designers an unprecedented level of access directly into processes of production. But while notational systems can certainly be regarded as limiting, it may be worth remembering that they also have historically constituted the primary discursive ground of architecture. Drawing, in particular, has long provided architects a space of disciplinary exploration and experimentation, valuable perhaps precisely to the extent that it provides a space apart from external logics, such as that of construction. Distance can be productive, after all, as can the very problematics of translation, as architectural historian Robin Evans famously noted.

One way to ease such anxieties is to remember that, in practice, paradigm shifts are rarely clear-cut and that the evolution of technology is often marked by unexpected historical continuity. Indeed, Migayrou opened the final session of the symposium with a kind of prehistory of computational design, examining a rich and impressively broad range of material, from Norbert Weiner's mid century invention of cybernetics to Constantinos Doxiadis's turn to early computer programming to aid his town planning efforts. In the following presentation, Philippe Morel (Malaquais Architecture School) quipped that Sigfried Giedion's classic examination of industrial-age design, *Mechanization Takes Command,* should have been called *Information Takes Command*, given that, even in that period, technology was becoming dependent on flows of information.

In the same session, Alisa Andrasek (The Bartlett), Michael Hansmeyer (ETH Zurich), and Yale's Mark Foster Gage suggested, perhaps inadvertently, another kind of historical continuity. The designers presented some of the most complex works of the conference, with projects such as Hansmeyer's Digital Grotesque Grotto (2013) and Andrasek's fissure Port Terminal (2010), far exceeding the limits of traditional methods of representation and fabrication and revealing a field of vastly expanded possibilities in terms of sheer visual and formal intricacy. Yet these projects (like many presented throughout the conference) were marked by an overwhelming prevalence of primitive typologies. Still all too recognizable beneath layers of digital incrustation were simple structures such as columns, walls, vaults, and domes, suggesting that computational complexity might lend itself far more easily to the profusion of surface effects than to the generation of new spatial or tectonic systems.

Admittedly, such a bias is due, at least partly, to temporary and, from a theoretical perspective, insignificant limitations, such as the current size of 3-D printing beds. Yet it also hints at deeper tensions within architecture's relationship to computation. Architecture is unquestionably complex, but is it computationally complex? Can the design of a building ultimately be converted into a computational process? Computers are very good at performing certain kinds of tasks (producing mind-boggling complex shapes, spitting out nearly infinite numbers of iterations with inconceivable rapidity) and solving certain kinds of problems (sorting information, optimizing parameters, making predictions and simulations). Considered not only as building but as discipline and cultural domain, architecture encompasses a vast array of qualities as ineffable as the intentions of the designer and the experiences and interactions of multiple users and publics, existing as a nebulous fluidity that remains relentlessly analog, irreducible to the discrete data points that are the foundation of any computational approach. And it is precisely because it seems unlikely that the complexity of architecture will ever map directly onto the complexity of computation (or any other single technology or technique) that some form of robust authorial role for the architect will presumably remain. We will continue to rely on architects, whether they sketch on napkins or write code, to help regulate the visual and spatial dimensions of the world we live in. After all, as Carpo wryly pointed out in his closing remarks, the digital era's proliferation of choice notwithstanding, "Nobody pays an architect not to decide."

—Julian Rose
Rose is a principal of Formlessfinder and a senior editor of Artforum *magazine.*

The Institute

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1. *Princeton's Beaux Arts and Its New Academicism*, a group exhibition at the Institute for Architecture and Urban Studies, 1977.
2. IAUS Fellows and friends at one of Peter Eisenman's Indian dinners, c. 1974. Courtesy Suzanne Frank.
3. Panel discussion at Yale on January 30, 2014. From left: Alan Plattus, Peggy Deamer, Diana Agrest, Peter Eisenman, Robert A.M. Stern

The Institute: A Spring of Architecture Made of We's

The Making of an Avant-Garde: The Institute for Architecture and Urban Studies, 1967–1984, written, produced, and directed by Diana Agrest, was shown at the school on January 30, with a roundtable discussion on the following day. The hour-long documentary includes excerpts from over twenty-five hours of recorded interviews with former fellows and trustees of the Institute for Architecture and Urban Studies (IAUS), as well as Agrest's own footage of the daily life and events (and many parties) from when she taught there beginning in 1971. The roundtable was organized and moderated by Ioanna Angelidou (PhD '18), and Tyler Collins (MArch '14), with the participation of Agrest; Dean Robert Stern; Peter Eisenman, the founding director of the IAUS; and faculty members Alan Plattus, Deborah Berke, and Peggy Deamer.

Peter Eisenman described the institute's beginnings, saying, "In 1965, when I was denied tenure at Princeton, I quickly moved to New York while organizing the institute with Arthur Drexler, a curator at the MoMA who was the motivating force. The original fellows were Bob Gutman, a professor of sociology at Princeton, and painter Bob Slutzky, who had written *Transparency: Literal and Phenomenal* with Colin Rowe. Emilio [Ambasz] designed the first poster, but he did not otherwise participate in the decisions. Burnham Kelly, who was the dean at Cornell, was on the board of trustees; he gave us the students of Colin Rowe. In spring 1968, we had our very own mini-revolution when Colin and his students wanted to take over. We had a midnight meeting with Gutman, Slutzky, Drexler, and myself and decided to have Rowe locked out. *Oppositions* started in 1973. Ken Frampton came in the spring of 1964 to the CASE [Conference of Architects for the Study of the Environment] event at Princeton with Vince Scully, Colin Rowe, and all the young architects of our generation. The idea was to start a magazine, and he [Frampton] was going to be the editor. Scully and Bob Venturi left angry, but that was good—it was the beginning of something."

Dean Stern contextualized the period that foreshadowed the birth of the IAUS: "What many people don't realize is how completely broken down architectural education had become in the late 1960s. The architecture schools were basically schools of sociology or political 'prepostery.' The discourse of architecture had completely evaporated, so the institute filled many voids. The timing was exactly right. It was a traumatic time, and out of the ashes of that moment the institute really took off. Its last moment of grandeur was, in my opinion, when Ada Louise [Huxtable] wrote about it in *The New York Times.* Once that happened, it was over—it was public territory."

Diana Agrest added, "I think, at that moment, the functionalist ideology was bankrupt. We didn't want to do architecture as form-function. That's where language came in; we wanted to look at form differently. That's why linguistics and semiotics came in. The IAUS had this impact on architectural education since it presented a different way to look at it. The institute made a difference because we were not just disseminating: we were presenting, cooking, producing, doing everything. We, ourselves! We were teaching there; we were doing our projects; we were writing; we were doing the programs—educational and public—and publishing a magazine. We were totally invested in the place, and that is what made it unique."

Peggy Deamer, one of the first interns at IAUS, described how she discovered it: "I was there between January and September 1973, before there was a formal internship program. I got there because I went to Oberlin College and the Great Lakes Collegial Association helped place students in arts internships in New York City. That's how I wrote to Peter [Eisenman] and said, 'I have a philosophy background, I know nothing about architecture, but I want my future to be in architecture. Would you take me?' I was just so delighted that there was a place to take somebody like me who knew nothing about architecture. The amazing thing was that having studied philosophy and linguistics, I arrived at a place where those were actually being studied in relationship to architecture. That, for me, was very profound."

Alan Plattus, who was at the institute from fall 1973 through the following spring, recalled, "One of the many things I did when I was there was the working drawings for House VI, which Randall [Korman] was producing for Peter. This speaks to the extent to which the institute was always a work in progress. Whatever there was to do, whoever was around was drafted to do it. I roomed with Rem Koolhaas for a whole year and lived to tell about it. He was at Cornell working with Matthias Ungers and fighting with Colin Rowe, so he came to the institute. There was an empty office looking out onto the Empire State Building, and we moved in there when he was writing *Delirious New York*. The world of theory was already heating up in comparative literature, linguistics, and philosophy departments, and the great discovery was to find this place where the interest in architecture intersected at a high level with such disciplines that seemed to be out in front of us. Architecture, thanks to the IAUS, seemed to catch up very fast to the extent that intellectuals such as Princeton professor Carl Schorske and French literature professor Peter Brooks, then at Yale, started coming to the institute to find out what was going on in architecture. It was an exhilarating experience."

Deborah Berke gave her take on a longer tenure at the institute, saying, "I was at the institute from 1978 to 1982. I started going to Open Plan [the IAUS evening lecture series]. They already had the internship and undergraduate programs. Diana was starting the advanced design workshop at that time, and I, along with Larry Kutnicki, went to the board of fellows and told them we would like to start a program for high school students. The response was along the lines of, "If it meets our standards and if you get your poster design to look like the rest of our posters and if we don't have to pay you anything, it's totally fine with us." So that's what we did. There I met Mario Gandelsonas, who was running the educational program at the time. He asked me to work with him, and from there I moved into teaching a studio in the undergraduate program, along with Steven Harris. The lecture series, exhibitions, catalogs, the *October, Oppositions, Skyline,* and Oppositions publications, four different educational programs, constant debate—every single thing was imbued with an idea, and there was so much of it."

The evening's discussion also touched on the institute's connections with places such as Cooper Union, Columbia University, and Princeton as well as the Architectural Association and its director at the time, Alvin Boyarsky. There was talk about other figures, such as Bernard Tschumi, the relationship between the Grays and the Whites (New York Five), as well as the so-called West Coast Silvers—Craig Hodgetts (MArch '66), Coy Howard, Eugene Kupper (MArch '67), Anthony Lumsden, former Yale dean Cesar Pelli, and Tim Vreeland (BA '46, MArch '54). Stern commended Julia Bloomfield for her high-level editorial work on IAUS publications and remarked that the founding of the institute was driven by Eisenman's nostalgia for a public forum like CIAM and Team 10.

Eisenman emphasized, "There was an immense degree of cohesion among us, a sense of pride in the mission of whatever it was we were doing. At the same time, there was an enormous anxiety and antagonism in the world out there to what the institute was doing. One always felt a little embattled. There were certain people who were very much against not so much what we were doing but how we were doing it. That antagonism permeates the architectural culture of the last fifty years in this country. The clichéd reference to the IAUS as elitist has to do with our relationship with Philip Johnson. He ran a show in New York City, a group of architects who used to hang out in the Century Club. He was the focus of anxiety."

Agrest argued that Johnson "came into the institute later, not when it was struggling and everyone was sticking their necks out." Stern contradicted this by claiming that Johnson's interest in the IAUS actually preceded its high times and added the anecdote that Johnson always referred to it as the Eisenmaninstitute. According to Plattus, what to some seemed like elitism and obscurantism had to do with the difficulty of some of the texts published by the IAUS, which "scared a lot of people when cigar-smoking, bearded, bomb-throwing people like Manfredo Tafuri showed up. It just confirmed the suspicion that the IAUS was smuggling dangerous ideas into the country."

The panel also discussed aspects of the IAUS that were absent from the film. Eisenman remarked that there was no mention of the fact that, besides *Oppositions,* the IAUS started the art journal *October* when its founding editors, Rosalind Krauss and Annette Michelson; were fellows there. Stern added that one of the figures who appears in the film, yet is neither interviewed nor mentioned by name, even though he was very important, is recently deceased: "brilliant graphic designer Massimo Vignelli." He created the look of *Oppositions* and many of the other publications, such as *Skyline*. Indeed, there was a strong idea of branding at the IAUS, largely the result of Vignelli's efforts.

A point not adequately clarified by Agrest's documentary is the profound historic reasons for the IAUS's end. However, the film was satisfactory in providing various answers, one of them Agrest's point of view that institutions of that kind have a certain life span. "At a very particular moment we put a lot into it, we got a lot, and then it couldn't go on. You know, the Beatles lasted fewer years, and they were the Beatles! There were many strong people; it's a miracle it lasted so long." To this, Deamer added that the institute's demise was not irrelevant to the fact that "the mission had been accomplished."

Thanking Agrest for her contribution, Plattus concluded, "Imagine if somebody had done during the CIAM meetings what Diana did for the IAUS. What an incredible resource and provocation that would be and how much more vivid all of this is because of the way it has been presented." Everyone seemed to agree. Earlier in the discussion, Stern had remarked that, although the timing of the institute was right, one could not start a similar institution today "because the need doesn't exist."

On that last point, I couldn't agree less. Comparing the debates produced by the IAUS and its journal *Oppositions* to current publications, Deamer summed up the struggle we are all faced with: "I don't think we read those in the same way we read *Oppositions*. We read these publications to get a sense of what's in the air, but not to get positions. I think we really read *Oppositions* to learn about what we should believe in because we wanted to take a stand." Isn't the idea of "taking a stand" exactly what contemporary architecture needs? The timing is really perfect.

—Gregorio Carboni Maestri
Maestri is an architect, visiting research scholar at Columbia University, and a PhD fellow at the Università degli Studi di Palermo. His dissertation is focused on Oppositions.

Fred Koetter Retires

On the occasion of Fred Koetter's retirement, professors Alan Plattus and Edward Mitchell wrote tributes.

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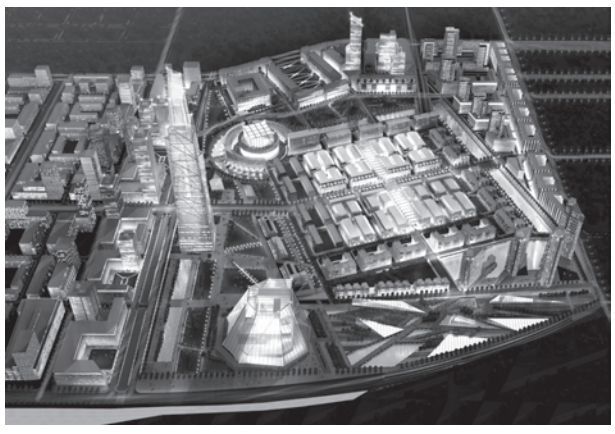

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Fred Koetter, Architect and Urbanist

Fred Koetter received his BArch from the University of Oregon in 1962, followed by his MArch from Cornell in 1966. That same year, the Museum of Modern Art published Robert Venturi's *Complexity and Contradiction in Architecture* and Aldo Rossi's *L'architettura della citta* was released by Marsilio, signaling to a larger audience the profound shift that was already well under way in architectural theory and pedagogy and would soon make itself felt in the realm of practice. Graduating in the mid-Sixties, Fred would be a leading figure in the articulation of that shift in all three areas: theory, teaching, and design.

Fred arrived at Cornell as it was being transformed by the northeasterly migration of the so-called Texas Rangers, notably Werner Seligman, for whom Fred would work during his first years in Ithaca; Jerry Wells, who along with Mike Dennis, would become Fred's partner in the Ithaca-based firm Wells/Koetter/Dennis; and, of course, the ring-leader, Colin Rowe, arriving via Cambridge University. There is a natural tendency to think of this group of young architects as students and even disciples, giving material form to, or illustrating the theoretical concepts and critical positions of their mentor, Rowe. However, the reality of the Cornell revolution in architecture and urban design was far more subtle and complex as it developed and spread over the subsequent decades, encompassing a wide range of characters—including Jim Stirling, who had studied with Rowe at Liverpool in the early 1950s; Peter Eisenman, who studied with Rowe at Cambridge; and even Rem Koolhaas, who spent a year at Cornell on a Fulbright fellowship—and, apparently, ideologically distinct sites, most notably Ithaca, Princeton, the Institute for Architecture and Urban Studies, Harvard, and Yale.

Perhaps more than any single individual including Rowe, Fred was the agent, ambassador, and constructive convener for much of this foment, so it is perhaps of no surprise that, right at the beginning of his contribution to the first issue of *The Harvard Architecture Review,* in 1980, tendentiously subtitled "Beyond the Modern Movement," Fred goes to some length to express his skepticism about the "staging" of theoretical oppositions that had, by that time, thoroughly obscured the historical, institutional, and discursive continuities underlying the discussions and design investigations that now get lumped together under the increasingly useless rubric of Post-Modernism. Indeed, when Fred and Susie Kim asked me to write an introduction to their first monograph, published by Rizzoli in 1997, the theme I chose was the *continuity* in their thinking and practice, between Renaissance humanism and Modernism, between the Modern movement and contemporary practice, and between the individual project and the city.

Fred has, in fact, never had much use as a critic, teacher, or designer for simplistic polemical oppositions (in spite of what some of the arresting slide-comparison illustrations in *Collage City* might seem to suggest) or for a rhetoric of exclusion or prohibition. His incredible facility as a designer has underwritten this stance, making it possible for him to include, enrich, and overlay where others would only exclude or juxtapose. But it is also expressed in his incredible generosity and open-mindedness as critic and teacher. That was my first experience of Fred, in the mid-Seventies as a student at Princeton, where he was a constant and refreshing voice at juries dominated by the largely macho bluster of critics determined to tell you what you had done wrong. On the contrary, Fred always seemed willing to entertain the possibility that any student's work might just have a glimmer of an idea worth pursuing.

At that time, Fred had just made the move from Ithaca to Boston, where, in 1977, he established the practice that would become, in 1983, Koetter Kim & Associates. After a decade at Cornell and an interim year at the University of Kentucky, Fred taught at Yale under dean Cesar Pelli and alongside Jim Stirling, among others, from 1975 to 1978. This first Yale sojourn is often forgotten, but I know from my contemporaries who were studying at Yale at the time that Fred had a huge impact and was a respected and beloved figure. Toward the end of that period *Collage City* was finally published, and a version of the central chapter, "The Crisis of the Object: The Predicament of Texture," was included in a curious blank-verse format in *Perspecta 16,* so that the entire issue bore the unmistakable stamp of Fred's influence. By the time the issue appeared in 1980, Fred had already moved on to the Graduate School of Design at Harvard, where he taught until he returned to Yale as dean in 1993. Fred's impact on the GSD was equally significant—witness, for example, the contemporary transformation in his colleague Michael McKinnell's work from Brutalism to contextual Post-Modernism. And as an occasional visitor, I remember his sane and constructive voice in the midst of an increasingly shrill and unconstructive ideological environment. Two of his best essays appeared in *The Harvard Architectural Review* in the early 1980s: the one mentioned above, "Notes on the In-Between," and, in the fourth issue, in 1984, a brilliant account of "Monumentality and the American City," which presents Fred and Susie's Boston Plan of 1982 in the context of one of the most perspicacious arguments I know about the role of architectural monuments and monumental urban design in American urbanism.

This is just one more reminder that the accusation so often leveled against the Cornell approach to urban design—that it is more grounded in the two-dimensional figure-ground representation of seventeenth-century Rome or eighteenth-century Paris than in the reality of the American landscape or the contemporary global city—is a convenient half-truth that may apply to the more mannered and academic manifestations of the school but misses the subtlety and critical acuity with which Fred has observed, and operated in, those settings. This appreciative incisiveness was anticipated in a largely forgotten 1957 essay by Rowe and John Hejduk on the courthouse town of Lockhart, Texas. But Fred's formulation of the characteristic American urban monument as a fragment and his"parallel observation that perhaps the City Beautiful's most significant contribution to American urbanism was its almost guaranteed lack of complete realization" were the most significant breakthroughs. He goes on to point out that "the partially built grand plan—the abbreviated monumental city—takes on a contrapuntal relationship to the circumstances of the city as found, stimulating an intermingling of various realities and dramatizing a critical coexistence of the heroic and the mundane, the planned and the accidental, the public and the private." Not only is this *Collage City* in a nutshell, it is a far more accurate and sophisticated reading of the American and the contemporary city than those polemics that simply celebrate the total—and totalizing—disjunctive liberation of architecture and the city, apparently from each other.

It is also the analytic and intellectual framework for the series of brilliant projects in the early 1980s with which Koetter Kim introduced and established its ongoing role in American architecture and urbanism: the Boston Plan, followed by the built and unbuilt projects for leftover sites such as University Park and Allston Landing and, finally, the Codex World Headquarters of 1983, which became, along with Jim Stirling and Michael Wilford's Stuttgart Staatsgalerie, the first major manifestation of the *Collage City* approach to monumental architecture. The late 1980s found Koetter Kim working on major campus plans and projects around the United States as well as going increasingly global, with an office in London initiated with an ambitious series of urban-design proposals that have opened up unexplored territory and possibilities in another historic city.

What is remarkable in all of this is that, as the practice and its field of operations have expanded, the intellectual commitment has remained robust and unavoidable and the range of issues, techniques, and interests has expanded to include new sites, new technologies, and important emergent concerns such as sustainability and climate. Rather than hunkering down and taking professional and intellectual shelter behind established positions—or, as has been more and more commonly the case, behind no position whatsoever—Fred continues to exhibit the same apparently casual, cheerful, and nonconfrontational—but always deeply serious—openness, curiosity, and spirit of exploration as an architect that has always informed his teaching. Indeed, I doubt he has ever drawn any of his many elegant and seemingly effortless lines without an idea behind it. I think it was Fred—although it may have been Mike Dennis—who said that, as an architect, one needs to be able to sing and tap-dance at the same time (evoking another performer named Fred). However, that does not do justice to a career that has been exemplary for doing so many things and engaging so many people and issues, very well indeed.

—Alan Plattus
Plattus is professor of architecture and urbanism and director of the Yale Urban Design Workshop.

Fred Koetter: Teacher

This spring, Fred Koetter announced his retirement after six decades of teaching, including stretches as a visiting professor at Yale, as the dean of the School of Architecture from 1994 to 1998, and more than fifteen years as a member of our faculty.

It has been my privilege to work alongside Fred since the fall of 1999, when we were paired as co-instructors in the

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1. Fred Koetter and Susie Kim in Aktau, Kazahstan, photograph by KKA.
2. Koetter Kim & Associates, The Boston Plan, Storrow Terrace, Boston, Massachusetts, rendering by Kelly Wilson, 1981.
3. Koetter Kim & Associates, Aktau City Expansion, Kazakhstan, rendering by encore nyc, 2007.
4. Koetter Kim & Associates, Codex World Headquarters, Canton, Massachusetts, photograph by Timothy Hursley, 1986.
5. Koetter Kim & Associates, Place de Martyrs, Beirut, Lebanon, photograph by Steve Keyser, 2005.
6. Koetter Kim & Associates, Physical Sciences Building, Cornell University, Cornell University, Ithaca, New York, photograph by Jeff Goldberg/ Esto, 2010.
7. Fred Koetter giving a desk crit at Yale, 2012.

post-professional studio. I knew Fred's architectural work and writing fairly well since graduate school at Princeton, where he had recently completed additions to the library and arts studios. More recently, I had encountered Fred on reviews at Harvard's GSD. Like many of my peers, I had assumed his interests were more conservative and pigeonholed his buildings as elegant contextual responses to the constraints of site and program. It was only later that I came to recognize his ability to make something entirely new and inventive that also was capable of restructuring the context in which it stood.

A colleague remarked that Fred's intellectual trajectory had moved from a rigorous formal approach, cultivated as a graduate student at Cornell, to the professional demands of turning those formal tropes into real places—sites for institutions, sensitive background buildings, and urban districts. On a Harvard jury, the context of a multimodal free-trade zone in Alliance, Texas, where Koetter Kim was working at the time, was elusive. However, as usual, Fred was able to clarify the design issues while expanding his comments to address the broader cultural and disciplinary implications.

Shortly after our first studio session at Yale in 1999, Fred asked to talk to me. His physical presence and resonant voice always adds gravitas to whatever he says, and I feared I had said something offensive, as is my habit in public reviews. "I'll see you in my office," he intoned as I followed him down the staircase of Rudolph Hall. I turned to exit on the third floor, but Fred stopped me and led me to his favorite Irish bar, across Chapel Street. "Do you want a pint or a pitcher?" he asked, and, thinking responsibly, I told him a pint was fine. "The pitcher's the better deal," he corrected, and from there we spent several hours talking about architecture, the school, and what we might develop in the new Post-Professional studio. Fred's depth of knowledge is encyclopedic, influenced by his mentor Colin Rowe, and he always offers complex and layered commentary—adding a dry sense of humor and unique insight that is always surprising and to the point. I learned to understand the many nuances of his most common critique—"Isn't that just great?"—which could mean any one of several different things, depending on his vocal inflection.

Fred's work with his partner, Susie Kim, at that time, was expanding into larger urban projects, and the globalization of the world's economy presaged contemporary architecture's constructive potential to destabilize historic cities, ecosystems, and cultures. Fred has the unique ability to see these larger forces at work and gradually distill them into a precise, concentrated, and memorable architectural solution germane to any site. Our studios, following his professional experiences, were always an improvisational, Popperian conversation, first among ourselves and then with the students, who groped their way through complex urban problems to find their own voices and present their work to a broad audience of critics, professionals, and civic leaders. As Fred memorably put it to a class late one night in the streets of Helsinki, in architecture "you have to walk your pet goldfish even when you are under water."

Against my initial expectations, Fred would always advocate for the most evocative and challenging student concepts, often leaving me to figure out how these could possibly be resolved. I mentioned this recently to his partner, Mark DeShong, who said Fred had told him about this several times. Fred, he told me, had been interested to see if I could figure out the solution rather than advocating a particular path himself. He always pushed me toward greater challenges. So although we shared teaching and I gradually assumed greater responsibility in the studio, I was and will always remain his most grateful student. But, I dare say, there are many among us who would echo the same sentiment.

Fred's intelligence, generosity, and dedication are gifts that many of us have shared. Like any great teacher, his subtle influence will certainly grow in importance through the many other teachers and architects that he has profoundly influenced. A particular criticism he made in one of our final reviews comes to mind. While the circus of critics had spent the day acrobatically twisting and turning their rhetoric, Fred made one, and only one, final comment on the student's proposal for a train station complex. He related how the designs of nineteenth-century English train stations, nodes in a system that connected to the eastern reaches of China, "were not designed to show where you were but where you were going." That is the challenge he set for all of his many students. Here's to you, Fred, our colleague, mentor, and friend.

—Edward Mitchell
Mitchell is an associate professor (adjunct) at the school.

Spring Events

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1. View of the the gold-leafed model of Rome, Peter Eisenman seminar students, spring 2012, installed at the Hearst Tower.
2. *To Draw Is to See*, Hearst Tower Gallery, New York, spring 2014.

To Draw Is to See: Drawings of Rome

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To Draw Is to See: Drawings of Rome, a collection of freehand drawings by Yale students that document, analyze, and reinterpret the city of Rome, opened on April 8 at the Hearst Tower, in Manhattan, accompanied by an evening discussion between Dean Robert A. M. Stern and faculty members Alexander Purves (BA '58, MArch '65), Sunil Bald, Joyce Hsiang (BA '99, MArch '03), Michael Graves, and Marion Weiss ('84). The exhibition and panel discussion was made possible by a new collaboration between the Hearst Corporation and the Yale School of Architecture that promotes thinking, seeing, and drawing by hand.

Also on display was the 3-D printed, gold leafed model of Nolli's Rome, that was created by Peter Eisenman's students in spring 2012 for the Venice Biennale's exhibition.

The exhibition occupied the upper lobby gallery of Sir Norman Foster's ('62) dynamic, multi-leveled atrium. Large-scaled drawings, some greater than six feet in length, both documented and reinterpreted significant architectural and urban spaces of Rome, using drawing and re-drawing to open up these works of architecture to inquiry, exploration, and invention. These synthetic works were accompanied by student sketchbooks that documented the ideas, diagrams, and details—raw material for the larger works. The work is a selection of drawings from the past five years of the annual four-week summer seminar held in Rome. Open to thirty students entering their final year of study, at virtually no cost, thanks to the generosity of Edward P. Bass (BS '68, MArch '72) and Frannie and Gordon Burns ('75), the class offers the opportunity to study historical architecture and urbanism while keeping a visual travel journal. Personal sketchbooks (or "windows into the students' visual development," as one professor noted) are the primary means through which students record and analyze their time in Rome, emphasizing the hand and the pencil as vital components of architectural education. The seminar culminates in a weeklong period of intensive independent drawing, during which students produce final compositions on topics of interest in the medium of their choice. The results vary in physical size and typological scope, from urban analyses to illustrations of tectonic detail. What they share is an increased awareness and understanding of architecture and its context that evolves only through focused observation and detailed interpretation on paper.

A summer enrichment opportunity, established eighteen years ago by Dean Fred Koetter, has been organized and taught for the past fifteen years by professor emeritus Alexander Purves and Stephen Harby (BA '76, MArch '80), with the more recent addition of Bimal Mendis (BA '98, MArch '02) and lecturer Bryan Fuermann. Purves stresses that Rome helps the students develop a "historical sense" of classical architecture and an appreciation for the "vitality of tradition." In this way, the program takes a pedagogical approach similar to that of the Grand Tours of generations past. Hand drawing has always been a tenet of architectural study at Yale. In this class, however, one can see how students depart from purely documentary accounts of historical landmarks and classical buildings. "The mechanical part is easy; the hard part is seeing," Purves admits. Through the seminar, students learn to slow down and take the time to truly "see" their subjects. They observe the fundamental elements of architecture, exploring the structures' historical evolution and continued relevance to present practice and learning.

To Draw Is to See shows how a wide range of ideas can be conveyed through artistic, analog means. While architects understand the practicality of computer-aided design, line weight and orthographic projection are limited in expression. CAD has become a necessary part of physical construction, but it cannot express architectural experience in a poetic way. Only the soft blending of charcoal or an uneasy corner, rendered in pencil, can convey a haptic quality.

These issues have long been discussed and became intensified at the Yale symposium "Is Drawing Dead?" in 2012, when six hundred academics, practitioners, and enthusiasts gathered to discuss the role of hand drawing in an ever-more digitized world. While there were no definitive answers, drawing was identified as a "post-form tool," as assistant professor Sunil Bald noted during the panel discussion. Students often relegate drawing to a final step in the design process, after panning through 3-D models and testing physical mockups. Classes focused on hand drawing attempt to reverse this role. Ideally, analog representation is a tool for discovery, not mere representation. Drawings are personal and, by default, a biased visual account, allowing for independent intuition and surprise in understanding architectural design.

This discourse remains vital at Yale through the support of Gilbert C. Maurer, director of the Hearst Corporation, who observed the seminar's final critique at the American Academy several years ago and was inspired to support programs based in analog media such as these. *To Draw Is to See: Drawings of Rome* was assembled with the help of Betty Levin, president, Corporate Art Directions; Anthony T. Mazzola, curator of Hearst Fine Arts; and Brian Butterfield ('11), the former director of exhibitions at the School of Architecture.

—Scott Simpson (BA '13)
Simpson works at Povero & Company in New York.

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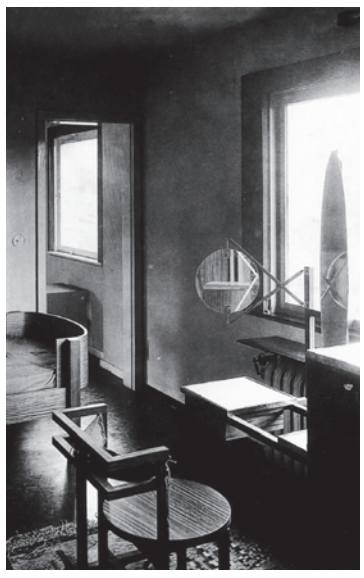

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1. Constantinos Doxiadis plan Islamabad (1959–60), courtesy of the Doxiadis Foundation.

2. Marcel Breuer, Haus am Horn, Weimar, Germany, 1923. Photograph courtesy of the Breuer Archive, Syracuse University.

Architecture Forum Series

This spring, in a third series of presentations "to facilitate greater dialogue between Rudolph Hall and the Loria Center," graduate students Ioanna Angelidou (PhD '18), Jessica Varner (MED '14), and Lucy Hunter (history of art, PhD '18) opened the floor for a rich and stimulating discussion in four sessions. The forum brought to New Haven architectural historians Mark Jarzombek, Alina Payne, Panayotis Tournikiotis, and Felicity Scott.

Drawn from different institutions on the East Coast plus one from Greece, these academics shared the ability to position architecture amid broader concerns, opening onto the geopolitics of education, domestic culture, and intercontinental urbanism. Few other similarities drew their projects together, which was an advantage for a series that presented a wide range of topics as well as thorough research into each avenue of inquiry.

Mark Jarzombek, professor of the history and theory of architecture at MIT's School of Architecture and Planning, inaugurated the series with "Architecture's History: Global Transformations in a Not-So-Global World." Describing the international practices that order the presentation of culture—such as UNESCO's guidelines for the maintenance of a World Heritage Site or art and architecture history textbooks—Jarzombek was quick to point out their Eurocentric bias and significant (if involuntary) consequences. Given the range of "heritage" that UNESCO preserves under the same conditions, unusual structures resolve discrepancies that the divergent situations present. Jarzombek cited the example of the Dogon, in Mali, an entire culture under UNESCO protection. To safeguard the nomadic tribe, systems that simulate the political boundaries of a nation-state are introduced. As he has written in *Art History and Architecture's Aporia*, "The UNESCO efforts, though meant to forestall the modernist eradication of history, bring into play an industrialization of cultural history that returns to conventions of the static 'modern' nation-state."

Jarzombek also pointed out the marginal role non-occidental cultures occupy in the volumes of architectural history textbooks. Thus, one is left to wonder whether architectural education can effectively venture beyond its Eurocentric, Modernist lens.

In "From Ornament to Object: Genealogies of Architectural Modernism," Alina Payne, professor of the history of art and architecture at Harvard, discussed the evolving relationship of architecture to objects. A great deal of Payne's research (for her book of the same name) proposes the object as the tangible product of ornament's disappearance. She notes that, "The viewer whose 'besoin type' and 'emotion type' Le Corbusier targeted, is literally asked to comprehend the 'city machine' and 'house machine' through the slippage from machine to art and back by way of the handheld object and its image… . The object and the *maison outil* ('house instrument') blend into one enhanced experience." This February, however, Payne argued that architectural ideas themselves have taken on the accoutrements of the object, and traveled to foreign shores, under this guise.

For Payne, the example of Split, Diocletian's city on the Dalmatian coast, clearly illustrates this concept. Perched on the shore, outlined with fortifications, and cloaked in white marble, the city has been inserted into its environment as a foreign object. Beyond the buildings and ramparts, the horizontal surfaces and the roadbeds were made of marble, too, emphasizing the notion of this city as a complete and cohesive organism sitting on top of its environment rather than embedded within it. With this research, Payne seems to have inverted the relationship that she had previously set up of object to architecture. Now, the object has taken on gigantic dimensions to capture edifices within it, whereas, earlier, the objects assumed the tactile qualities of the architecturally dispossessed.

The following presentation, by Panayotis Tournikiotis, professor of the history and theory of architecture at the National Technical University of Athens, discussed how the work of Constantinos Doxiadis translated from theory to practice and drew from antiquity to plan for the "global village" of the future. "Global Greece: C. A. Doxiadis and Planning in the Network Era" reached back to research that the planner and thinker had undertaken for his student thesis.

Initially, Doxiadis methodically analyzed the cities of ancient Greece, establishing how their structures might accommodate or even promote human movement in their midst. Tournikiotis argued that this research remained fundamental to Doxiadis's practice as he rose to prominence as an urban planner, aligning himself with CIAM, founding the journal *Ekistics,* and developing the principle of the "Ecumenopolis." Using the example of Aspra Spitia, planned by Doxiadis Associates to house the employees of an aluminum company, Tournikiotis stressed how the community recalls a village (albeit replicable at the global scale) in which the widths of thoroughfares, the sizes and treatment of thresholds, and the volume of structures prioritize the human scale.

Felicity Scott, associate professor of architecture and director of the program in Critical, Curatorial, and Conceptual Practices in Architecture at Columbia's GSAPP, wrapped up the semester's forum with the analysis "Habitat: The United Nations Conference on Human Settlements," a 1976 architectural competition and exhibition in Vancouver. Scott's investigation focused on a corresponding competition for an informal settlement on the outskirts of Manila. What at first seemed to be a straightforward tale of design and its struggles to adequately address issues of housing in the developing world, accompanied by images of proposed housing projects, soon ran into a wider-ranging set of questions that centered around the discipline's role in global politics.

Scott outlined a group of players: the residents of the informal settlement, the Marcos regime, the UN, and the competing architects. She presented the ways in which the competition was used by the Philippine government to acquire land for industrial development at the expense of residents, and by the UN, among other international organizations, as a sort of neocolonial exercise in the developing world. The talk ended by questioning the ways in which architects engage with global political and economic forces.

Ultimately, the forum introduced a broad range of research treating historical and political concerns, a culture of objects and transportability, the codification of urban design, and the political inversions that can derail the best architectural intentions. These informal evening lectures introduced a great diversity of inquiry, at a high level, to a fortunate audience.

—Violette de La Selle ('14), with reporting by A. J. Artemel ('14) on Felicity Scott's discussion.

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1. Alice Constance Austin, designer of a city of kitchenless houses proposed for Llano del Rio, California, showing a model to inhabitants, May 1, 1916. Photograph from, Dolores Hayden, *Seven American Utopias* (The MIT Press, 1976).

2. Dolores Hayden and Pier Vittorio Aureli with Yale students Maya Alexander ('15) (left) and Elisa Iturbe ('15) (right).

Gender and Housing

Gender and Housing: Pier Vittorio Aureli and Dolores Hayden, was organized by Equality in Design at Yale on April 11, 2014

This spring, Equality in Design, a group formed by students in fall 2013 to address issues of gender inequality in architecture, organized a discussion between professors Dolores Hayden and Pier Vittorio Aureli to examine issues related to housing. Professor Hayden is author of *Redesigning the American Dream* and *The Grand Domestic Revolution* and visiting Professor Pier Vittorio Aureli taught an Advanced Studio on housing asking his students to reimagine domesticity and consider how our society is produced and reproduced by domestic architecture in the spring semester. That the political realm of the home is also the space of agency for the architect was a position that clearly engaged many students, and the ensuing discussion addressed many of the difficult but important questions in the current discourse.

Pier Vittorio Aureli I think architecture allows us to understand how these habits and conventions that have always defined domesticity have become sedimented in the very construction of space. That isn't to say that architecture is responsible but, rather, that it allows us to retrace in these very habits and conventions the way we accept a certain manner in which space is scripted physically. In this kind of research we always have to consider the way the material evidence intersects with the policies and social engineering that constructed domesticity.

Dolores Hayden In my book, *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities*, I define the material feminists, activist women who sought to transform the spatial constraints of what was called "woman's sphere." Between 1860 and 1930, material feminists in the United States demanded changes in housing design and urban design. Their many architectural proposals redefined public and private spaces for housing and child care in ingenious ways.

PVA The fact that we see the home as the space of intimacy, of privacy, and the workplace as a social space, along with the kinds of clichés that follow this characterization, is problematic. I think architecture has a history that not only reinforces these properties but also proposes alternative models of living that imply a more conscious agency to organize domestic space.

DH The main way in which questions of privacy have been shifted has to do with the Internet and employees being on call 24/7 for their jobs. Suddenly, you're supposed to be carrying a cell phone and have it turned on and to respond when people need you, as opposed to having eight to ten hours of quiet, private time in your domestic space.

PVA Infrastructure such as the Internet plays a fundamental role in this kind of constant availability, but I still believe that's only one aspect of the picture. Another factor is the way we build reciprocity into the physical space of domesticity. … I wouldn't be an architect if I didn't believe how important space and its physical organization is, not in determining anything so literal like a form of life but in contributing to the construction of specific subjectivity.

DH I agree. It constrains behavior, it supports behavior, and it can be very significant.

PVA The history of gender is not merely one of exploitation. The concept of *domus* comes from *dominus* and the person who is responsible for that house. The role of women was actually empowered in many traditional instances of domestic space. When domestic work is reduced in the transformation of housing, it is also sometimes experienced by many women as an attack on their own empowerment within the house. And that is often the resistance. The history of housing is also made of this kind of ambivalence.

DH It's complicated to know what the ethnic patterns are, what the class patterns are, but the gender patterns seem to be pretty consistent across the United States: Women are still doing over eighty percent of the heavy lifting, and all the thoughts of the 1960s and 1970s that the way to solve this problem would be to have men pick up fifty percent of the necessary work—that was very, very optimistic. It hasn't happened yet.

—Shayari De Silva ('16)

Paul Brouard Retires

On April 21, the School of Architecture celebrated Paul Brouard on the occasion of his retirement after forty years as director of the Jim Vlock Building Project. The following are just a few of the numerous toasts and tributes written in his honor by his colleagues and his students.

Paul Brouard working on Building Project, a bandshell for Bridgeport, Connecticut, photographs by Bob Tucker, 1987.

Paul and Yale

Paul B. Brouard's long career at Yale began in 1957, when he enrolled in what was then a four-year program leading to a bachelors of architecture. He had already earned an undergraduate degree from St. Lawrence University, a liberal arts college in northern New York state. The department of architecture was in transition: Paul Schweikher's chairmanship ended in 1956, and structural engineer Henry A. Pfisterer served as acting chairman while the school sought a new head. Paul Rudolph was eventually selected, in 1958, by a search committee that included art historian Vincent Scully, who described Rudolph's early career as "meteoric."

Brouard was thus among the first group of Yale students to study under the legendary Rudolph. After graduating, Brouard worked as an architect for fifteen years, including a stint in the office of Brutalist architect John Johansen, at his practice in New Canaan. As Brouard told me in 2006, while I was writing *The Yale Building Project: The First 40 Years,* he worked on the design of a number of theaters for Johansen, including the Morris A. Mechanic Theater in Baltimore, a currently threatened classic of Brutalism in America, and an experimental theater for Vassar College that was never built. Brouard's early association with two important Brutalist architects, Rudolph and Johansen, suggests that recent historians who have emphasized the humanistic side of the movement—such as Timothy M. Rohan in *The Architecture of Paul Rudolph*—are correct in their approach. But, as Brouard explained to me, Rudolph was not interested in having students learn about construction as part of the academic program at Yale, even if a number of them had summer jobs hammering away at the striated concrete surfaces of Rudolph's Art & Architecture building, once the formwork was removed.

After graduating Brouard took the lead in several design-build initiatives, such as overseeing the construction of jamboree camps for the Girl Scouts of the USA. These efforts place him among the leaders of Yale's early design-build culture alongside of later graduates—David Sellers, William Rienecke, and Peter Gluck (all '65), among them. While Brouard was practicing, Charles W. Moore succeeded Rudolph as department chairman in 1965, ushering in a radically new approach to teaching that included hands-on involvement of students in real-world problems. As Kent Bloomer has noted, Moore was keen on having students get out of the drafting room to become physically engaged in architecture. "Building as a verb" was Moore and Bloomer's pithy summary of their new ethos. The first building project took shape in 1967, when members of the class of 1970 traveled to New Zion, Kentucky, an isolated and impoverished Appalachian hamlet, to build a wood-sheathed community center strongly evocative of Moore's own shed-style designs of that era. In so doing, they inaugurated what would become the oldest continuous design-build program in American architectural education, the "First-Year Building Project," known since 2006 as the "Jim Vlock First-Year Building Project," one of the most important achievements of Yale's School of Architecture. In the late 1960s and early 1970s, students would return to Appalachia three more times to build another community center, a recreation project on a lake, and a health clinic for sufferers of black lung disease.

In 1971, Brouard contacted Bloomer and expressed interest in becoming involved in the construction phase of the program. As he told me, "I loved working outdoors, and I loved to build." The first building project he participated in was a beachfront sun-and-wind shelter in Guilford, about fifteen miles east of New Haven. It was a great fit for both Brouard and Yale. The program needed his practical know-how, the twin strengths of his background in construction and a high-profile design practice. During the early years of his teaching, Brouard brought greater organization to the construction phase of the program, while always understanding it as an educational endeavor for students at one of the country's premier design schools. This commitment is one of the most sustained careers in architectural education. Throughout all the changes in the program—its transfer of focus from Appalachia to New Haven, the shift in building type from community center to individual house, the growth of initiatives in sustainability and green building—Brouard's steadfast leadership has been essential to the unparalleled success of the program. His remarkable combination of building knowledge, educational skills, good humor, and spirit of fun has been a guiding light for Yale students for over forty years.

—Richard W. Hayes ('86)
Hayes is the author of The Yale Building Project: The First 40 Years.

Paul:

caretaker of youthful architectural vision,
entertainer of technical fantasy,
realist;

fixer of failed ambitions,
speaker of hard cold truths,
benevolent guide to the arrogantly uninformed,
antagonist to solipsistic excess,
detractor of all things ideological,
champion of the anti-heroic,
grumpy doubter,
enthusiastic advocate;

architect, emergency medical technician, carpenter,
"hammerswinger,"
lunch advisor,
lunch companion,
electrician, plumber, mechanical consultant,
ditch digger, concrete pourer and finisher, truck driver, material handler,
tradesman,
jack of all trades,
master of all trades,
trader in concepts as well as techniques,
craftsman intolerant of craftiness,
expert wary of experts,
artisan of the everyday;

intrepid researcher of the possible,
innovator amidst crushing constraint,
building contractor with a soft spot for architects,
architect with a suspicion of architects,
caution at the drawing board; conscience in the studio,
motivator at the site; inspiration in the field,
thoughtful maker,
productive thinker;

social visionary, social activist (occasional scold);

protector of clients who stands up to clients,
expediter of permits and permissions,
ambassador of the hopeful,
mediator of town and gown,
regional diplomat;

protector of students; critic of students,
design critic in my first year,
colleague in my last ten
(my teacher for 28 years)
skeptic of things honorific and celebratory,
I honor and celebrate you. And I thank you.

—Alan Organschi ('88)
Organschi is principal of New Haven-based Gray Organschi Architecture and studio director of the Jim Vlock Building Project.

Take It On and Get It Done

The early morning hour, anathema to the grad student, is heavy with humid stickiness and dust, coating everyone in a sweaty grit as a young crew receives the day's direction from the man in charge of transforming this unskilled group into a (sort of) well-oiled machine—a man who is steeled for whatever may happen that day. Never been on a construction site before? Well, foundations need to be poured, so take the driver's seat and get the excavator moving. Hand-eye coordination is not your strength? Even so, drywall is arriving tomorrow, so wield your hammer, make contact with nails as best you can, and get these walls framed. Scared of heights? All right, it's roof-rafter day, so walk carefully over the ceiling joists, stick to the perimeter, and don't look down. Hmmm, high-heeled tennis shoes are in fashion now? That's a new one. Work over here on this solid, flat surface, and please wear something else next time. Each year a new crew arrives, and Paul Brouard takes it on, showing an unwarranted confidence in the construction capabilities of a very green group of students.

The Yale Building Project has made the abstract concrete. Real-life clients with real-life concerns; decision-making within the context of group dynamics and politics; balancing a zealousness for socially responsible work with a sensitivity to doing it with respect; getting out of the clouds of archi-speak and into the dirt of building mechanics. Full engagement.

After grad school, my first exposure to the working practice of architecture was not so direct. Thinking was clearly disconnected from making. Architecture was separated from construction, which I expected, knowing that efficient unloading of two-by-fours and hammering nails in as few strikes as possible were not the skills I expected to learn at Yale. The world of architecture practice itself was fragmented. Design architects focused on ideas and took them only so far; then, executive architects took over the responsibility (and liability) for construction documentation, with very little say on why it was designed that way. It was a world in which one had to choose (or was forced into) either a design or technical track, with limited opportunity to cross the line.

I had heard many dismiss the idea of the "master builder" as a nostalgic ideal—but the death of the fully formed architect as designer and technician, thinker, and maker? Something was out of sync.

The experience of the Yale Building Project came rushing back: fully engage. Make the abstract concrete. Be a problem solver, not a finger-pointer. Follow through and take responsibility for how something looks *and* how it is executed. Understand architecture in its totality, as a *built* form. Cultivate a mental toughness by challenging every design idea that looks great on the computer with a deep knowledge of constructability.

Full engagement for me, nineteen years later, means architect-led design-build—design and construction, not just documenting design and construction in drawing form but defending high design by making it work in the field as construction manager. As a principal at GLUCK+, a firm founded by Peter Gluck, one of the catalysts for the Yale Building Project in the 1960s, I know that the concept of the master builder is not a nostalgic ideal and that one can expand the definition of architecture and fully engage with design and construction—and it doesn't mean literally having to drive the excavator or pick up a hammer. It just means having the mind-set to do it.

The Brouard mentality: take it on and get it done. Thanks, Paul.

—Stacie Wong, Jennifer Leone, and Catherine Truman (all '97)
Wong is a partner at New York-based GLUCK+*. Leone is prinicipal of Leone Design Studio. Truman is principal of Catherine Truman Architects.*

Master Builders

Paul and I started working together when he was a student and I was a teacher. Seems like it was back in the nineteenth century. His approach then and through all the years of his wonderful successes—from Kentucky and West Virginia to New Haven, from community and health centers to day camps and homes—was a can-do attitude. Always positive no matter how daunting the problems, he was deeply engaged in everything he built. He taught by doing and answered questions by demonstrating what to do and how to do it and he allowed students to discover through bruised thumbs and hernias to match his own. Paul's down-to earth "Clint Eastwood attitude" (not *Dirty Harry* but *Million Dollar Baby*) helped students become master builders.

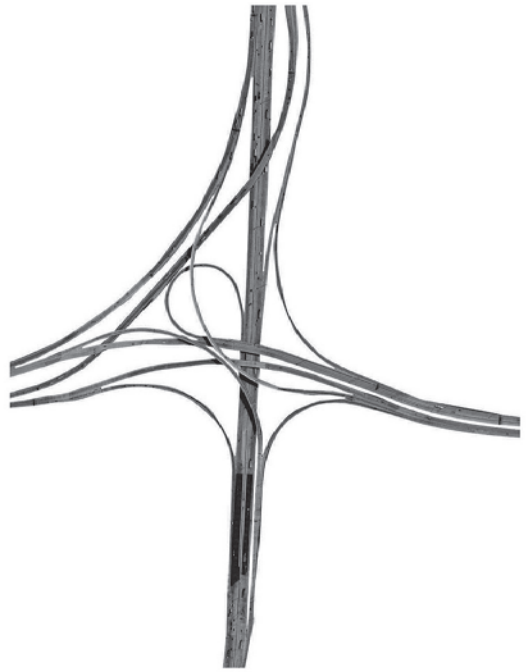
—Herbert Newman ('59)
Newman is principal of New Haven-based Newman Architects.

Learning by Doing

Nobody would ever call Paul wordy. Paul can't stomach pretense. He has always been suspect of those who speak too articulately, too confidently. And this mistrust has continually been a source of comfort to his students. During the crush of first year, when students are simply trying to keep their heads above water, Paul has been a lifeline to that humanity which architecture, and the Building Project, is supposed to serve. Within the heady realms of Rudolph Hall, and into the swelter of the ground in summer, Paul has been ardent in his belief that there is an education to be had in doing. It seems he has always known when to speak, intervene, assist; and when to remain quiet, stay back, and allow learning to come from within. His restraint is borne not from reticence, but from an intelligence that fosters his students' discovery and growth and compassion.

For forty-two years, with over 2,000 students, through six deans, alongside some 150 critics and twenty some clients, Paul has been steadfast in his commitment to the pedagogy of design-build. He embodies it.

—Adam Hopfner ('99)
Hopfner is project director of the Jim Vlock Building Project and founder of Hopfner Studio, a design-build practice based in New Haven.



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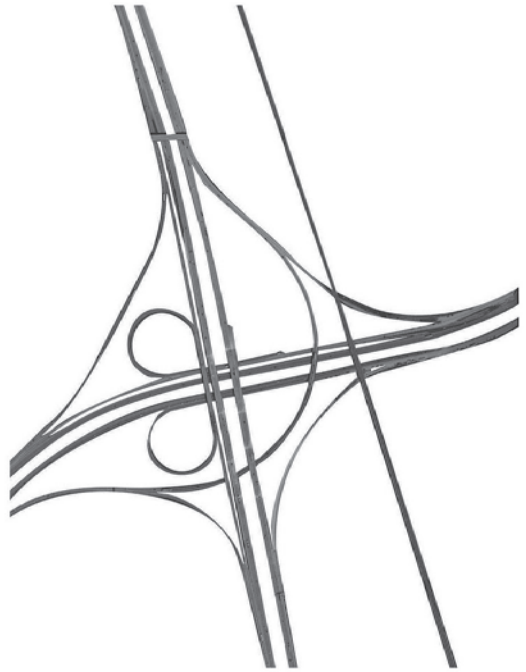

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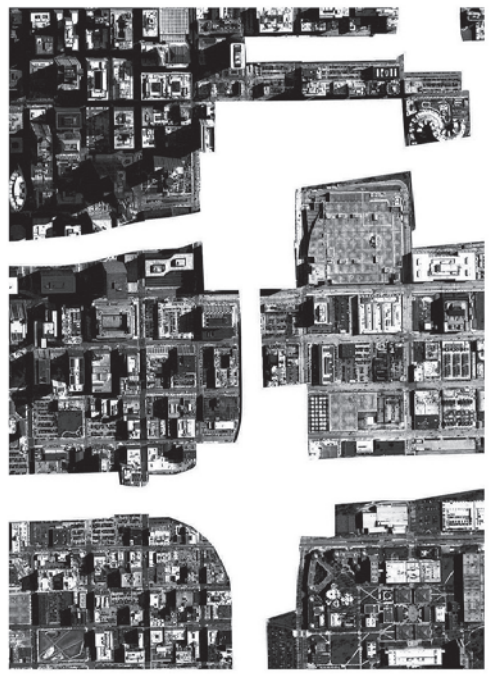

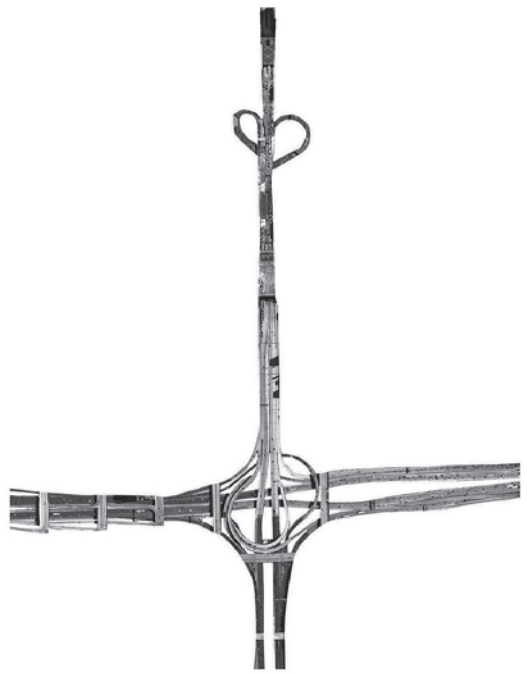

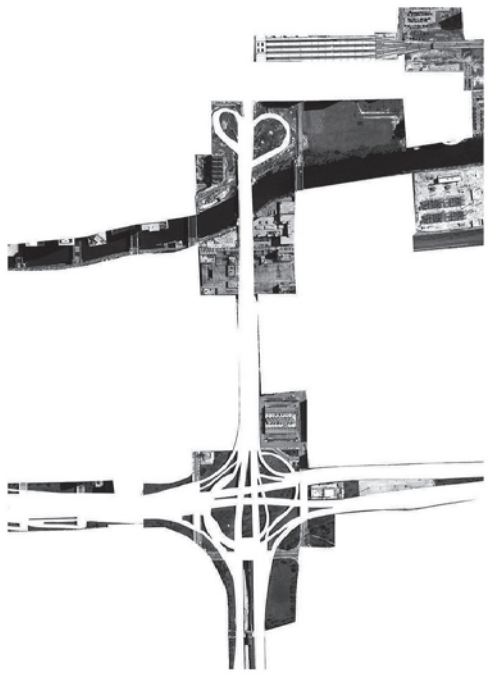

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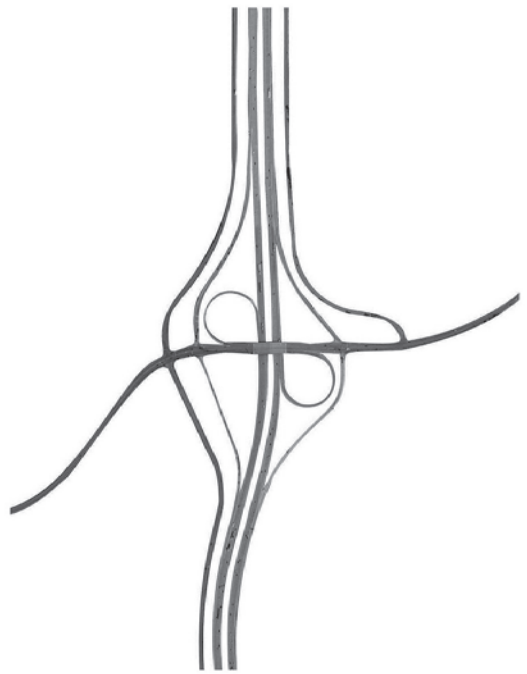

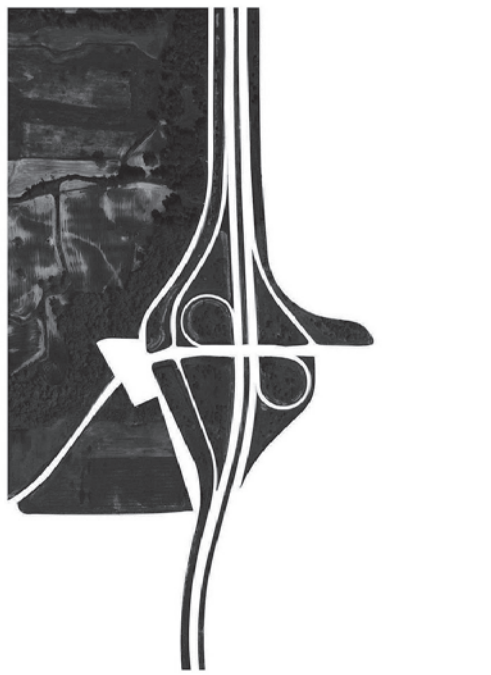

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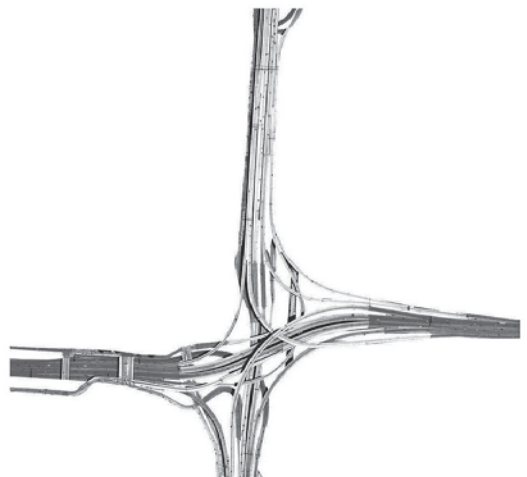

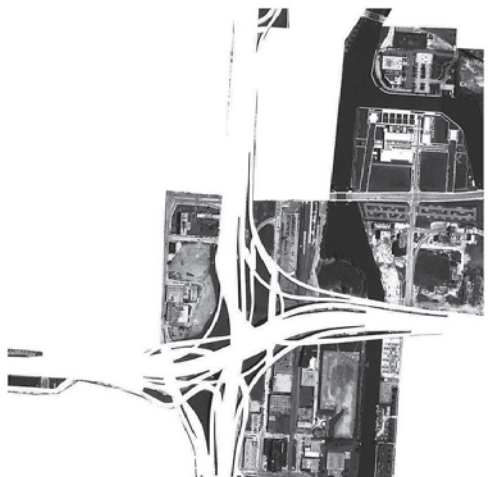

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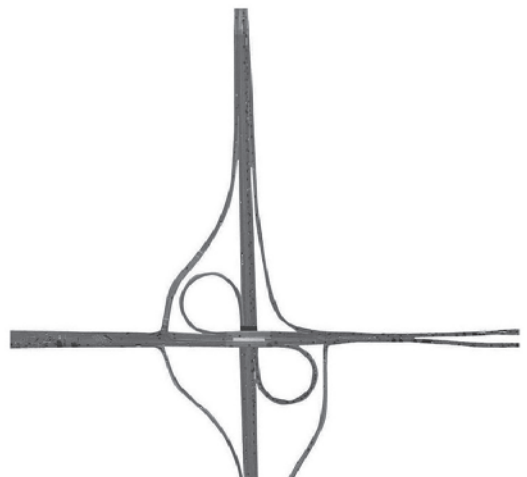

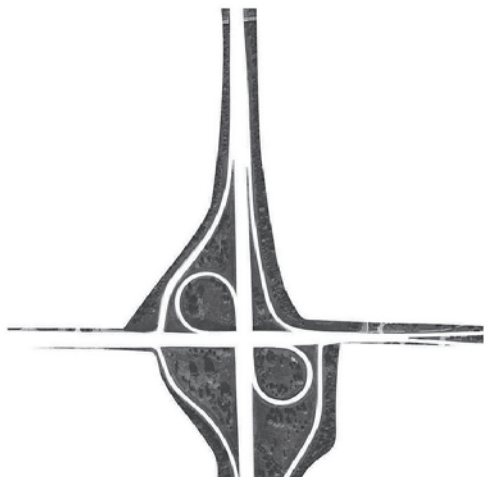

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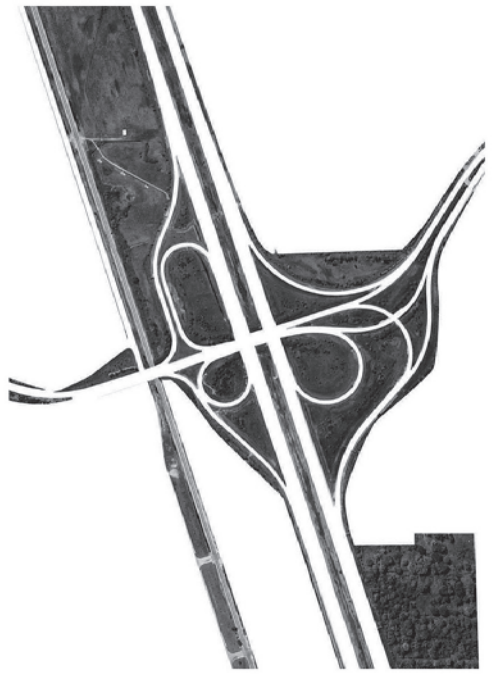

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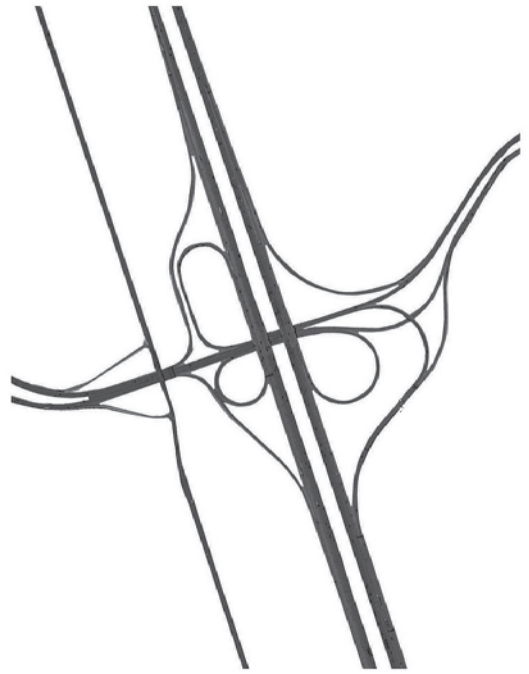

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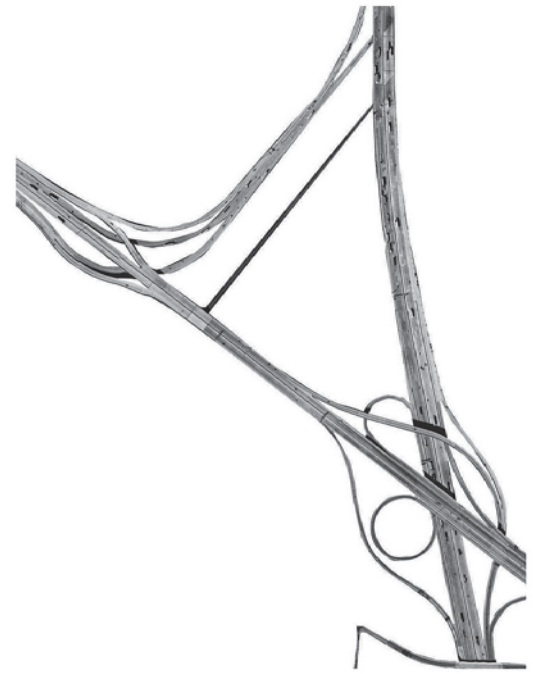

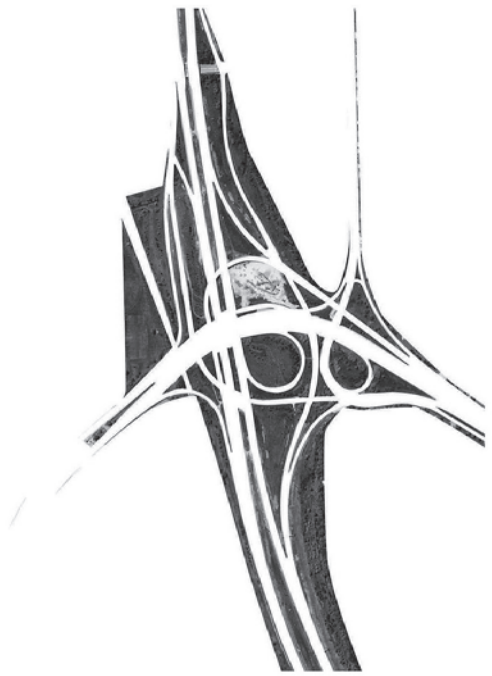

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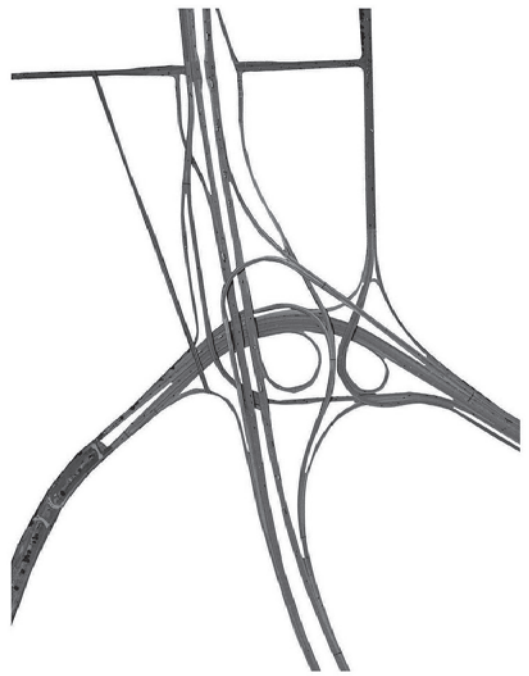

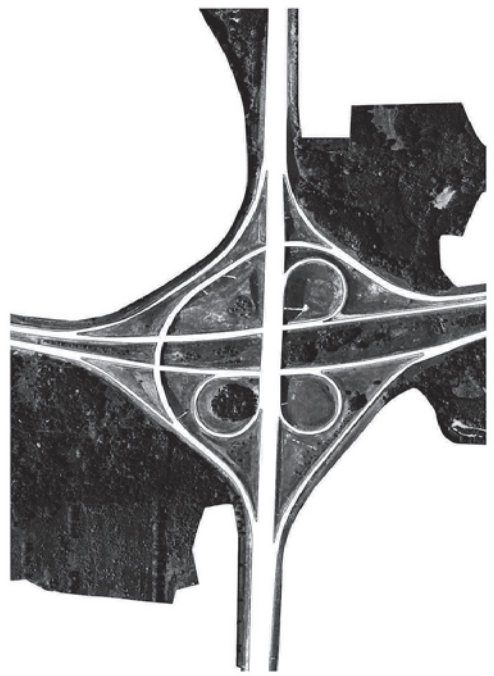

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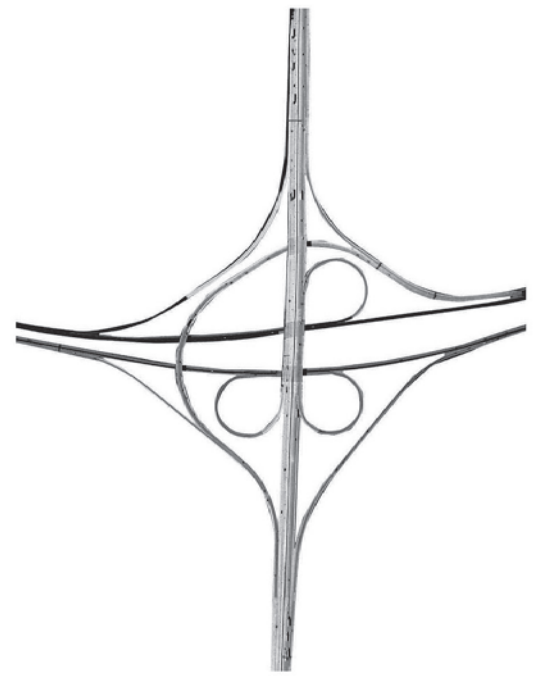

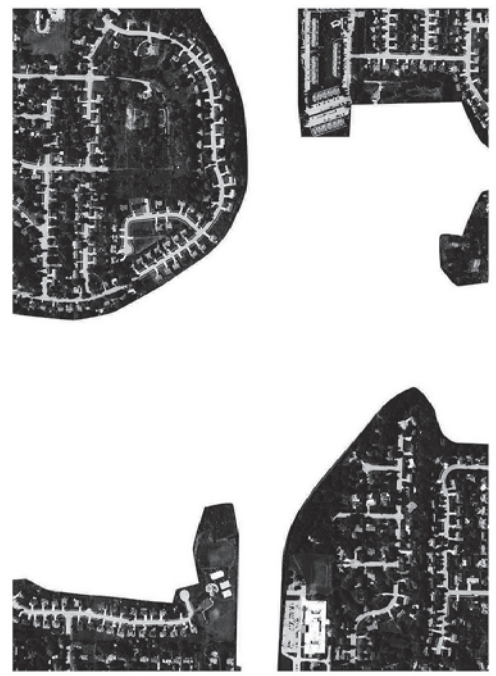

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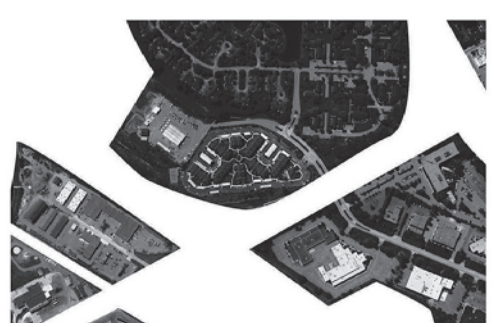

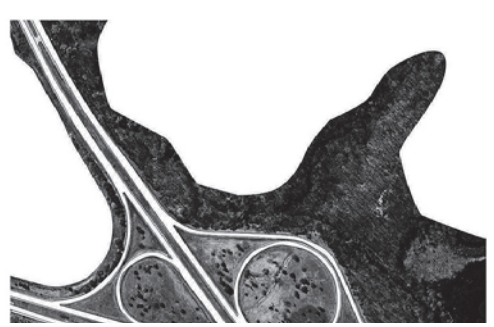

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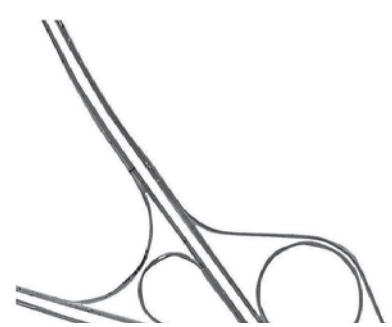
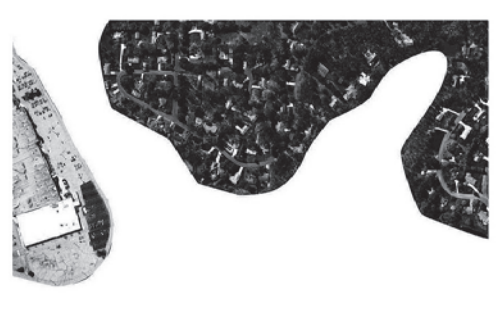
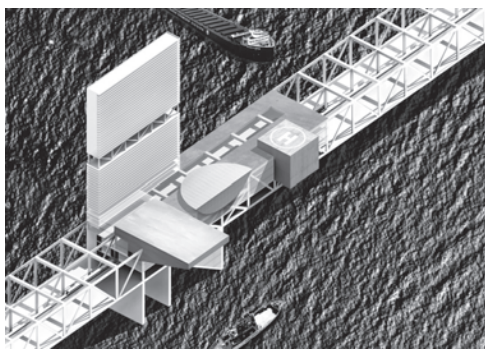




Infra Eco Logi Urbanism, RVTR at Yale

Partial inventory of morphologies of orphaned lands and road surface configurations at highway interchanges. From *Infra Eco Logi Urbanism*, RVTR.

Fall Events



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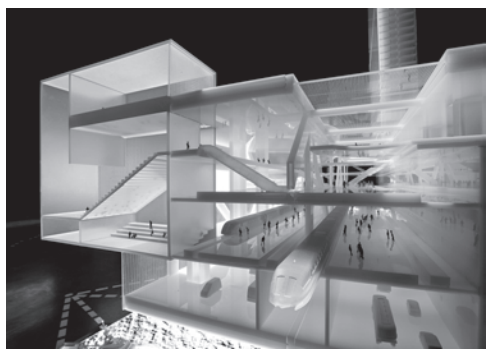

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Infra Eco Logi Urbanism

The exhibition *Infra Eco Logi Urbanism* will be on display at Yale from August 26 to November 20, 2014. It features the work of Geoffrey Thün, Kathy Velikov, and Colin Ripley of RVTR, based in both Toronto and Ann Arbor.

Infra Eco Logi Urbanism is a traveling exhibition of a multiyear design research project, undertaken and assembled by experimental design practice RVTR (Geoffrey Thün, Kathy Velikov, and Colin Ripley), that posits a manifesto for architecture at the regional scale. A projected future development for the Great Lakes region is the subject within which speculative approaches to urban analysis and design intervention aim to reconceptualize future urban ecologies, cross-border governance, politics, infrastructure, and public architecture.

1. *Infra Eco Logi Urbanism,* The Crossing: The Centre for Great Lakes Governance Council where issues of freshwater and resources are debated, RVTR.

2. *Infra Eco Logi Urbanism,* Sectional model at the Detroit-Windsor Crossing, RVTR.

The fact that ninety percent of the world's population will be living in cities by 2050 is, by now, a familiar prognosis on future urbanization. While some global cities prepare for unprecedented hyperdensity, in many parts of the world, especially in North America, this massive urban migration is producing continuous low-density urban development *between* city centers, multicenter agglomerations of built form also known as "megaregions." These dynamic conurbations, spatial products of the ad hoc emergent forces of mobile capital, infrastructure, logistics, and environmental management, confound traditional questions of urban boundaries, identities, politics, and natural and man-made systems. The emergence of megaregions also signals a moment when reconsideration of the material and cultural common ground enables new conceptions of resources, publics, distribution, and rights. Within these contexts, the role and agency of design, and specifically architecture, can be rethought.

The working methodology put forth in the exhibition moves through multiple scales of consideration in both analysis and design, combining contemporary perspectives of ecology, geo-design, assemblage, and actor-network theory as well as utopian paradigms. The work has been developed through three parallel streams of research: 1) an intensive regional analysis undertaken within a methodological framework of *system* (shed cartographies of interdependent systems), *structure* (typological physical forms and artifacts), and *code* (operational practices and rule sets); 2) an assembly of historic disciplinary influences within the topics of fragmentary utopias, urban megaforms, and large-scale urban interiors; 3) a speculative design proposal for the megaregion developed through systematic infrastructural interventions and detailed architectural designs. The content consists of texts, writing, regional cartographies, network analyses, historical research, photographs, and design proposals for urban infrastructure.

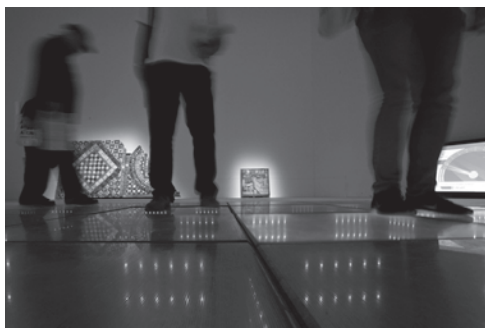
A proposition embedded in the work is that, by investigating what has been considered "back of house" activities of cities and their support systems—infrastructures, logistics, and ecologies—urban design could take a more active role in transforming the future of cities, settlement patterns, and metropolitan life. The project investigates current and emerging urban systems and proposes to leverage the significant renewable-energy potential in the Great Lakes megaregion toward resilient urban and public ends. In this détournement, a new infrastructural network is knit within current systems to provide opportunities for region-wide accessible transit, environmental rehabilitation, and urban architectures that house new public megaregional institutions. Networked with other urban systems, each interchange is rendered as a distinct urban artifact, maintaining an architectural legibility and iconic position within the megaregion. Prototypical interchanges are developed typologically, and three are explored through detailed design proposals at sites in Chicago, Detroit-Windsor, and Toronto. As a speculative design scenario, this project advocates the potential for architecture to engage not only in urban processes but to imagine alternative futures of urban form by structuring spaces for negotiation and public action at the scale of the megaregion.

Infra Eco Logi Urbanism is supported by the Social Science and Humanities Research Council of Canada (SSHRC), Taubman College of Architecture + Urban Planning, the University of Michigan Office of Research, Rackham Graduate School at the University of Michigan, and The MI Group. The exhibit opened in Montreal in February 2013 and then moved to Toronto in winter 2014. It will travel to Ann Arbor, Michigan, in winter 2015.

Yale in Venice

1. Keller Easterling installation of *Floor*, Venice Biennale, 2014.

2. Louise Braverman ('77), installation of *Centro de Artes Nadir Afonso, in Time Space Existence*, Palazzo Bembo, Venice Biennale, 2014.



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City of memory, city of desire, city of the dead. For Italo Calvino, Venice was every city and no city, a place beyond description. But I think Paul Rudolph managed to sum it up just fine in the first issue of *Perspecta,* when he called Venice "the most beautiful city in the world." During the opening of this year's Venice Biennale, the most beautiful city was brimming with the most beautiful and talented people. Did you go? Chances are you did because it seemed like simply everyone was there. One couldn't take more than ten steps without running into Yale alumni or faculty members, past or present: There's Mario Carpo and Stanislaus von Moos in front of the U.S. Pavilion! There's Michelle Addington strolling through the Giardini! Hey, it's Daniel Sherer taking a *vaporetto* across the Grand Canal! But, of course, Yalies weren't found just among the crowds of the Giardini—many alumni and affiliates were exhibiting work at the exposition, which is equal parts state of the union and prom for the architecture profession.

The 14th International Architecture Exhibition of the Venice Biennale—dubbed "Fundamentals" by its curator, Rem Koolhaas—was divided into three sections: the sixty-six international pavilions were asked to address the theme "Absorbing Modernity: 1914–2014"; the enormous Arsenale was the setting for "Monditalia," a series of scaffold-like theatrical set pieces for exhibitions and performances celebrating Italian history and culture; and the Central Pavilion focused on the historical development of sixteen architectural "elements": ceiling, wall, floor, balcony, and so on. Yale's presence was felt everywhere.

In the Central Pavilion, professor Keller Easterling, working with student researchers Craig Rosman ('14), Swarnabh Ghosh ('14), A. J. Artemel ('14), Jack Morley ('13), Amy Mielke ('13), and Henry Ng (BA '07, MArch '13), created an installation that examined the evolving cultural and spatial significance of the floor. The exhibition, where visitors truly had to watch their step, presented designs of the past, present, and future, from the *tatami* of the traditional Japanese teahouse to a dance floor that transforms your waltz into watts.

Easterling also spoke at the U.S. Pavilion, "OfficeUS," which examined the nature and influence of the American corporate architecture practice. The Storefront for Art & Architecture's installation created a semifunctioning design office tasked with investigating and reimagining projects built by American offices working overseas. During a panel discussion organized by the curators, Easterling described the enormous potential for humor in the sincere and surprisingly rigorous examination of American corporate practice, calling the installation a latent punch line.

Many other Yale alumni had work in the "OfficeUS" repository, a library of more than one thousand projects that circled the inside of the Palladian pavilion, designed by William Adams Delano (BA 1895, Hon. 1907) and Chester Holmes Aldrich. The list includes Henry Killam Murphy (BA 1899, BFA 1913); Robert A. M. Stern ('65); Buzz Yudell (BA '69, MArch '73), of Moore Ruble Yudell; Andres Duany ('74) and Elizabeth Plater-Zyberk ('74); Lise Anne Couture ('86), of Asymptote; and prominent former faculty members such as Edward Durell Stone, Louis Kahn, Paul Rudolph, Charles Moore, Robert Venturi; and recent faculty such as Fred Koetter, and Dan Wood, of Work AC. (I'm sure there were others; apologies if I omitted your name.)

In the Russian Pavilion, an incredibly fun (and educational!) tongue-in-cheek trade show of Russian architectural history, dubbed "Fair Enough," third-year PhD candidate Anya Bokov led demonstrations in "VKhUTEMAS Training," a postrevolutionary educational system designed "to train highly qualified artist-practitioners for modern industry." She also published an essay on the subject of this literally revolutionary institution of the 1920s in the accompanying exhibition catalog.

In the Arsenale, Britt Eversole (MArch '04, MED '07) was on the Princeton curatorial team that created *Radical Pedagogies* (awarded special mention), a popular and informative installation exploring the influence of Italian architects and scholars who were rethinking architectural education in the decades after World War II. The sixty-four case studies represented various ideologies that all reflect, as Eversole says, an "interest in understanding the relationship between buildings, urbanism, community, citizenry, and what it means to teach students to design in a sensitive way for a people who have an incredible history and … a new and open future."

Outside the Giardini and Arsenale, Louise Braverman ('77), who also had work in the "OfficeUS" repository, presented her recently completed museum, Centro de Artes Nadir Afonso, as part of the exhibition *Time Space Existence*, one of many "collateral" events taking place during the biennale. Braverman's installation filled a small room in the Palazzo Bembo, a grand building on the Grand Canal, with wall-size images of the museum and its materials along with a historical timeline of Modernism and an audio recording of *New Republic* architecture critic Sarah Williams Goldhagen discussing the development and definition of the term.

A short *vaporetto* ride away from the Giardini, Peter Eisenman's firm, Eisenman Architects, together with Aytac Architects presented their vision for the Yenikapi Transfer Point and Archaeological Park, in Istanbul. The exhibition of process drawings, renderings, and models of the ongoing transit center-museum-archaeological site was displayed in the former church of Santa Maria della Presentazione (better known as Le Zitelle), a building generally attributed to Palladio. In a manner similar to the *Palladio Virtuel* exhibition at Yale (fall 2012), Eisenman's team, including Matt Roman ('09), transformed the exhibition space with a gallery-scale version of the Yenikapi project's four-square scheme and a map of its plan on the gallery floor.

The 2014 Venice Biennale has been criticized for its historicist representation of the discipline as well as its glib portrayal of Modernism. It certainly does seem like everything new is old again—or is it the other way around?—but it can't be denied that many of the lessons of the biennale are critical to the future of the profession. These ideas aren't just persisting—they're thriving. As Philip Johnson said in a lecture at Yale in 1959, "We cannot not know history." Or, as they say in Venice (or should anyway), "*in prosecco praecognita*." In the gardens of the invisible city, participants and visitors alike were able to toast the remembrance of things we once knew and must remember for the future.

—Jimmy Stamp (MED '11)
Stamp is an architectural journalist and editor of the Smithsonian Museum's Design Blog.

Architects Turned Sculptors

1. Kent Bloomer working on a tile in his studio.
2. Charles Bergen working on a metal sculpture, 2012.
3. Dee Briggs, Rings, 2014.
4. Tim Prentice, 11 Times Square, New York, 2010.
5. Charles O. Perry, Solstice, 1985.

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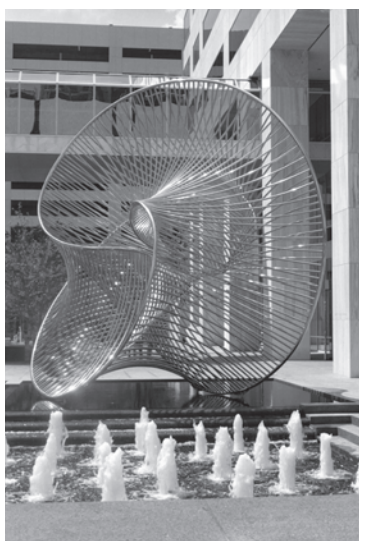

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After ten years as a partner in Prentice & Chan Architects, Tim Prentice (BA ’53, MArch ’60) gathered together his colleagues one day in 1975 and announced, “I am leaving architecture. I am going to be a sculptor.” They were shocked and envious. “How dare you live out your fantasies,” he recalls them saying. For all the architects who believe the profession is humankind’s most desirable, there are always some who yearn to channel their interests into artistic expression and plastic material in a more direct way than the typical office job allows. “You have so much more control over the end product,” architect-turned-sculptor Charles Bergen (BA ’85, MArch ’90) admits.

The master’s in architecture is a considerable investment of both time and money, and architecture seems like a safer career path. Foregoing the CAD station for the hammer, anvil, and chisel is a dream for some, a reality for only a few. “How was I going to become an artist and make a living?” Bergen once wondered. Yet the School of Architecture has had a substantial share of graduates become successful, eminent, and influential sculptors. The school’s program is rooted in architecture’s identity as an art, a philosophy that has persisted through generational and ideological changes. Yale’s architect-sculptors have thrived under the consistent emphasis on hands-on work and an intellectual openness that allows sometimes unfashionable approaches to persist, as long as they are rigorous and relevant.

While other collegiate architecture programs were starting in schools of engineering, Yale’s curriculum began in 1916 within its School of Art, which had opened in 1869 as the nation’s first. Later, Josef Albers famously brought the influence of his study and teaching at the Bauhaus to Yale, where he remained on the faculty through the 1970s. Kent Bloomer (BFA ’59, MFA ’61) recalls that, under Bauhaus guidelines, “the arts of drama, painting, graphics, and sculpture could all have the same foundation course,” a unity that was memorably described in an iconic circular diagram. “To go toward [one of those] was merely a specialization you made later in your education,” Bloomer adds. “It was only later on that architecture became professionalized…a self-defining entity with a history that was independent of the other arts.”

Charles O. Perry (BArch ’58) seemed to embody that threshold. The Montana native and Korean War veteran studied under Albers, following his directive to explore forms and materials independent of representation to develop design capacities in different media. After graduating, Perry went on to work for SOM in San Francisco, where, by contrast, the sense of professional uniqueness was solidifying. Yet the lure of unfettered material exploration led him to continuing sculptural work and a one-man show in 1964. That same year, Perry won the Rome Prize. Although his field was identified as architecture, the period of study abroad led him to a more focused sculptural practice. In a decades-long successful career, he produced abstract work influenced by Naum Gabo and Umberto Boccioni, and designed furniture, jewelry, and puzzles in line with the principles of the Bauhaus.

During the 1950s, Albers brought in Bloomer and Erwin Hauer as student and teacher, respectively. Both are sculptors who have taught architects and conducted artistic practices that intersect fruitfully with the practice of architecture. Hauer came to Yale in 1957, after achieving professional recognition through the design and production of geometric architectural screens. This work, first executed in Germany, earned him a Fulbright for travel to the United States, where his work achieved notable popularity in the 1950s and 1960s and is enjoying a resurgence today. Hauer’s teaching in sculpture often engaged entirely different issues: “Working from the nude. Working from observation. I chose models that were not normally looked at. Using bones as models. Modeling them in space-time-conscious ways,” he explains. Hauer continued to teach three-dimensional design, but in his sculpture courses he did not fit into a unifying curricular model. In the early days, “most of the abstract critics were against it,” Hauer says. Yet he taught through 1990, drawing a constant stream of architects through both required and elective courses.

Bloomer studied architecture and physics at MIT but transferred to Yale, in 1957, to complete his bachelor’s degree and then finish his master’s, in 1961. He returned to teach at Yale in 1966. “I had a Bauhaus education,” he says. Yet his explorations into the phenomenology of sculpture and Husserl’s *Origins of Geometry* developed into a flowering of figuration and ornament under Charles Moore, with whom he coauthored *Body, Memory, and Architecture* in 1977, and Thomas Beeby, with whom he collaborated on the Harold Washington Library, in Chicago. Neither Hauer nor Bloomer has necessarily sought architectural converts, and they foment more debates on sculpture than they resolve. Yet their commitment to the rigorous exploration of form has influenced every graduate from the School of Architecture who has gone into sculpture.

Tom Luckey (BA ’62, MArch ’66), one of the earliest architects-turned-sculptors, regularly recounted Paul Rudolph’s assessment of him as a student: “This character is not going to be an architect.” He began with furniture that explored unexpected geometries that folded or expanded. For one client with children, he built a staircase that turned, via lever action, into a slide. He built carousels, including one that transferred riders from one seat to another. He later became known for his Luckey Climbers and built for children’s museums. In these, small foam platforms at various positions are supported by masts and enclosed by metal mesh to make ascending climbable networks for children. “You don’t have to explain climbing to children,” he once commented. Although he suffered paralysis below the shoulders from a fall in 2005, Luckey continued to work until his death, in 2012. His son, Spencer (MArch ’04), has taken over the company.

Ray Kaskey (MED ’69), a Pittsburgh native, was a more direct disciple of Bloomer’s, first studying with him at Carnegie Tech. “I had him for basic design,” Kaskey recalls of the well-traveled course. Kaskey followed Bloomer to Yale in 1967, entering the new MED program. “I was able to take a lot of sculpture courses, especially with Erwin Hauer,” explains Kaskey, who gained exposure to “the very rigorous kind of mathematical ideas about surfaces to the Viennese-influenced figural sculpture.” He adds, “Erwin was proficient in figure and animal sculpture.”

Kaskey’s career in sculpture began slowly. He taught in the architecture schools at the University of Maryland and Kansas State when commissions were sparse. His fortunes changed when he won the competition to design Portlandia for the façade of Michael Graves’s Portland City Hall. He subsequently collaborated with Bloomer and Tom Beeby on the Harold Washington Library. An exhibition at the National Building Museum featured Kaskey’s work, which encompassed several iconic projects, including allegorical sculptures for the World War II Memorial on the Mall in Washington, D.C.

Others have followed a similar model of slow transition to sculpture. Charles Bergen (’90) was creating sculpture before he graduating with two degrees from Yale. After grad school, he worked briefly for Kaskey, writing a definitive profile of the artist for *American Arts Quarterly,* in 1995. Bergen’s primary career trajectory played out first in architecture firms, including Cooper Robertson and Hartman Cox, with sculpture as an after-hours pursuit. Only recently has he made the transition to focusing solely on sculpture. “It’s hard to do both at the same time,” he notes. His specialty in wildlife subjects—bears, owls, and fish—has proven popular for private commissions in a variety of media and sizes.

The 1980s saw both connections and divisions between sculptors and architects. “The whole notion of artists and architects was just in the air,” explains Alice Aycock, who was invited to teach an advanced studio at the School of Architecture in 1988 and was its director of graduate studies in 1991–92. “There was this idea that artists and architects could just hold hands and walk happily into the sunset, which of course did not occur,” she observes.

Maya Lin’s (BA ’81, MArch ’86, Hon. ’87) conspicuous transformation to international designer took place at the end of her undergraduate career and before her return to graduate school. “Maya was in my three-dimensional design course the year before she entered the competition,” Hauer says. “I believe I didn’t do too badly by her.” She, too, was a lifelong artist in the architecture programs. “I’ve been making art since I can remember,” she says in a video interview. “As a child, my after-school hours were spent in [my father’s] ceramics studio.” She sees her current practice as “a tripod. The art, the architecture, and the memorials inform each other. I love bridging the three different disciplines.”

Meanwhile, Craig Copeland (’89) has stayed in architectural practice, working for Duda-Paine and Pelli Clarke Pelli. Yet he has been a Fulbright Fellow and a visiting artist at the American Academy in Rome to pursue sculpture. In 2006, he started working primarily in marble, and, recently, he was in Siena carving into fresh blocks of travertine. The work, Copeland has written, is “grounded in carefully sustained observations and distillation studies of nature’s formal essence.” Both Copeland’s sentiments and his Brancusi-like forms could find relevance in almost any decade of the past century. His approach is grounded in refined technique and intellectual rigor that embrace timelessness over trends.

Others fit into the architect-turned-sculptor paradigm more loosely. Although Paul Rosenblatt is a principal of Springboard, which is primarily an architectural practice, he has produced enough Rauschenberg–influenced assemblage sculpture to warrant a solo exhibition at West Virginia University some years ago. Then again, Rosenblatt majored in both art and architecture at Yale (BA ’81) before continuing to study at the school for his master’s in architecture (’84).

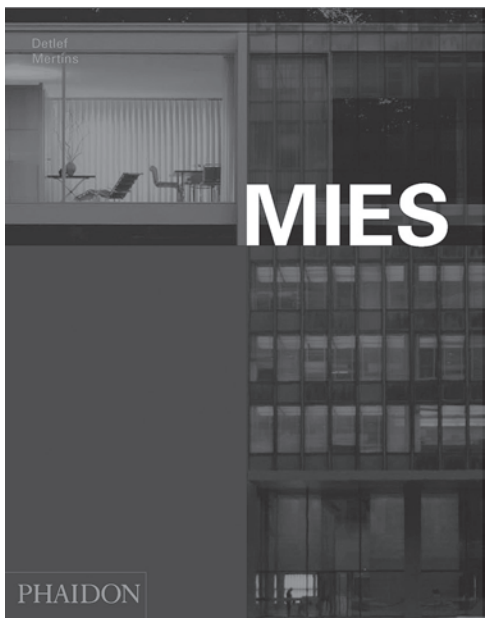
Dee Briggs’s (MArch ’02) rapid transformation took place following an epiphany she had while taking one of Bloomer’s courses. An investigation into chirality, the capacity of certain shapes to be left- or right-handed, led to a series of formal explorations that still drive much of her work today. Her ring pieces link together short spirals of metal with an appearance of randomness that is actually guided by rigorous order. Even though she had a studio with Frank Gehry and crits with Richard Serra in 2002, she attributes Bloomer with primary influence on her work in both rings and plate steel. The advantage of learning sculpture in an architecture school, Briggs says, is that “you understand how large structures are made and the kind of people you need to collaborate with to make them happen.” Briggs taught architecture for several years at Carnegie Mellon, but these days she concentrates on her sculptural practice, a three-person studio with a growing roster of public and private commissions. “I don’t think I would have the love affair with sculpture if I had gone to Princeton or some other grad school that didn’t have the emphasis on working with your hands,” she concludes.

The school has produced a steady stream of architects-turned-sculptors since the Albers days. They emerge not from ideological swings or modish changes but from a perpetual intensity of intellectual and artistic exploration that seeks out vivid frontiers where compelling ideas are in flux, whether perpetually or for the first time. The digital era is presenting a series of new debates in sculpture and architecture as practitioners consider the borders between various media and what happens as more formal exploration takes place without the fundamental constraints of gravity. These debates refresh the parameters of sculpture and architecture, even as o with richness. The threshold between architecture and sculpture has had notable shifts through the years, but the consistently dynamic investigation by architects producing sculpture at the corner of York and Chapel streets has been a constant.

—Charles Rosenblum

Rosenblum (BA ’87) is an assistant professor of architectural history at Carnegie Mellon University School of Architecture, in Pittsburgh and is a contributor to numerous architectural publications.

Book Reviews



Mies

By Detlef Mertins
Phaidon Press, 2014, 560 pp.

The last two seminal books seeking to examine Mies's work were MoMA exhibition catalogs published in the early 2000s: *Mies in Berlin* and *Mies in America.* Recalling these tomes, which together amount to nearly one thousand pages, one might well expect that a single monograph such as Detlef Mertins's posthumously published study on Mies's work would not satisfy the expectations of an informed reader. Mies's work is as complex as were his influences. Yet if these two catalogs were The Beatles' so-called "Red and Blue" Albums then Phaidon's recent publication undoubtedly would be the "White Album." Indeed, its title is simply *Mies,* in white capital letters.

Mies is both staggering and smooth, much like a novel, and not easy to put down. The book is organized into five chapters, followed by a discussion on Mies's event spaces. Although Mies is introduced as a philosopher-architect, Mertins never considers his architecture as applied philosophy. Instead, the author lays out the cultural grid within which Mies's work is critically incorporated. The genius of Mertins's writing (which is never pretentious) becomes apparent and especially compelling, for instance, in the chapters on the Riehl House and the Barcelona Pavilion, when he provides a possible reading of the latter in terms of Augustine's trinity of mind and gives insights into the former by telling us how Riehl's own philosophical thinking resonates with the country house.

Given that *Mies* is a compact book of 560 pages, Mertins's study is surprisingly detailed and inclusive. The tendency toward a complete presentation of the architect's work becomes clear right from the beginning, and Mertins is equally well informed on manifold aspects, be it a project's structural system, philosophical concept, or historical context. All the principal protagonists are introduced and woven into the larger fabric of each project, both those who fueled the theoretical discourse and those who were part of the often invisible dynamics that operate in the background of every commission—an aspect that seems ever-more curious for young architects today. Many of these constellations are spelled out in anecdotal ways; for instance, when we learn how Phyllis Lambert finally decided to select Mies "out of a long list of leading Modernists" to design the Seagram Building, which she had received from Philip Johnson. It is also soothing to hear that even the most thoughtful planning process cannot anticipate everything: the Farnsworth House was flooded several times over the years, even though Mies elevated its floor way above ground. He just could not predict subsequent site conditions after the 1940s.

Mies is beautifully illustrated with images, plans, and sketches. Figures are numbered continuously and woven into the text to maintain the flow like a storyboard. However, the typesetting has such narrow line spacing that it is difficult to keep track of each sentence, and I wish the overall text layout was more generous.

Although, at times, Mertins emphasizes Mies's approach to the expression of structure, he applies the same "both/and logic" (as opposed to an "either/or structure") that he attributes to Mies in his own writing: for him, Mies's architecture binds together dualities. As much as the architect seemed to have resolved his contradictory aspects—he once said his work is both progressive and conservative—Mertins, by contrast, is a master of transforming two mutually exclusive interpretations into constellations in which both equally prevail and reinforce each other. Such is the case in the chapter on "860-880 Lake Shore Drive," which is portrayed as a principle of objective expression in outer form and as a continuous envelope, achieved by mullions even on the face of the columns themselves. Indeed, it would be more convenient to describe these apartment buildings as either a structurally consequential cage or a beautifully knit envelope that maintains its own unity, although Mies, in fact, sought to arrive at both ends without compromising his dedication altogether. Here, Mertins makes this moment of reconciliation between visual and structural logic accessible to us, a union that is deeply embedded in the contemporary theoretical discourse around Mies. The fact that Mies preferred a more conventional apartment building to live in conjures another smile on the reader's face. In the same chapter, a champagne flute, photographed by Walter Peterhans, is woven into a discussion of neo-Kantian aesthetics that centers on the ambiguity of identity. The two apartment towers suddenly become even more thought provoking as many more possible readings start to gather in the intellectual spaces that Mertins has so generously arranged for us. *Mies* is pure bliss.

—Tim Altenhof (PhD '17)

The Architecture of Paul Rudolph

By Timothy Rohan
Yale University Press, 2014, 300 pp.

No account of Yale's Art & Architecture Building is as funny, or accurate, as Vincent Scully's jaunty appraisal in the *Architectural Review* (May 1964). "The hysterical twittering," Scully wrote, "of the ninety-four painters who are caged in what can only be regarded as its entablature, and the heavier, troglodytic resentments of the seventeen sculptors who have been driven down into its second basement, are more than matched by the euphoric beatitude of the one hundred and seventy-three architects and planners who, under the white-painted eyes of Minerva, are now expanding grandly through its airy middle floors." Paul Rudolph, the architect of the building, never forgave Scully for that review. Yet it neatly captured the furiously conflicted reactions that the A&A Building has aroused since it opened in 1963: affection for its spatial generosity, exasperation at its violently hammer-beaten concrete walls, and bafflement over its labyrinthine inscrutability.

Timothy M. Rohan's lucid and splendid monograph is the first study to make sense of Rudolph's entire career. There is a certain poetic justice that Yale published the book: for it was Yale that made Rudolph, and, Yale, in the end, that broke him. In 1958, when he was selected chairman of Yale's Department of Architecture by a search committee including Scully, he was best known for his imaginative Modernist houses around Sarasota, Florida. When Rudolph left Yale seven years later, he was easily one of the world's most prominent architects. Yet his reign was brief, and when the A&A caught fire in June 1969—the flames heightened by its cavernous spaces—the prestige of such Brutalist concrete megastructures was collapsing, as well. The legendary fire would become the indelible token of that collapse.

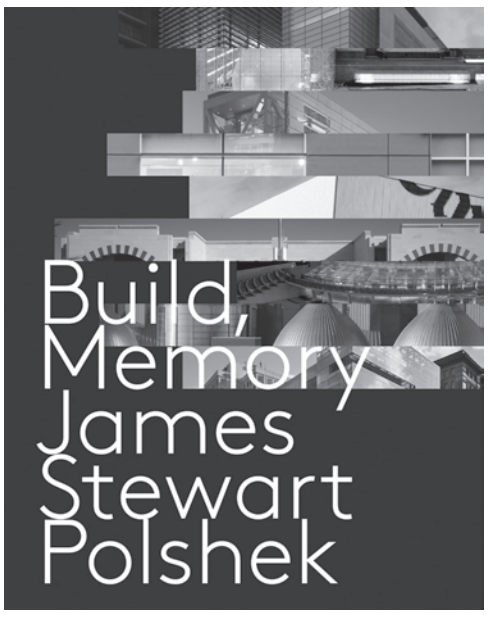
It is the great merit of Rohan's book to bring Rudolph's intractable buildings into alignment with the equally difficult architect who made them. It is not an easy task, as Rudolph was famously remote. Born in 1918, he was the son of a minister who moved frequently (Rudolph counted fourteen different childhood homes), a trait he shared with Frank Lloyd Wright, who likewise began his career with a torrent of provocative, highly intelligent houses. During World War II, Rudolph served as an officer in the Navy, where he acquired the military crew cut and severe style of command that he retained throughout his life. Rohan suggests this was a way of compensating for the discreetly veiled homosexuality that might easily have derailed his career.

Rudolph forged his Modernism out of two sources: Walter Gropius, who taught him the International Style at Harvard, and Le Corbusier, whose Unité d'Habitation, in Marseilles, astonished him with its richly sculptural use of concrete. He was not the only architect to weld these sources (one thinks of Louis Kahn, whose Art Gallery is just down the street from the A&A), but Rudolph did it with remarkable idiosyncrasy and panache. Rohan gives us a great many of his drawings, including a spectacular cross section of the A&A. These drawings make clear that Rudolph is one of those rare architects whose buildings can be more easily grasped in section than in plan: for example, shelves of space perch at various levels, slotting into position like ice-cube trays in the freezer, with unexpected vertical shafts emerging between them. Rohan demonstrates how Rudolph's New York City penthouse apartment recapitulates this layout in miniature to erotic effect: the Plexiglas-bottomed tub, shower, and Jacuzzi could be viewed from the guest bedroom and kitchen on the floor below.

This whimsical note is an exception: most of Rudolph's work is relentlessly earnest and humorless. One can easily sympathize with the swift rejection of Brutalism in the late 1960s; often, it took only a single realized building, which never looked as good as the perspective rendering, to discredit the entire movement. Rudolph's plan for the Boston Government Service Center was one such structure, brilliantly worked out in every respect—constructively, scenographically, urbanistically—and yet desperately unattractive as an object in the city. Sadly, Rudolph's prestige has remained intact only in Asia, where a series of aggressively detailed tall buildings in Jakarta, Singapore, and Hong Kong form a rather melancholy coda to his career.

Widespread public dislike for Brutalism has made Rudolph an unfashionable subject for historians, and Rohan is the first serious scholar to write about him with critical detachment. He gives us a scrupulous reconstruction of Rudolph's work as well as performing the more difficult task of revealing its idealism and humanism. It is difficult to look with sympathy at a drawing like the gorgeous yet terrifying view of the vast city corridor that Rudolph imagined would slice across Lower Manhattan, lined with oddly diagonal apartment houses. However, Rohan characterizes these buildings within their Cold War context, as heartfelt responses to the existential anxieties of the era. Thus, he allows us to recollect how Scully was able to praise the A&A in terms that are now strange to us: "How raw and violent it is—that is, we are—how resourceful, determined, and uneven in strength; all this so truly, openly, with so much talent, I think bravely, stated here."

—Michael J. Lewis
Lewis is the Faison-Pierson-Stoddard Professor of Art History, at Williams College.



Build Memory

By James Stewart Polshek
Monacelli Press, 2014, 528 pp.

James Polshek ('55) opens his thoughtful and absorbing memoir with a quotation from Vladimir Nabokov about time being a flying carpet, folded over and over so that events overlap one another, and creating a pattern through one's life. "Let visitors trip," warns the Russian novelist. Polshek is attracted to Nabokov's model of memory, with events juxtaposed next to each other in layers, as if viewed through a stack of tracing paper. The architect also identifies two mentors who helped guide the memoir: Tony Judt and Abraham Flexner, heroes whom one might not expect to find in a reflection on the life of a designer. British historian and commentator Judt, Polshek explains, wrote about the late-nineteenth-century milieu that mixed professional self-confidence with a sense of duty to contribute to the improvement of the civic realm—a combination that strikes a chord in an architect who came of age as a designer in mid-twentieth-century America. Flexner, a medical educator who helped found the Institute for Advanced Study at Princeton, wrote extensively on the role of the professional in society. Polshek likens architecture to medicine in its capacity as a "healing art," and mentions one of Flexner's six defining characteristics as particularly apt to architecture: a profession must be "altruistic in motivation."

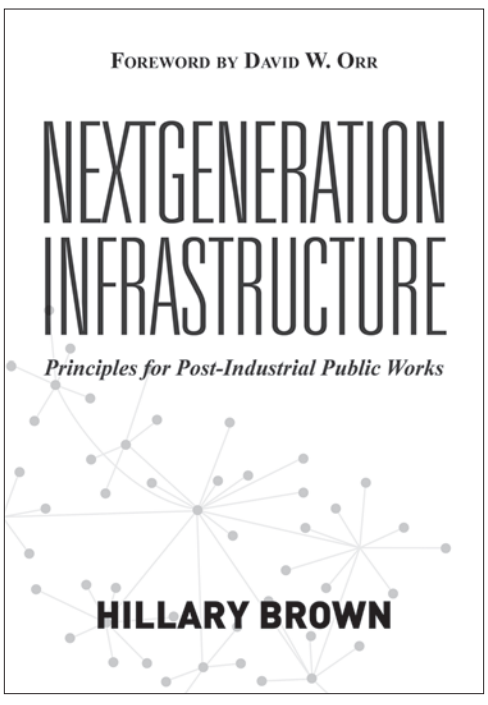
In the introduction, Polshek writes of his evolution as an architect: his switch from premed to architecture at Western Reserve and his migration east, from Ohio to Connecticut, to study architecture at Yale (with a stop on the way at the United Nations construction site in New York City, where he bumped into Corb in an elevator—a "good omen," he notes). Stints with I. M. Pei and Ulrich Franzen followed, along with projects in Japan. In the 1970s, as Polshek's practice blossomed, he became dean at Columbia, finding creative compensations in a practice balanced with teaching. He also collaborated with younger design colleagues, a pattern that continued throughout his work. Polshek stepped down from his practice in 2005. He credits essential influences such as working in Scandinavia and Japan, with an emphasis on creating architecture based more "on structured design principles than on idiosyncratic form-making" and creating bridges between architectural formalism and social responsibility (he was one of the founders of Architects/Designers/Planners for Social Responsibility in the early 1980s). The way the work is presented in the book bears out these characteristics. Polshek writes about sixteen milestone projects in this volume, with sixteen more to be illuminated in a planned second volume.

The collection starts with Polshek's first large commission, in 1962, for the Teijin Institute for Biomedical Research, in Japan, and ends with Newseum, on Pennsylvania Avenue, in Washington, D.C., completed in 2008. His approach throughout the book is consistently autobiographical, with great emphasis on the people involved and the places he designed for. So unlike the typical architectural monograph with spare displays of lavish photography, Polshek's feels more like a scrapbook, with family photos, pictures of project team members and napkin sketches (one for the Clinton library bears the presidential seal, which actually stands in for a circular plaza in the plan diagram). Polshek discusses project meetings with clients in which he pokes and prods to get at their dreams about the architectural enterprises they are creating. The architect constantly takes measure of the people he is designing for, making decisions on the evidence assembled, the counsel of consultants, and collaboration with colleagues.

The "folds" in Polshek's history appear in Nabokovian fashion: the design of the National Museum of American Jewish History, in the first few years of the twenty-first century, overlaps with the architect's recollections of Louis Kahn's work for the Mikveh Israel congregation, (a project that never came to fruition), in Philadelphia, and Polshek's history of his student days at Yale and the studio space he and his classmates occupied in Kahn's Yale University Art Gallery, which Polshek's firm would restore fifty years after its completion. Polshek's story about designing *The New York Times* printing plant in College Point, New York, unfolds with a tangent on the place of news media in American life and the role of media moguls such as S. I. Newhouse, who founded the Newhouse School of Communications at Syracuse University, for which Polshek's firm designed a new addition in 2007. Throughout the text, you can see Polshek connecting the dots in a personal and professional odyssey.

"The unorthodox approach to memoir writing appeals to me," Polshek reveals in the preface. In this comprehensive and highly personal memoir, the architect shows how his architecture is a product of not only a penetrating intellectual reservoir of memory, values, and altruism but also a collaboration with colleagues and clients across a practice that spans more than a half-century.

—Michael J. Crosbie
Crosbie is associate dean and architecture department chair at the University of Hartford, West Hartford, Connecticut.



Next Generation Infrastructure

By Hillary Brown
Island Press, 2014, 264 pp.

It is hard to pick up a newspaper or listen to a newscast, much less attend any design professional event, without encountering discussions of sustainability, environmental problems, and related issues. One tends to forget that while the contemporary environmental moment is fifty years old, but the architectural and engineering community's collective focus on these issues only dates from the early 1990s. The U.S. Green Building Council was formed at that time, with the first pilot version of LEED launched in 2000. While LEED's initial focus was on individual buildings, it soon became clear that the problems were broader and offered opportunities to think at the neighborhood and urban scale, including infrastructure. The book *Next Generation Infrastructure* focuses on this holistic scale, highlighting not just problems of our large and aging infrastructure but, more importantly, the opportunities that exist in their rethinking and rebuilding. In solving local infrastructure and environmental issues, author Hillary Brown ('74) emphasizes key opportunities to help solve global environmental problems, most importantly climate-related risks.

The infrastructure that Brown describes—water, energy, transportation, and waste-disposal systems—is largely the product of the second half of the nineteenth century. Widespread use of electricity and lighting, for example, is just one hundred years old and aging rapidly. Brown illustrates the many places where infrastructure has failed, causing tremendous problems for local communities, and forcing governments to rethink these systems entirely to reduce environmental impact, lower costs, and most of all, create better communities.

The infrastructure that exists today was largely designed, built, and implemented in silos. Each department, from water to energy, transportation, and waste disposal, was developed in isolation as new technologies were developed. Water-supply systems and sewers, for example, were developed decades before electricity; thus Brown provides many examples of opportunities where these systems have been effectively combined such as Hammarby Sjostad community, in Sweden, which combines municipal waste stream, waste-water treatment, drinking-water production, and district power systems in a highly interconnected, nearly closed loop network that supports the new community while dramatically lowering both costs and environmental impact.

The key to the success of these projects lies in the multidisciplinary teams that come together to solve particular problems, such as deriving energy from waste, using byproducts of one system as an input to another, and working with natural systems. It is especially useful to see examples that rely on local low technologies, as in the return to the traditional water tank system for water supply in India.

The question that comes to mind, particularly in terms of the many successful examples discussed, is why these successful solutions are not more commonly applied. The political and design communities, much less the general public, seem to have little awareness of potential solutions to improve infrastructure, aside from simply fixing what exists. One of the most helpful things about this book are the metrics—cost savings, reduced emissions, and income generated from what were previous waste streams, all illustrated with clear, flow/relationship diagrams. The beautiful and highly functional projects at Sherbourne Commons, in Toronto, and New York's Croton Water Filtration systems are just two examples of what can be achieved. Designs like these that remarkably enhance local communities as well as solve critical local problems, contrary to the ugly and intrusive but necessary historic infrastructure facilities, should help to convince politicians and others to look for other new solutions. This is exactly the kind of information that is needed for progressive proponents of rethinking the infrastructure that supports their communities while also addressing key environmental problems.

Over the next few decades the United States will need to rebuild a great deal of its infrastructure. The many highly inventive examples cited in the book, often from outside of the United States, can serve as a great source of inspiration to communities as they embark on rebuilding these systems. The work of collaborative teams from some of the best architectural design firms in the world, such as Grimshaw's Solar Desalination Plant and amphitheater at Tenerife in the Canary Islands, will certainly inspire future ventures. There is a clear parallel here to the AIA's 2030 challenge. We can simply replace infrastructure more or less as it exists today or take advantage of an opportunity to create an infrastructure that is sustainable, responsive, resilient, future-proofed, and less costly—an asset rather than a liability. Hillary Brown's *Next Generation Infrastructure* demonstrates the potential for that better future.

—Bill Odell ('74)
Odell is director of the Science + Technology Group at St. Louis-based HOK.

Spring 2014 Lectures

The following are excerpts from the spring 2014 lecture series.

January 4
DAVID ADJAYE
Norman R. Foster Visiting Professor
"Work"

It is nice to be back in this hall, though I have a very faint memory of it, due to its intensity. *Metropolitan Architecture* was really trying to engage with the idea of the continent not as one of Africa's divisions into fifty-two countries, which have now become fifty-four, but to reimagine the context of the continent through its geography and its cultures and different sorts of habitations and to understand the habitations that are present in the continent, where they might be and why they are where they are.

We take on some projects that require an investigation, a topology test, or a reboot, and if they come under the umbrella of houses we use the opportunity to talk about the ongoing discussion of the domestic realm, its lowest form, and its working class, right through to the very wealthy people. So, it is really the whole range that we test as much as possible, and we retrieve four types: the working-class house, sort of a middle-class house, two middle-class houses, and a wealthy person's house.

We won the Smithsonian competition four years ago. It was an international competition on the Washington Mall, the twenty-third Smithsonian. … The museum is dedicated to the history of the African-American and the African-American lens as a way to understand what America is. It has about thirty-thousand pieces, but it is really about the narrative of the journey from Africa, the agrarian slavery and landscape, the migration into the urban landscape and cities, the explosion of art and music, and so on.

We won the competition by saying that we would make a building not like what you generally find in Washington, but something with a new kind of profile. The site is very close to the Washington Monument, so I argued that the building had to fall somewhere in between an artwork and a building.

January 16
DAN WOOD
Louis I Kahn Visiting Assistant Professor
"Behind the Scenes"

When we started the office we were just coming out of OMA and did not really know what kind of architects we were going to be or what our voice would be. We saw two possible paths toward a possible future. One of them I would call the Archigram or the Ant Farm route—basically, you end up at the same place. The Archigram route is the ivory tower, where you are thinking, drawing, developing your voice and ideas in isolation through academia and competitions. The Ant Farm was inspired by Archigram, but the model was just to go out and do it. And they built inflatables and organized a media van and filmed performances. We took the Ant Farm route and called ourselves "Work" because we wanted to define ourselves through work. We set down rules in 2003: Act bigger. Stay global. The inside is different from the outside. Plants and animals are important. Finally, when in doubt, paint it blue. We had a series of five-year plans. The plan was, "Say yes to everything." We are just going to do everything possible and take everything as it comes, including teaching. We did fifty or sixty real projects in that five-year period and hundreds of other things on the side. And some of the things we did never went anywhere.

We are always looking at the relationship between architecture and power, so at one point I decided to map all of our projects in relation to the instigating forces that organized the project, and we used John Kenneth Galbraith's definition of where power comes from. Power can come from wealth, property, organizational or institutional power, or the force of knowledge and personality. Most of our projects come from the latter: people who gained power through the force of their personality, the things that they think about, or the knowledge they have gained.

Our attitude is to push the power ball, a kind of Sisyphean relationship. Architecture and power are always related; one does exist without the other. I mean, power can exist without architecture, but architecture certainly does not exist without power. Power builds up to a pressure point where powerful people feel they need to express themselves through architecture and, normally, go broke.

January 23
SEAN KELLER
Myriam Bellazoug Memorial Lecture
"Automatism"

What is needed now is the maturation of architectural practice and criticism beyond isolated positions, so that computational methods can be considered within, rather than simply against, historical and aesthetic contexts.

Stanley Louis Cavell, professor of aesthetics at Harvard, chose the term *automatism* rather than one of the more established possibilities, such as *medium, form,* or *genre,* reflecting the importance he attaches to the idea that, at the level of artistic process, there is something automatic in the practices he identifies as automatisms.

One could say that what architects must propose today, to greater and lesser degrees, are automatisms of automation. That is, an architect must attempt to wrest a substantial way of practicing out of the various, and variable, constellations of automated technologies available.

As Cavell sees it, the Modernist artistic process runs between two unacceptable poles: systemization and chance. On one side is the risk of "total organization," demonstrated by the compositions of Karlheinz Stockhausen, where artistic responsibility is displaced by an empty formal system. On the other side is the "radical ceding" of artistic control and even the dissolution of art itself, proposed by John Cage's chance operations.

I propose that Cavell's concept of automatism suggests what a "critical" contemporary architecture could be—"critical" in a Kantian sense of questioning its own ground—an architecture that encompasses but also moves beyond the automations of computation.

The limitations of applying such a concept to architecture seems to lead to the familiar situation in which "serious architecture"—or simply "architecture"—is only a minor subset of building. I'm not sure that another possibility exists within late Modernism. For his part, Cavell recognized the similar condition of art but was careful to characterize it in a manner that may give us some small comfort: "While the community of serious art is small," he said, "it is not exclusive—not the way an elite is exclusive. It is esoteric, but the secret is open to anyone."

February 13
TREVOR PAGLEN
"Seeing Machines: Geographies of Photography, Control, and Our New Algorithmic Overlords"
Roth Symonds Memorial Lecture

I am going to talk about secrecy and seeing secrecy. I am an artist, a photographer, and a writer sometimes. Although I am an artist, I am not the kind that goes into the studio every day and comes out with something that I made. …. It is a different kind of a practice; it is a very empirical practice. I spend a lot of the time going around the world and looking at things. I have been spending a lot of time in helicopters lately.

Overall, my projects tend to be about seeing, in a way, and trying to push vision and seeing and perception to the point where they break down. I am really interested in what the line between the knowable and unknowable, the visible and the invisible, is; for me, that is a way to continually see the world with fresh eyes. We can keep pushing the world until it breaks, and then we can see something new and different. That is really what I want out of art—things that help us see who we are now.

Within the overall project of seeing, invisibility, and perceiving limits, I have been very interested in state secrecy and have done a number of projects about the question of how to see secrecy.

People tend to think about secrecy as what you get to know about versus what you do not get to know about… I think that is completely wrong: I do not think about secrecy that way at all… I think of secrecy more as a way of doing things, a kind of organizing logic, a logic of organizing activities, institutions, and infrastructures that has political, economic, or legal dimensions, and, of course, even cultural dimensions. It is a way of doing things whose goal is invisibility, silence, and obscurity. In this way, secrecy is something that, in geography, we might call an abstract space because it does not really exist: instead, it is a logic. It is a set of immaterial ideas that are applied to things but that do not exist in any sort of physical way. In the real world, secrecy can exist only insofar as its logic is applied to stuff in the world, the material world that everything in the world is made of. So in real life, secrecy is made out of infrastructures.

We are now seeing at an extreme, seeing at a distance, and seeing what happens when vision and perception starts coming undone. We see a classified image of the premier U.S. chemical weapons testing range, but it is also a photograph of what it looks like when you push the physical properties of vision as far as they will go. It is literally a photograph of what it looks like when vision begins to collapse. … What I want out of art is things that help us see the world that we are living in, things that help us see all the things that are going on that, in many ways, we do not know how to see or do not know how to notice.

February 20
GREG LYNN
Davenport Visiting Professor
"Old School Digital"
Opening lecture of the symposium
"Digital Post-Modernities: From Calculus to Computation"

In terms of my personal ambitions and, to some degree, those of the Canadian Centre for Architecture, this is not a history of digital technology, nor is it scholarship. This is really archaeology. It is not about practices; those projects are like core samples of practices in some way. … We are generating an oral history in which we interview everyone, the teams and collaborators and associates; we are trying to inventory the actual equipment, the hardware and software that was used in the offices, and we are comparing it with both digital and analog material. One of the interesting things in the Yale show is that the computers, manual drafting, and model building were more or less running at the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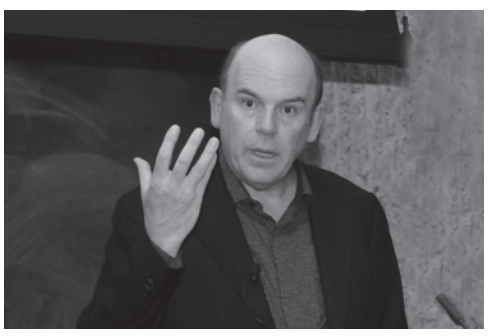
DAN WOOD


SEAN KELLER


TREVOR PAGLEN

GREG LYNN



JIM EYRE

DEBORAH BERKE

ANNETTE FREYTAG

same speed at this time, so it was very easy to test the two mediums against each other and cross back and forth.

It is very hard to theorize tools that have not been well documented or understood in a generalizable way. So, part of this show is to clarify what the roles of software and hardware were and to make the documentation accessible to scholars.

In an interview Peter Yesios said, "I am going to have nothing to talk with Peter Eisenman about in terms of working with a computer," then, by the end of the project, he realized Peter *was* a computer. He described him as a speaking computer, and I remember very well Peter's desire for a procedural process, something that was reversible where you could make sequential decisions and then go back and change a decision in the chain and replay the design process, which was what he saw in the digital technology of the time.

Many people think digital technology was cooked up in the attic of Columbia University and paperless studios by people of my generation, but the fact is that a bunch of older dudes who already knew what they wanted to do were using computers to digitize things they were already looking at—it was not only kids.

These five projects describe five trajectories by people [Greg Lynn, Peter Eisenman, Frank Gehry, Chuck Hoberman, Shoei Yoh] who had a design intelligence that guided the computer and were not "born digital"—this was not something that came as second nature to them the way it would to most of the students at Yale right now. As a postscript, none of these people really thought that the critical part of computers was important, as we do today.

March 31
JIM EYRE
Gordon H. Smith Lecture
"Exploring Boundaries"

This lecture has the same title as my 2008 book because I think a lot of what we do is to explore our own boundaries rather than those of the discipline.

I have four themes. One of them is manipulation, which is not as sinister as it sounds. It is really just about configuring materials and the various tectonic elements to achieve what we are trying to do in terms of form. The second is collaboration, which is really about our relationship with nature. Thirdly, regeneration takes many forms, but, for me, it is about working with existing buildings and the aspect of memory and identity; and the fourth is celebration, which I will come to a little bit later.

Often, we are blurring the boundaries between disciplines, but, principally, we work at the boundary of architecture and engineering. We really enjoy working with engineers who have a good understanding of architecture, and they can be structural or civil but also environmental engineers. Occasionally, we stray into sculpture, which is considered by many to be dangerous territory.

Now you would expect architecture to be fertile territory for technical innovation, but, in the construction industry, innovation is actually agonizingly slow. The reason is that every building is its own prototype, so there is a limit to what you can do each time. Technology is often transferred from elsewhere. I have always been interested in the notion that architecture straddles the line between science and art: Science, of course, being the tangible, finding out how things really work or what really exists, and art being rather more like holding up a mirror to ourselves. But I think that in technology, often seen as a branch of science, creativity is still king, and innovation comes from applied inventiveness. It is very different from pure science, the scientific method of gathering data and proof. So, in architecture, creativity can be technological or just aesthetic.

The twentieth-century construction industry really got too utilitarian at times. If you have limited resources, you should do things for the lowest cost to spread benefit across society; but that does not always work in the direction you want it to because ingenuity gets directed to cost instead of well-being in the widest sense or the efficient use of materials. This is a really aggressive approach if it is erosive or applied to the environment, which deserves our respect and is far too valuable to ruin. After all, as architects, we actually believe we are enhancing people's lives with what we do.

April 3
DEBORAH BERKE
Bishop Visiting Professor
"Out of the Ordinary"

I have long been interested in the everyday and the ordinary. This is the new ordinary: as of Monday, there were more than 430 million of these [iPhones] in the world. That was Monday—who knows what it is by today.

I like the regular and the useful, but I want them to have a more resonant meaning and connection to everyday life. I believe one has to believe in something and have those beliefs manifest in the work, which is what I am going to talk about.

I think architecture should effect change in a world that is changing very rapidly. Much has been said about the dramatic new world created by the Internet and other forms of electronic communication and computation, but, finally, with the exception of my nice little boat, buildings do not move: they sit where they are built, and a rapidly changing world whizzes around them. Buildings collapse an enormous amount of time, energy, and materials into a single moment; they collapse the efforts of many into a single object. Another idea I am interested in is going back to that seemingly simple object again and again and finding something new. I want to embrace a back-to-basics approach to architecture, maybe with a little twist of social responsibility, not groaning over community participation but relishing in it. I think it is important to take pleasure in designing the working parts of your architecture as much as the image making. I like making the architecture of the back of house, and the key to our philosophy of practice is to acknowledge the collaborative nature of the endeavor.

Being an architect is more like being a playwright and less like being a painter because you are so dependent on the skills and commitments of others for the realization of your work. I do not think architecture is problem-solving, although in the process of making architecture there are certainly plenty of problems solved. For me, architecture is about making something you believe in, something that expresses your beliefs, about doing many things simultaneously, many of them burdensome, like the building and zoning codes, ADA and LEED standards, irrational expectations of clients, and conflicting expectations of many communities. … I am interested in the explicit and the implicit, the invisible and the visible, the unpredictable but inevitable space, light, form, material, function, program, environmental, and community responsibility and engagement—and the poetry of everyday life.

April 10
ANNETTE FREYTAG
Timothy Egan Lenahan Memorial Lecture
"Back to the Roots: Topology and Phenomenology in Landscape"

I was trained as an art historian, but, in the mid-1990s, I became so intrigued by the potential of gardens and landscape architecture that I decided to dedicate my life to their analysis, promotion, and protection.

I have developed a framework and tools to recall the potentials of landscape architecture—at ETH, we call this approach *topology*. Although I am convinced that we could create and maintain an environment that is both livable and beautiful, even in the midst of a rapidly changing world, I am more and more disheartened by examples that seem determined to prove the opposite true. This is an example of our overwhelming daily reality.

Therefore, I have divided my lecture into three parts: observations, diagnoses, and conclusions. And the conclusion is that we need to rethink the theory, education, and practice of landscape architecture, at least in Europe.

Today's architecture has very often disconnected itself from the terrain and the soil. Landscape architecture has followed this trend. Our environment is dominated by the logic of finance, and finance is not economy, as sociologists recently stated at the conference that our chair organized. Financial capitalism has nothing to do with economics anymore. It permeates everything.

Art has become the placebo of our time. Remember how Patrick Blank's vertical garden was called an ecological art form? The superficial emphasis on artists in landscape projects threatens to raise the real competencies of the discipline. In Europe, landscape architecture has been turned into a mere festival. Urban space is increasingly dominated by temporary gardens. A quick smile on the faces of people who walk by and then an admittedly positive kind of activism have become more important than the correctly executed craft of the landscape architect.

If important knowledge about plant use can no longer be taken for granted with regard to the design of landscape architecture projects at all scales, then the ecological and aesthetic conditions of open space are at risk.

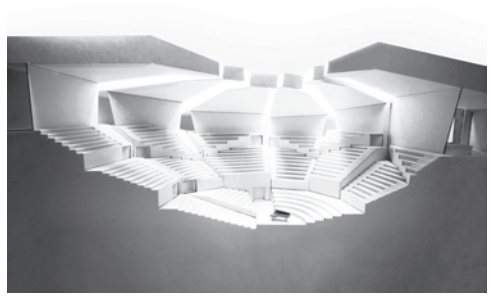
The strongest motivating force for achieving the objectives of landscape architecture is undoubtedly the environmental movement as carried out in Europe since the 1960s. It has generally dictated people to be the enemy; this movement propagates without people.

I am also convinced that the landscape architect is the ideal urbanist and that the landscapist attitude should be the promoter of urbanism today. I still struggle with the program of landscape urbanism, at least how it is interpreted in Europe, which only works well as a large-scale strategy, but, at the small scale, has little concern for the physical well-being or the interaction between humans and nature. In brief, it mainly ignores the topological and phenomenological dimensions of landscape architecture because here you are up, but there you are down.

With landscape you find yourself always in the labyrinth of Daedalus, and if you want to feel comfortable, you need topology and phenomenology.

—The lecture excerpts were compiled by Nicolas Kemper (BA '11, MArch '16).

Advanced Studios Spring 2014



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Frank Gehry

Frank Gehry, Louis I. Kahn Visiting Professor, led a studio with Trattie Davies (BA ’94, MArch ’04) that addressed the design of a new concert hall for London’s Barbican Centre, replacing the subterranean 1,949-seat Barbican Hall. The students were asked to reimagine the place of the concert hall within the 1982 Grade II-listed historic complex, which includes multilevel housing, outdoor cafés, and arts venues.

After conducting precedent studies of concert halls, the students traveled to London, Paris, and Berlin to attend concerts and visit venues, joined by Ara Guzelimian, dean of the Julliard School of Music, and Meaghan Lloyd (’00), partner in Gehry’s office. In London, they visited the Barbican site and met with city planning officials, Barbican directors, and the London Symphony Orchestra. In Paris, they saw IRCAM, Frank Gehry’s LVMH Foundation for Creation, and Jean Nouvel’s Philharmonie de Paris, both under construction. The students then attended a concert at the Berlin Philharmonic and met with conductors Sir Simon Rattle and Daniel Barenboim, who shared their insights into the relationships among space, audience, performer, and performance.

On their return, the students focused on the spatial organization of the new concert hall, issues of insertion on the site, the visual prominence of a new building versus its concealment, and the new building’s connection to its complex surroundings. Constructing large models to explore these relationships, the students found that the interiority of the projects was their primary focus for creating ways of welcoming concertgoers into the space. Some students created designs that were organized through sculptural folds, like accordions, and others made sloping roofscapes or double shells. One resembled a geode, as if the stage were trapped in what Stanley Tigerman called a “magic rock.” Some designed rotated spaces, resulting in an asymmetry that related to the forces outside of the Barbican and focused on seeing the audience across the theater. Another placed a cupola on the building to give it a striking profile when viewed from afar.

Structures rose above the preexisting Barbican buildings to form a new sense of place. Students presented to a jury of Kurt Forster, Sam Gehry, Ara Guzelimian, Michael Kimmelman (BArch ’60, MArch 61), Greg Lynn, and Stanley Tigerman (’60).

David Adjaye

David Adjaye, Norman R. Foster Visiting Professor, and Brian Butterfield (’11) asked their students to focus on working conditions and wages in the Bangladesh garment sector—comprising 3.5 million workers, of which around 80 percent are women—which is in need of reform if global brands are to maintain production and contribute to the economy. The students proposed a hybrid building or campus to address the needs of an emerging middle class, and to examine the potential for coupling new factory buildings with housing and social programs on a site either in a rural area or in Dhaka.

The studio began with visits to New York City, where they observed processes in the garment industry and were informed about issues of technological advances in manufacturing and how they impact labor. They then analyzed the industry in Bangladesh via in-depth statistics, looking at labor issues, organizations, and political efforts to improve local living conditions.

Architecturally, the students were inspired by Modernist projects such as Lutyens’s New Delhi, Le Corbusier’s Chandigarh, and Louis Kahn’s 1974 National Assembly building in Dhaka, which they visited on their studio trip with architect Kashef Chowduhry, as lenses through which to examine the region’s architectural legacy. Combining research on the regional palette and spatial typologies, as opposed to the mimicry of Modernist utopian tropes, they designed projects that bridged contemporary global culture and economy at both architectural and urban scales.

One student sited his project on the grounds of the now demolished Rana Plaza factory, which collapsed in 2013, striving to memorialize the site while proposing a new adjacent workers’ town. Several projects focused on the dense urban context of Dhaka by creating courtyard amenity spaces and support programs as well as improved access from roadway to factory. Similarly, one student recognized that the congestion of the main rail and highway lines bifurcated the city and proposed a linear infrastructural spine, with factories built along interstitial spaces and safe pedestrian crossing paths stitching together the city. Another student was inspired by the color, materials, and light of the traditional Islamic brick *jali* screens to negotiate between privacy and safety and new notions of domesticity for female workers. Several students addressed the villages of the northern river deltas’ flood zones by including storm-water strategies to protect neighboring fields, so that the factory infrastructure became a device to improve agricultural production and resiliency.

Above all, the students grappled with how to maintain industries in a place that is facing rapid urbanization and an influx of new capital but is lacking long-term strategic planning for national growth. They presented their projects to a jury comprising Tim Altenhof (PhD ’17), Pier Vittorio Aureli, Kashef Chowdhury, Nikolaus Hirsch, Rubana Huq, Kishwar Rizvi, Chris Van Bergen, and Paul van Zyl.

Brigitte Shim

Brigitte Shim, Saarinen Visiting Professor, and Andrei Harwell (’06) led a studio organized around an international competition for the revitalization of the 1960s Intercontinental Hotel and the adjacent Vienna Skating Club, bordering on the Ringstrasse, in Vienna. The students were asked to explore the hotel as a unique building type that embraces and engages both public and private realms. They were challenged to retain and incorporate or demolish the existing hotel and required to reinvent the landmark Vienna Skating Club, as they reconsidered the nature of public space in the city.

Beginning with design exercises that explored a range of scales from urban to building to room, the students developed strategies and attitudes about the interface of different users of the site: guests, skaters, school groups, concertgoers, and tourists. Working at the edge of a UNESCO historic district raised distinct questions about the importance of contextual urban design versus iconicity. The diverse results exemplified these challenges, as some students made small object buildings dispersed across the site, while others reinterpreted the Viennese perimeter block type, with buildings organized around courtyards. Several projects explored ways of creating a new ground above or below the level of the existing city to produce new and unusual relationships between the public and private elements of the program, the city, the neighboring Wiener Konzerthaus, and urban infrastructure, such as the adjacent subway line. Whereas some projects produced a single megastructure, others broke the program down into more manageable families of smaller buildings or wings.

The final reviews included Deborah Berke, Sunil Bald, Karla Britton, Kashef Chowdhury, Joseph Clarke (PhD ’16), Kenneth Frampton, Alan Organschi (’88), and Billie Tsien (BA ’71).

Greg Lynn

Greg Lynn, Davenport Visiting Professor, and Brennan Buck asked their students to indirectly address the issues raised by Hurricane Sandy, which has developed into an ongoing discussion with broader consequences. Instead of beginning with a problem from outside the profession, they recognized that worthy intra-architectural problems could change a design response to the emerging challenges of civic infrastructure in densely populated urban areas. The students focused on topics that included the expanded field of infrastructure as an opportunity to marry monumental form as civic design with structural expression and/or landscape design. A second issue was that of the design of an infrastructural interior, or “infra-interior.” To imbue infrastructure with internal experience, character, and identity, the students were to avoid the design of empty façades cladding large urban machines, even if it forced functions and experiences in unprecedented ways. In another area of investigation, the students probed new materials and their structural and formal implications, as exemplified in the composite Neal Bridge, in Maine; explored extracting energy and directing natural forces, in projects such as the Bath County Pumped Storage Station, in Virginia; and investigated a new paradigm for relating to a global ecology that is in transition with rising sea levels and climate change.

After a study of surfaces in relation to flowing water, the studio traveled to the Tennessee River Valley to tour TVA dams and locks operated by the Army Corps of Engineers. Upon returning to New Haven, each student considered the dam through its typology: the arrangement and orientation of its components (dam, turbine hall, penstock, turbines, draft tube, electrical distribution station, fish ladder) in relation to an abstract site.

After the midterm review, the students toured hydroelectric dams in Connecticut, and each selected a local site for a new or modified dam. The students were challenged with issues of integrating both visitors to the dam site and the to violent pressure of water as well as the need to make their designs accessible to all individuals. Students presented their projects to the final review jury comprising Michelle Addington, David Adjaye, Mark Gage (’01), Frank Gehry, Chuck Hoberman, Walter Hood, Jeff Kipnis, Nicolai Ouroussoff, and Stanley Tigerman: this jury considered the wide array of typologies representing new concepts for how a dam can work, from reconfigurable floating elements to a massive packed-earth bar with a huge rotating lock and turbine hall.

Peggy Deamer

Peggy Deamer based her studio in Reykjavik, Iceland, to explore the issues of an island nation with unusual natural resources, such as geothermal and hydroelectric sources, and lack of those for building construction, such as steel, aluminum, and glass, which shape approaches to production and design. Asked to design a new domestic airport adjacent to the main hospital, the students were challenged to focus on the design of a curtain wall to address the issues of energy efficiency along with the redeployment of resource assets and deficiencies. Working with Peter Arbour (’04), a curtain-wall consultant at Seele, they learned about the application of detail design and procurement issues in relation to the problems of quality fabrication and collaboration in the real world.

During the studio trip to Iceland, Hildigunnur Sverrisdóttir, director of studies in architecture at the Iceland Academy of Arts, and architect Steinthór Kári Kárason introduced the students to local political and economic issues, leading the students to recognize that the airport, set in the middle of valuable urban real restate, was a local politically and economically charged site that had to provide for the broader needs of regional residents to access the nation’s only hospital. The duality of the studio brief—the curtain wall and urban design—required the students to juggle the extreme scales of detail and urban context and find a synthesis through their building design, eliciting many unfamiliar approaches.

In selecting the program of their choice, students privileged one scale, leading to a diversity of schemes, from a linear airport factory with a circular craft production hall for ease of delivery to zigzag schemes for a convention center and a circular tourist hospital. Some sited their buildings along the waterfront to allow for views, and others oriented their scheme to the nearby residential district. A few researched the environmental issues relating to curtain walls and others to the structural systems of bridges as potential directions for their designs.

The students presented their projects to a jury that included Peter Arbour, Daniel Barber (MED ’05), Anya Bokov (PhD ’16), Keller Easterling, Rainer Hirth, Timothy Hyde, Theodossios Issaisa (PhD ’18), Steinthór Kári Kárason, Hildigunnur Sverrisdóttir, Frano Violich, and Dan Wood.

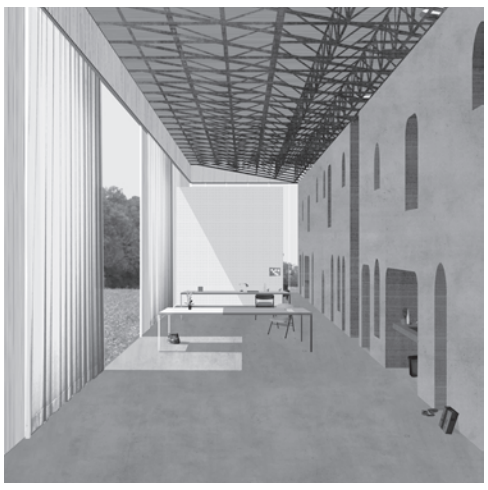
Deborah Berke

Professor (adjunct) Deborah Berke and Noah Biklen (’02) engaged students in the design of a 50,000-square-foot institute and advocacy center, in Reykjavik, dedicated to issues of digital transparency, Internet privacy, and free speech. Iceland is emerging as a global free-speech safe haven following the 2008 banking crisis, which provoked widespread concern about issues of corporate and governmental transparency and the role of the Internet in public life. In the aftermath of the crisis, Iceland’s parliament passed the Icelandic Modern Media Initiative (IMMI), which rethinks the necessary protection of free speech in the Internet era. Iceland has the highest percentage of European households with Internet connections and an emerging industry in geothermal-powered data centers.

At the beginning of the semester, the students completed short design projects relating to the “architecture” of the Internet, data mining, and surveillance, changing their understanding of privacy, the politics of access, encryption protocols, and open-source networks as well as the spatial implications of these digital networks. Along with the virtual, they explored the visual style and materiality of the computer and data-storage facilities.

During their travels to Iceland, the students toured a server farm, met with a member of parliament who has dedicated herself to open Internet regulations, and visited the site. Back in the United States, they met with experts on digital security and anonymity in New York City as well as journalists who have been writing on the topic.

As the students investigated the intricacies of the Internet, they tackled issues of transparency and privacy as well as free



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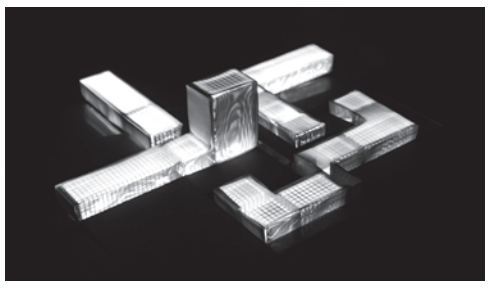

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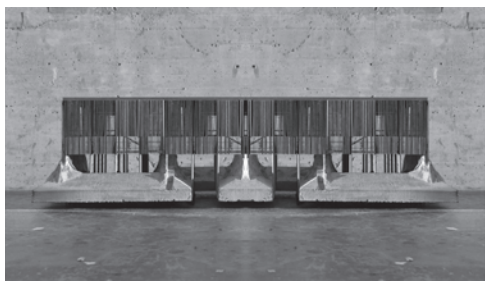

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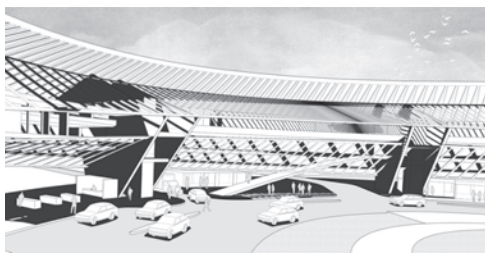

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1. Ivan Farr, project for Frank Gehry advanced studio, spring 2014.
2. Constance Vale, project for Greg Lynn advanced studio, spring 2014.
3. Daniel Jacobs and Brittany Utting, project for Pier Vittorio Aureli advanced studio, spring 2014.
4. Thomas Medek, project model for Peggy Deamer advanced studio, spring 2014.
5. Kate Warren, project for Deborah Berke advanced studio, spring 2014.
6. Olen Milholland, project for Brigitte Shim advanced studio, spring 2014.
7. Allen Plasencia, project for David Adjaye advanced studio, spring 2014.
8. William Sheridan, project for Dan Wood advanced studio, spring 2014.

speech, which became a fertile source for creativity. To design architecture that explicitly expresses these current unresolved issues was a thought-provoking problem that confronted the students more deeply than expected.

They presented their projects to a jury comprising Peggy Deamer, Martin Finio, Cathleen McGuigan, Dan Michaelson, Mary McLeod, Emmanuel Petit, and Damon Rich.

Pier Vittorio Aureli

Pier Vittorio Aureli, Davenport Visiting Professor, and Aidan Doyle ('10) led a second studio on the theme of housing in America. This semester, the students focused on domestic space as a place of exploitation and gender discrimination, proposing social reform through a critique on the role of production and reproduction in the home. The studio investigated the spatial and social relationships of the home to develop alternative forms of domesticity, ultimately proposing new housing prototypes for the city of Houston.

Inspired by concepts developed by Lars Lerup in his book *After the City,* Ludwig Hilberseimer's work in the United States, and Albert Pope's ideas defined in *Ladders,* the studio began with a rigorous study of the home as both an economic and a political apparatus within the American city. Houston's lack of zoning regulations, as well as its emphasis on homeownership and the automobile, has made it the archetypical twentieth-century capitalist city, a form driven by private interest rather than coherent urban policy. Students sought to rethink this condition not through the apparatus of large-scale planning, but through the reform of domestic space.

After returning from the studio trip to Houston, the students, in pairs or individually, developed new prototypes for housing and cohabitation, investigating alternatives to the single-family house: singles' dwellings, cooperatives, communes, temporary living, and live-work shared spaces. By testing the basic conditions of residential architecture—walls, spaces, passages, enclosure, separation, and physical comfort—the students proposed domestic interiors for our contemporary conditions.

Some students addressed ways to provide flexible, shared work-live space; others investigated common spaces that also incorporated privacy. One focus was to find ways to annex the vacant in-between spaces in Houston, such as parking lots and forgotten gaps in the city, into housing. Another was how to reconfigure disused big-box stores for working and living. Making linear connections between them resulted in an archetype and the edge condition of suburban "ladder." One student created a linear spine as a communal space in which immigrant populations could gather.

Projects were debated by a lively jury that included Ioanna Angelidou (PhD '16), Andrew Benner ('03), Cynthia Davidson, Peter Eisenman, Keith Krumwiede, Lars Lerup, Mary McLeod, Emmanuel Petit, Alan Plattus, Albert Pope, Matt Roman ('09), Surry Schlabs (PhD '17), and Stanislaus Von Moos.

Dan Wood

Dan Wood, Kahn Visiting Assistant Professor, led a studio in Gabon, central Africa, focused on sustainable infrastructure, in terms of its potential to create new public space, and how architecture can represent the aspirations of a country transitioning toward a new post-oil economic base that could encompass eco-tourism, social and cultural institutions, and housing. Gabon's first wave of development followed its liberation from France in the 1950s and the discovery of oil off its coast in the 1960s. In those decades, eco-urbanist Marcello Di Olivo designed a master plan for Gabon's capital, Libreville with many Modernist government buildings, along the Boulevard Triumphal, as a forward-looking image for the country.

Students began the semester with research into precedents of transformative infrastructures, from Haussman's Paris to Sir Norman Foster's Masdar,and explored contemporary African urban issues. On their visit to Libreville, they critically surveyed the city, locating and documenting the remaining traces of the Modernist master plan.

The Sylvia Bongo Foundation, the National Parks Association (ANPN), and the Agence Nationale des Grands Travaux (ANGT), which is planning over seventy large-scale infrastructural and architectural projects throughout the country, informed the students about the country's demographics and economy. Together, the students developed a new plan for the Boulevard Triumphal, and then, back at Yale, worked on individual building designs.

The students investigated how new sustainable infrastructures could both transform the boulevard and create the opportunity for new representative public architecture with inventive programs, such as a transportation hub combined with a motor-vehicle office and a public market, both offering a reinterpretation of tropical Modernism. One student designed a building for a new entity, the Ministry of Open Space, which celebrated the voids within and outside of Gabon's cities. Sustainability and ecology issues were at the forefront of many of the projects, with one student designing a permaculture research facility merged with water-filtration infrastructure that responded to the rich sectional variety of the rain forest. For another student, urban water infrastructure led the concept for a water treatment plant coupled with a community center. Others adapted the local Gabonese context to a new public transportation that incorporated structures inspired by D'Olivo's projects.

The colorful tropical projects were presented to a jury including Ben Aranda, Nathan Browning, Glenn Cummings, Keller Easterling, Jorge Otero-Pailos, Brigitte Shim, Mark Thomann, and Neyran Turan.

Yale School of Architecture Books

The School of Architecture's publications office published new volumes of books in the on-going series described below:

Bass Fellowship Series

Recently released is the book, *Rethinking Chongqing: Mixed-Use and Super-Dense,* edited by Andrei Harwell ('06), Emmett Zeifman ('11), and Nina Rappaport. The book documents the work of the school's seventh Edward P. Bass Distinguished Visiting Architecture Fellow, Vincent Lo, of Hong Kong-based Shui On Land, and Saarinen Visiting Professors Paul Katz, Jamie von Klemperer, and Forth Bagley (BA '99, MArch '01), of the firm KPF, assisted by Andrei Harwell ('06). The advanced studio developed ideas for a dense, mixed-used site at the central rail station of Chongqing, in western China. The book features interviews with the KPF team and Vincent Lo about working in China. It also includes an essay by Daan Roggeveen and Michiel Hulshof about the growth of development in the region. The book includes a Chinese translation and is designed by MGMT Design of New York City and distributed by Actar D.

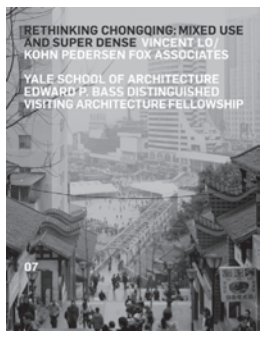
"On Demand" Series

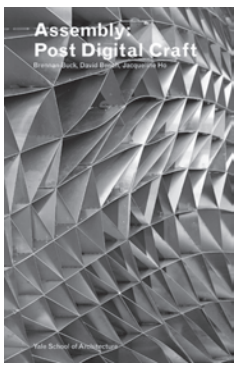
The "On Demand" studio series grows with new books featuring the advanced studios. These books are designed to the guidelines set by MGMT Design, published by the school, and then made available through the school's Web site.

The latest in the series is *Knowing How in Downtown Las Vegas,* on the work of professor Keller Easterling's spring 2013 eponymous advanced studio. Her studio focused on understanding and configuring new programs and potentials for downtown Las Vegas sites. The students took on the task of remediating environmental and developmental issues—problems related to infrastructure, water, garbage, suburban expansion, and energy. In addition to designing innovative structures, students were also tasked with creating an amplifying and multiplying "active form" that would operate in less obvious ways. The studio strove to be a precedent for the improvisation studio that values not only knowing *what* but also knowing *how*.

A Train of Cities presents the work of the three post-professional studios led by assistant professor (adjunct) Edward Mitchell and professor (adjunct) Fred Koetter and was published last summer. The book analyzes and recommends ways to revitalize the Massachusetts south-coast communities along the commuter-rail routes by networking their physical and economic patterns. Students designed projects for Taunton, Fall River, and New Bedford, envisioning the potential for education, new industry, housing, and agriculture as sources of economic growth and development for these older industrial cities.

The book *Assembly* documents a 2012 design-build project for a pavilion on the New Haven Green for the International Festival of Arts and Ideas. The project was initiated by students in the post-professional program and was constructed in the school's fabrication labs. The book includes a description of the design and building process as well as a series of essays and interviews on integral themes, including the teaching of digital fabrication in architecture and digital production in general. Assa Abloy supported the project and its publication.





Faculty News

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Michelle Addington, Hines Professor of Sustainable Architectural Design, delivered keynote lectures for the ninth International Congress on Sustainable Design, held at the Universidad Nacional Autonoma de Mexico, in Mexico City, and for the Intersections Symposium 2014, held at CUNY. She also lectured at the Institute for Renewable Energy, in Temixco. In the spring, Addington participated in a discussion with Sean Lally at the Van Alen Institute and in panel discussions at Harvard GSD, *The New York Times* Earth Day event, and at "The Energy Issue"—a collaboration between Columbia and the Architectural League of New York, which appointed her to its 5KL initiative advisory committee. At Yale, she has recently been appointed to the steering committee for the Center for Conservation and Preservation, of the Institute for the Preservation of Cultural Heritage. Addington also serves as the principal investigator for Yale's Solar Decathlon project.

Sunil Bald, associate professor (adjunct), with his partner, Yolande Daniels, and their firm, Studio SUMO, exhibited the Josai School of Management and the Mizuta Museum of Art in the U.S. pavilion at the 2014 Venice Biennale. Bald moderated the session "This Is Your Future" at the ACSA National conference and was a panelist at the opening of *To Draw Is to See,* an exhibit of student work from the Rome program, at the Hearst Building, in New York City (see page 11). Recent SUMO projects include a renovation and addition to the Borough Park Branch of the NY Public Library and a new 25,000-square-foot dormitory for international students in Togane, Japan, that will begin construction this November.

Deborah Berke, professor (adjunct), presented to the Mayor's Institute on City Design, where serves as an architect member, in June 2014. Her project 122 Community Arts Center, a restoration of a 1890s New York City public school, will provide facilities for four local arts organizations. Berke is transforming two buildings into 21c Museum Hotels, including a 1913 McKim, Mead & White bank in Lexington, Kentucky, and a 1917 Ford assembly plant designed by Albert Kahn, in Oklahoma City.

Kent Bloomer, professor (adjunct), designed, fabricated, and installed two large urban ornaments (called "Gateway Wings") on the refurbished New York Avenue Bridge, near Union Station in Washington, D.C., in November 2013. The foliated monumental arches, each fifty-two feet high, ceremoniously articulate the entrance to the rapidly developing "NOMA" (North of Massachusetts Avenue) neighborhood and are dramatically illuminated at night. Bloomer delivered the keynote lecture "The Façade in Architecture," at the seventh annual Philosophy and Arts Conference, at Stony Brook University, New York, in March 2014.

Karla Britton, lecturer, published essays in *Sacred Precincts: Non-Muslim Sites in Islamic Societies* (edited by Mohammad Gharipour, published by Brill Press) and *Transcending Architecture* (edited by Julio Bermudez, published by Catholic University Press). This spring she lectured at the University of Applied Arts, in Vienna, as part of the series "1945: Before & After." Britton discussed Canadian postwar sacred architecture at the University of Toronto and at the annual meeting for the Society of Architectural Historians, held in Austin. In 2014-15, she will serve on the committee for the Spiro Kostof Book Award, of the Society of Architectural Historians.

Brennan Buck, critic in architecture, of Freeland Buck Architects, lectured at Syracuse University, the University of Pennsylvania, City College of New York, and Stanford University this spring. His paper "Who's Afraid of Fabrication?" was included in the "Fabricate 2014" conference, at the ETH in Zurich. Together with his partner, David Freeland, Buck will moderate the session "Architecture's Complexity Complex" at the ACSA's 103rd annual meeting. Their project "Flight Patterns," a forty eight inch-square box kite, was included in *Possible Mediums,* an exhibition at Ohio State University in the spring. Freeland Buck has begun construction on its "Second House," in Culver City, Los Angeles, and is currently designing commercial projects in Miami and Kuwait City.

Trattie Davies (BA '94, MArch '04), critic in architecture, with her firm, Davies Tang & Toews, recently completed a series of projects for the PARC Foundation, including a new Camp Center housing a welcome center and small residence for the Rangeley Lakes Heritage Trust, in Oquossac, Maine, for which the firm did the master plan; preliminary studies for a small urban infill park in Memphis, Tennessee; and the Hudson Linear Park, a four-block-long green corridor connecting the main downtown thoroughfare to an adjacent residential neighborhood in Hudson, New York. The firm also has under construction an artist's studio, a production space, a gallery, a home/guest home in Chester, New Jersey, as well as several residential projects in New York City.

Peggy Deamer, professor, contributed to the catalog of *OfficeUS,* the American entry in the 2014 Venice Biennale. The Architecture Lobby, the activist group that she coordinates, performed a reading of its "10 Demands" for a better-paid and more humane architectural profession. The piece was also performed at the Chicago AIA National Convention. In July the group held an event at the Ron Feldman Gallery, in New York, in conjunction with the group exhibition *Labor Intensive*. In the summer, Deamer was a visiting scholar at Unitec, in Auckland, New Zealand, and gave a lecture at Victoria University, in Wellington.

Peter de Bretteville, (BA '63, MArch '68) critic in architecture, taught a second year advanced master studio class at Hong Kong University while on leave in the fall of 2013. The master class focused on the design of a 10,000-square-meter Inventor Lab before embarking on their final thesis projects the following semester.

Keller Easterling, professor, will have the book *Extrastatecraft: The Powers of Infrastructure Space* released by Verso in the fall. *Subtraction,* part of Sternberg Press's "Critical Spatial Practice" series, was launched in New York City and Berlin in the spring. For this year's Venice Biennale, Easterling was asked to research, write about, and co-curate an exhibition on the topic of "the floor" in the installation *Elements of Architecture,* in the Arsenale. She also contributed the essay "The Management" to the U.S. Pavilion catalog. In May, Easterling exhibited material in the *Letters to the Mayor* exhibition, at Storefront for Art and Architecture, in New York City. This spring, she lectured at Lighthouse, in Brighton, England; the CCA in San Francisco, the Architecture Association, the Van Alen Institute, e-flux, University of Minnesota, Aalto University, in Helsinki, the New School, Kent State, NJIT, World Policy Institute, ThinkSpace in Zagreb, and Kunstwerke Gallery in Berlin, and she delivered a keynote at the EDRA conference, in New Orleans.

Alex Felson, assistant professor and director of the Urban Ecology and Design Lab, was a member of David Waggonner ('75) and Alan Plattus's Rebuild by Design team, an initiative of the Hurricane Sandy Task Force and HUD to develop approaches to increase coastal resilience. The Ecological Society of America invited Felson to organize the Earth Stewardship collaboration with multiple agencies and AECOM, along the American River Parkway in Sacramento. He is working with the Atlanta Beltline Initiative and Emory University on a large-scale pollination project and remains the principal investigator on the NYC Million Trees project. Felson has co-authored several articles, including "Constructing Native Urban Forests as Experiments to Evaluate Resilience" and "Better Data for Urban Greening." He was also a co-organizer of the Yale Urban Ecosystem Service Symposium "New Tools to Guide Ecosystem Management in an Urbanizing World." Felson lectured at Cornell University, the Connecticut Bar Association, the South Central Regional Council of Governments of Connecticut, and MIT.

Martin Finio, critic in architecture, and his partner, Taryn Christoff, received an award from the American Academy of Arts and Letters, which hosted an exhibition of their work in June. The firm's current projects include a three-story glass-and-wood preschool facility in Williamsburg, Brooklyn, and private homes on Shelter Island and in the Berkshire Mountains.

Mark Foster Gage ('01), associate professor, and his New York–based firm, Mark Foster Gage Architects, is currently designing a performance-arts studio building at Bard College, a new retail environment for Two Hustlers in Tribeca, ongoing projects for the Diesel fashion company including a retail space in Williamsburg, Brooklyn, , and a 100-acre park with an observation tower in Knoxville Tennessee. Gage recently presented his interactive work for Intel and Google in a lecture and panel discussion at the 2014 Venice Biennale of Architecture, and in October he will deliver the 2014 Michael Mormor keynote lecture at the AAO in Chicago.

Steven Harris, professor (adjunct), with his firm, Steven Harris Architects, recently completed renovations of several floors of Barneys shops in New York City and Beverly Hills and is currently designing the new flagship in downtown Manhattan. His firm is also restoring the Edward Durell Stone A. Conger Goodyear House, on Long Island, and renovating a Greenwich Village townhouse, designed by Paul Rudolph in the 1980s. The firm recently finished the restoration and renovation of a fifteenth-century tower on the Croatian coast and is completing projects in Pune, India, and Taipei. Steven Harris Architects has been featured *Architectural Digest* and *New York* magazine.

Ariane Lourie Harrison, critic in architecture, and Harrison Atelier cofounder Seth Harrison presented the firm's work at the Van Alen Institute's "The Imprint of the City" conference and at Harvard's Mellon School of Theater and Performance Research. In May, the firm's installation *Veal* (2013) was shown in the "Open Studios" at the Morgan Fine Arts Building, in Greenpoint, Brooklyn. Lourie Harrison contributed a letter and a proposal for a hydro-fracking remediation center to the Storefront for Art and Architecture's *Letters to the Mayor* spring exhibition. The firm is currently completing its first built project, a pavilion for Architecture OMI's landscape in Ghent, New York. An app designed by Proxy Design will record the firm's new performance "Species Niches."

Dolores Hayden, professor, republished the essay "Urban Landscape History: The Sense of Place and the Politics of Space" (excerpted from her book *The Power of Place*) in *The People, Place, and Space Reader* (edited by Jen Jack Gieseking and William Mangold, published by Routledge). Her writing has recently appeared in *Raritan Quarterly Review, Architrave, Poetry, Pidgin,* and *Theodate*.

M. J. Long ('64), of London-based Long and Kentish, received a RIBA National Award and a place on the Stirling Prize list for Porthmeor Studios, in St. Ives, Cornwall, that combines fishermen's workshops and painting studios in former net lofts once used by Ben Nicholson and Patrick Heron.

Ed Mitchell, associate professor (adjunct) is working on a house in New Milford, Connecticut, and a small village complex of six houses, a nursery school, a library, art studios, and gardens in rural Vermont. This past spring, he lectured at MIT's program for Urban Design and Planning.

Joeb Moore, (MED '91) critic in architecture, will give lectures at Clemson University and University of Texas Austin this coming October. In January Moore's Spiral House was shown at the International Biennial of Architecture in Buenos Aires as part of *The City and the World* exhibition, organized by the Chicago Athenaeum and the European Center of Architecture, Art, Design, and Urban Studies. The project was a recipient of the Athenaeum's annual American Architecture Award. This spring Moore served as a juror for the AIA New York Design Awards in Interior Architecture and was named to the board of directors at the Cultural Landscape Foundation, in Washington, D.C., whose mission is to support historic landscapes and heritage.

Eeva-Liisa Pelkonen (MED '94), associate professor, is a consultant for an Alvar Aalto retrospective that will open at the Vitra Design Museum in September and is contributing two catalog essays. She gave the talks "Alvar Aalto and the Geopolitics of Architecture," at the Vienna School of Applied Arts, and "(Post-)modern Morphologies," at the EAHN conference, in Turin. Recent essays

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1. Studio SUMO, Josai International University (JIU) International House, Togane, Chiba-ken, Japan, 2014.
2. Deborah Berke & Partners, 122 Community Arts Center, East Village, New York, 2014.
3. Kent Bloomer Studio, *Gateway Wings*, Washington, D.C., 2013.
4. Alex Felson, Seaside Village Workday, Bridgeport, Connecticut, 2014.
5. Mark Gage, rendering of new arts studio Bard College, New York, 2014.
6. Harrison Atelier, Pavilion and Performance at Architecture OMI, Ghent, New York, 2014.
7. Steven Harris Architects, Atelier at 7 Harrison, Tribeca, New York, 2014.
8. Joeb Moore + Partners LLC, Sullivan Office Project, New York, NY, 2013.
9. Joel Sanders Architects, Xi'An Spa and Villa Hotel, Xian, China, 2013–2016.

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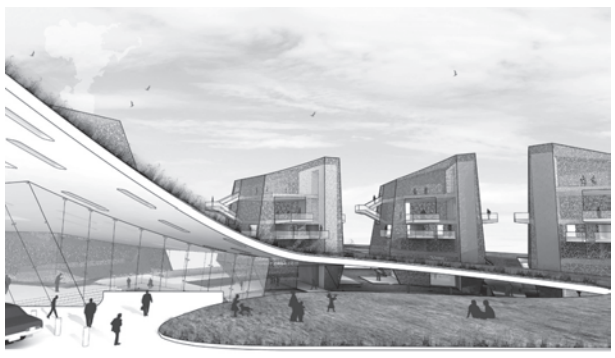

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include "Helsinki-Warsaw, c. 1960," in *Team X East: Revisionist Architecture in Real Existing Modernism* (edited by Lukasz Stanek) and "Preserving Aalto to Death," in *Finnish Architectural Review* (May 2014).

Nina Rappaport, publications director, was invited to display a condensed version of her *Vertical Urban Factory* project at the Museum of Architecture in London's King's Cross Filling Station this summer. In the fall she will open another version of her show in the Falchi Building, in Long Island City, Queens, New York. She was a collaborator with Open House New York on the programs and tours for "Making It Here," and she was on the exhibition committee for the Brooklyn Navy Yard's exhibit *Making It in NYC*. Rappaport is on the program committee of the Design Trust for Public Space's Energetic City project.

Elihu Rubin (BA '00), assistant professor, worked with students in his graduate seminar "Urban Research and Representation" to create "Interactive Crown Street," a pop-up urban research field office, set up in May in an unused storefront. Students displayed a variety of projects, from cognitive maps to soundscapes, and all participants contributed to a "Crown Street Collective Memory Palimpsest" on a thirty five-foot-long image of the street. With his undergraduate seminar, Rubin launched "A People's Guide to Infrastructure in New Haven" (infrastructurenewhaven.commons.yale.edu), a publicly accessible site that features texts written by students on the themes of transportation, water and waste, energy, parks and public space, and telecommunications.

Joel Sanders, professor adjunct, and his firm, JSA, received awards from the 2014 ALA/IIDA Library Interior Design Awards and the 2013 Interior Design Best of Year Awards for their Education Commons at the University of Pennsylvania. This spring, four JSA projects for innovative hotels were featured in the exhibition *Moving Visual Sense: Movement, New Scenario,* at the Seoul National University Museum of Art. The Kyle Residence was featured in the 2013 *Cut 'n Paste* exhibition, a mini historical survey of modern architectural collage at the Museum of Modern Art, New York City. JSA's design for the Xi'an Spa and Villa Hotel, in China, and the Youth Development Center, in Buenaventura, Colombia, were featured in *Interior Design* magazine's "Big Ideas" issue, in March. Sanders lectured at the University of Illinois at Urbana-Champaign, the Harbin Institute of Technology, and Tongji University, in China, as well as the Tecnológico de Monterrey, in Mexico. He was also keynote speaker for the third Jinfeng Scholar Forum, in China.

Robert A. M. Stern ('65) was honored with the American Academy in Rome's Centennial Medal and the National Arts Club's Medal of Honor for Achievement in Architecture; he received an Honorary Doctorate of Humane Letters from Drexel University. In July he presented the lecture "Reinvigorating the Modern City" at the China Academy of Art in Hangzhou, China, and introduced his firm's design for a mixed-use residential neighborhood in Chongqing to be developed by Vanke. In the fall of 2014, his firm will dedicate new buildings including the Westport / Weston YMCA in Connecticut; Immanuel Chapel at Virginia Theological Seminary in Alexandria; and One Horizon Center, a twenty-five-story office building in Gurgaon, India. Dean Stern will continue his series of lectures in conjunction with the publication of his *Paradise Planned: The Garden Suburb and the Modern City* with talks at the National Building Museum in Washington, D.C.; the Colony Club in New York; and at the AIA Custom Residential Architects Network symposium "The Architecture of Influence" in Charleston, South Carolina. The monograph *Robert A.M. Stern Architects: Buildings and Projects 2010-2014*—the seventh in a series—will appear in December.

Carter Wiseman (BA '68), lecturer, published *Writing Architecture: A Practical Guide to Clear Communication about the Built Environment* (Trinity University Press), based on his experience as architecture critic for *New York* magazine as well as on his Yale courses "Writing on Architecture" and "Case Studies in Modern Architectural Criticism," which he has taught since 2002. The book is intended for use by both practicing architects and students.

Michael Young, critic in architecture, with his practice, Young & Ayata, received the 2014 Architecture League of New York prize. This spring, he lectured at Syracuse University, Ohio State University, and the University of Innsbruck, Austria. He participated in a public lecture and conversation series at Princeton, "Forging Fabrication: Aesthetics." Young exhibited new work as part of the exhibition *Possible Mediums,* at the University of Michigan. He also presented a "TV show" on the changing nature of architectural mediation for the Storefront for Art and Architecture, for which he was also a presenter at the thirtieth anniversary conference. Young published essays in *INK,* edited by Michelle Fornabai; and *Architecture In-Formation,* edited by Pablo Lorenzo-Erioa.

Stanislaus von Moos, Vincent Scully Visiting Professor of Architectural History, recently co-edited with Sonja Hildebrand, the book, *Kunst Bau Zeit: Das Zurcher Universitatsgebaude von Karl Moser, 1914-2014*, published by Scheidegger and Spiess.

Tom Zook ('95), critic in architecture, and his firm began construction on the Hope House, in Kolkata, India, the legacy project of the Academy Award–winning documentary *Born into Brothels*. The 20,000-square-foot facility will provide a home and school for girls whose mothers are prostitutes in the city's red-light district. Zook's office also designed and oversaw construction of an evening legal-aid clinic, in Jérémie, Haiti, that operates as a nursing college by day.

Architecture Lobby: An Opinion

The Architecture Lobby is an organization of architectural workers advocating for the economic value of architecture within the general public and the discipline. From the bottom up, it resists the acceptance of low wages based on the long-held assumption that architectural firms make little profit. From the top down, it rejects thinking that marginal profits are acceptable for its professional expertise. A group I organized together with numerous others in July 2013, it is working to change the profession.

The need for such a group was sparked by a number of unrelated but conceptually resonant events. One was a notice in the hall of the Yale law school that listed "The Top 10 Family Friendly Law Firms." It was a shock to realize that no such notice would appear in an architecture school; not only would there be little interest (or ability) for architecture schools to compile this data, but students seemed disinterested in knowing such information. Subsequent conversations with the law student group that gathered the information indicated that law firms compete to get on the list to attract the best and the brightest. Another was the first meeting of the New York City-based group Who Builds Your Architecture? where the lack of concern by architects for the indentured workers constructing their buildings in the Emirates was the topic of discussion. Not only was it deeply dismaying that the "starchitects" were unwilling to use their cultural cachet to effect changes in the construction labor process, but it made apparent our own problematic relationship to labor, with unpaid internships, unregulated hours, and salaries that force difficult living conditions. And, finally, hearing an intelligent architect respond to a student's question regarding what she could expect from a career in architecture, saying, "Architecture is not a career; it is a calling!" set off yet another alarm. It was clear that we allow ourselves to be underpaid and professionally insecure by developing ideological techniques to make these a virtue. All of these signs pointed to the need for a conversation about the nature of architectural work and the causes for the profession's non-engagement in a labor discourse or new modes of profiting from a knowledge economy.

The Architecture Lobby has conducted a survey that goes beyond those of the AIA by including nonprofessional, non-AIA members and asking more pointed questions about work conditions and creative satisfaction in order to speak for the profession more holistically. It has written editorials to raise consciousness among architectural workers that they should expect more from their jobs and organized campaigns to alert both the profession and the public that architectural work goes beyond the delivery of a glamorous building and that its value-proposition should be reconsidered accordingly.

Yale nurtures many of the ideas behind the lobby's thinking. Many courses, including the Jim Vlock Building Project and Systems Integration, in both technology and pedagogy, encourage collaboration within systems thinking and help overcome the calling of individual genius. The student group Equality in Design has questioned the stereotypes of work that disempowers those interested in a work-life balance. We have professional practice courses that invite students to imagine a different value proposition for our discipline and to not merely accept what is handed to us by the NCARB, NAAB, and AIA. We have seminars calling for students to rethink standard office production. And there is a growing awareness among the faculty that all-nighters by our students plant the seed for devaluing—nay, feeling macho about—our overtime hours. These commitments promote a future practice that the Architecture Lobby wants to usher in.

—Peggy Deamer
Deamer is a professor at Yale and editor of Architecture and Capitalism: 1845 to the Present, 2013.

Rebuild by Design: Resilient Bridgeport

HUD and the President's Hurricane Sandy Taskforce initiated Rebuild by Design, a competition to promote resiliency in the region. The firm of Waggonner & Ball, participated in the competition in partnership with Yale University, ARCADIS, unabridged Architecture, Gulf Coast Community Design Center and over forty collaborators. Yale related participants included faculty members, Alex Felson and Alan Plattus and alumni, Carl Pucci (BA '73, MArch '76), and Donald Watson (BA '59, BArch '62, MED '69). Focusing on Bridgeport, Connecticut, WB team's proposal combines natural and fortified solutions to facilitate more resilient forms of inhabitation in the places most at risk from severe storms. It asserts that living and working along Connecticut's coastline, estuaries and waterways is not only necessary but also beneficial in an incremental and integrative approach that strengthens the area.

Working from the regional perspective four zones were selected for more detailed investigation, with projects including a multifunctional protective alignment for the South End and Black Rock, a living shoreline with constructed breakwaters and wetlands, an offshore CSO outfall park with onshore mitigation, elevated streets and smart infrastructure corridors, a bridge with integrated surge protection, a downtown loop and flood wall with waterside promenade, a restored Congress Street Bridge, a park-to-park park along the Lower Pequonnock, an aquaculture and fin-fish development study, a relieved flood plain, and day lit Pequonnock near US 1 with commercial development re-oriented to the water's edge. Planning and design will continue this fall.

—David Waggonner ('75)
Waggoneer is principal of New Orleans-based Waggonner Ball

Alumni News

Alumni News reports on recent projects by graduates of the school. If you are an alumnus, please send your current news to:

Constructs, Yale School of Architecture
180 York Street, New Haven, CT 06511
By email: constructs@yale.edu

1960s

Stanley Tigerman (B.Arch ’60, MArch ’61) has architectural models of his projects included in the exhibition *Architecture to Scale: Stanley Tigerman and Zago Architecture,* at the Art Institute of Chicago from June 26 to September 14. The show pairs the sophistication of Tigerman’s models with the monumental scale of Zago’s 2008 film series *XYT: Detroit Streets*.

Charles Leider (M. Planning ’64) received the 2014 Merit Award for his work in preserving the historic cultural landscapes of Oklahoma, from the Oklahoma State Historic Preservation Office on June 5, at the Historic Preservation Conference, on the Norman campus of the University of Oklahoma.

Michael A. Bignell (MED ’69) had his paintings displayed at the Philadelphia Water Color Society’s 113th international juried exhibition, last September through October.

1970s

Barry Svigals (BA ’71, MArch ’76) of the New Haven-based Svigals + Partners is working on the new design for the Sandy Hook Elementary School in Connecticut and was featured in the March 20, 2014 *New York Times*.

Sara Caples (’74) and Eduardo Jefferson (’73), of New York City-based Caples Jefferson Architects, had the Mies Crown Hall Americas Prize place their Weeksville Heritage Center, in Brooklyn, among the 265 most important buildings in the Americas in the last ten years. The project also won the 2014 Building Brooklyn Award in the Civic/Institutional category and the Municipal Society Masters award.

Hillary Brown (’74) calls for smarter and more holistic decisions in the revamping of American infrastructure in the new book *Next Generation Infrastructure: Principles for Post-Industrial Public Works,* published by Island Press in May 2014 (see page 19). She is the principal of the firm New Civic Works and a professor at the Spitzer School of Architecture at the City College of New York.

Jonathan Levi (BA ’76, MArch ’81), of Jonathan Levi Architects, saw the Wellington Elementary School, in Belmont, Massachusetts, win the Harleston Parker Medal, which is awarded each year to “the most beautiful piece of architecture” in greater Boston.

Louise Braverman (’77) exhibited the work of her New York City-based firm, Louise Braverman Architect, in two locations at the 2014 Venice Architecture Biennale (see page 16)—in the U.S. Pavilion and in the *Time Space Existence* exhibit, curated by Dutch non-profit Global Art Affairs Foundation. She recently served as a juror for the 2014 AIA National Housing Awards and has been invited to give the keynote at the 2014 Nigerian Institute of Architects Convention, to be held in Llorin, Nigeria.

Kathleen Dunne (MED ’78), of consulting structural engineer firm Dunne & Markis, saw her firm win a “Best Projects of 2013” ENR Merit Award for “outstanding design and construction” as the structural engineers for the Coney Island Aquarium Aquatheater.

1980s

Turan Duda (’80), with Jeffrey Paine, his partner in Duda/Paine Architects, published the monograph *Individual to Collective* (ORO Editions, 2013), edited by W. E. Edmunds with a foreword by Cesar Pelli. The book marks fifteen years of practice since the two met while working at Pelli Clarke Pelli.

Randy Hafer (’81), of High Plains Architects, in Billings, Montana, had three of his projects receive LEED Platinum certification—the Tracy Lofts, the Boys & Girls Club of Carbon County, and the National Outdoor Leadership School Wyss Wilderness Medicine Campus—bringing to six the total of completed LEED Platinum projects for High Plains Architects. Hafer became one of only a handful of Montana architects to become inducted into in AIA’s College of Fellows’ sixty-year history.

Peter B. MacKeith (’85) was recently appointed dean of the Fay Jones School of Architecture, at the University of Arkansas, having previously been associate dean at the Sam Fox School, at Washington University, in St. Louis. He was formerly director of the Master of Architecture International Program at the Aalto University and is the author of books on Finnish architecture and honorary consul for Finland, in Missouri. In February, he was honored by the president of Finland with the insignia of Knight, First Class, of the Order of the Lion of Finland. *SOM Journal 9 / On Leadership and Authorship,* edited by MacKeith, was published by Hatje Cantz in August; *Lahdelma-Mahlamäki: Works,* a monograph on the contemporary Finnish design partnership by MacKeith, will be published by The Finnish Building Information Center, in October.

Duncan Stroik (’87), of Duncan Stroik Architects, received the 2014 Palladio Award from *Traditional Building & Period Homes* magazine for his design of the Cathedral of Saint Paul Organ Case in St. Paul, Minnesota, and the 2014 North American Copper in Architecture Award for his work on the Basilica of the National Shrine of Mary Help of Christians at Holy Hill, Erin Wisconsin.

Andrew Berman (BA ’84, MArch ’88), principal of his eponymous firm in New York City, completed the Stapleton Branch Library for the New York Public Library, in Staten Island, in 2013. The project won the 2014 AIA New York chapter’s Merit Award. He was elevated to the AIA College of Fellows, and he finished a reading-room renovation for the Washington Heights Children’s Library.

Steve Fritzinger (’88) was promoted to senior associate at Pickard Chilton. In addition to his current internal management responsibilities, he is currently the project manager for the ExxonMobil campus in Houston, a state-of-the-art, 385-acre project designed to accommodate 10,000 employees.

Claire Weisz (’89), Mark Yoes (’90), and Layng Pew (BA ’84, MArch ’89) of New York-based WXY, were a part of the national dialogue on resiliency with their project Blue Dunes that was named as a finalist in the first international HUD Rebuild by Design competition. WXY’s East River Blueway, which received both a 2014 national AIA Honor Award and the AIANY Best in State Award was the result of year-long public consultation using a cross-platform engagement strategy to protect critical infrastructure, attenuate storm surge, and help manage frequent storm water issues. Weisz gave a keynote at AIA COD, City Age’s Western Cities conference and has been named design curator of “Reimagining the Civic Commons” a multi city initiative with the Municipal Art Society, funded by the Knight Foundation.

1990s

Marc L’Italien (’90), a design principal with EHDD in San Francisco, was the lead designer of the new home for the Exploratorium at Pier 15, along San Francisco’s Embarcadero, which opened in April 2013 and was featured in the June issue of *Architect*. EHDD has recently won commissions to design a new academic marine-science lab and research aquarium for the University of Otago, in New Zealand, and to renovate and expand the Seattle Aquarium, below Pike Place Fish Market, at the center of Field Operations’ new Central Waterfront project.

Morgan Hare (’92) and Marc Turkel (BA ’86, MArch ’92), of New York City-based, Leroy Street Studio, won the 2013 Park Commission Design Award for their renovation of the Ally Pond Environmental Center. Nestled at the edge of Alley Pond Park and incorporating the latest in environmental innovations, the center each year serves 50,000 New York City school children with classes and walks along wetland trails.

Nora Demeter (’93) has been a partner in the firm of Zoboki-Demeter and Associates Architects, based in Budapest, Hungary, for over fifteen years. She has designed numerous award-winning cultural and commercial buildings, including the National (Opera) Theater, Palace of the Arts (won in a 2000 competition), Gedeon Richter Ltd. Chemical Research and Office Building, and the Valeo factory. The firm has also worked on numerous master plans in Hungary, from those for Budapest to smaller towns.

Celia Imrey (’93) has merged her firm, Imrey Studio, with architect Anthony Fieldman to form RAFT Architects, based in Tribeca, New York. Imrey’s design for the Edgartown Public Library is now under construction, and this summer, she lectured on her work at the Hermitage Museum, in St. Petersburg, Russia. RAFT is currently designing The Arab Thought Foundation, a mixed use building in Jeddah.

Alex Barrett (’97), David Hecht (BA ’00, MArch ’05), and James Andrachuk (’12), of Barrett Design & Development, completed the residential project 440 Atlantic, in Brooklyn’s Boerum Hill. Hecht recently started the New Orleans-based real estate development and architecture firm, Formwork Development, and has relocated there.

Devin O’Neill (’99) and Faith Rose (’98), of New York City-based O’Neill Rose Architects, saw their West Side Townhouse project win an AIA Merit Design Award for 2014; it was featured in the April issue of *New York Cottages and Gardens* magazine.

2000s

Dominique Davison (’00), founding principal of DRAW Architecture + Urban Design, won the support of the Mozilla Foundation for her project PlanIT Impact, a visually rich resource-impact tool for the planning, building, and construction industry that links locally available geospatial data with a specific development project’s location.

Cynthia Barton (’02) works as a disaster housing recovery plan manager in New York City’s Office of Emergency Management. Her office has just completed an urban postdisaster housing prototype, which it is opening in Brooklyn as a public gallery in June.

Ma Yansong (’02) of Beijing based MAD Architects will work with Studio Gang Architects to design George Lucas’s Museum for Narrative Art, planned for a seventeen-acre parcel on Chicago’s lakefront. Lucas announced the architects in July, citing MAD’s “innovative approach to design and the firm’s philosophy of connecting urban spaces to natural landscapes.” The two architects were an unepected choice after the traditional design for Lucas’s rejected proposal for a site in San Francisco. Initial designs are expected before the end of the year.

Robert McClure (’03) became an associate at Pickard Chilton, where he has been the director of recruitment for the past twelve years. He is currently the team leader for a one-million-square-foot high-rise office development in Arlington, Virginia, and the office tower and retail component of The Well, a two-million-square-foot, mixed-use development in Toronto.

Na Wei (’04) and Chris Mahoney (’05) celebrated the fifth anniversary of their firm, Elevation Workshop/ELEV Beijing. They have participated in more than sixty projects of various scales, from architectural design, urban planning, and interior design to art installations and product design.

Jessica Niles DeHoff (’04) co-authored a new book, *We Own the City*. Charting rising trends in “guerrilla urbanism” across the globe, it was published in May 2014 by the University of Hong Kong and the CitiesFoundation. Jessica and her husband, John, have recently moved from Hong Kong to Phnom Penh, Cambodia.

Spencer Luckey (’04) completed the “Neural Climber,” his most ambitious climbable sculpture to date, in June at the Franklin Institute in Philadelphia. Over the past year, his firm, Luckey, which specializes in making climbable sculptures, moved to a new space in New Haven and completed three major installations, in Indianapolis, South Korea, and Switzerland.

Jennifer Newsom Carruthers (BA ’01, MArch ’05) and Thomas Carruthers (’05), partners at the Vancover-based Dream the Combine, collaborated with Amanat

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1. Kathleen Dunne, Dunne & Markis, structural engineers, Coney Island Aquarium Aquatheater, 2013.
2. NYC Office of Emergency Management, disaster-housing prototype, Brooklyn, New York, 2014.
3. Jonathan Levi Architects, Wellington Elementary School, Belmont, Massachusetts, 2014.
4. Spencer Luckey, Neural Climber, Franklin Institute, Philadelphia, 2014.
5. Randy Hafer, Highlands Architects, National Outdoor Leadership School Wyss Wilderness Medicine Campus, Montana, 2014.
6. Book cover of Duda/Paine Architects, *Individual To Collective,* Oro Editions, 2013.
7. Svigals + Partners, design for new Sandy Hook Elementary School, Connecticut, 2014.
8. Stanley Tigerman model, featured in the exhibition, *Architecture to Scale: Stanley Tigerman and Zago Architecture,* Art Institute of Chicago, 2014.

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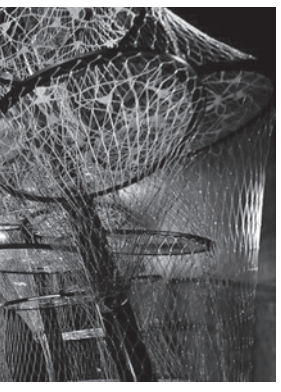

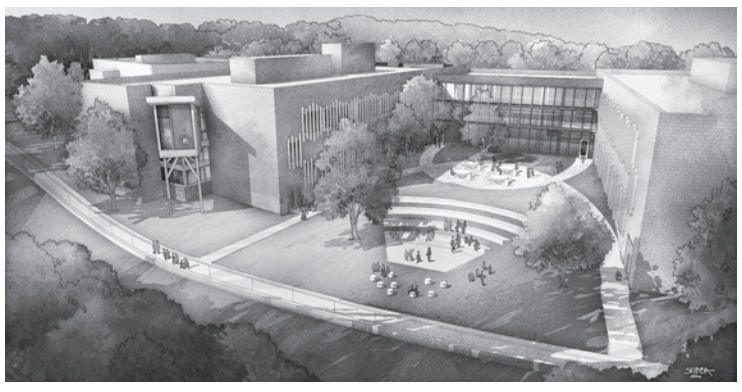

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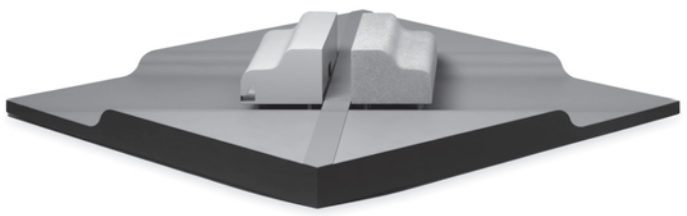

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Architect on the design of a forty-story residential tower in Seattle. Their projects include work in progress for an abandoned skyway pedestrian bridge in Minneapolis, a proposal for a video installation in New York City's subway system, and a 4,000-pound steel sculpture for unused railroad tracks commissioned by Northern Spark, an annual arts festival, in St. Paul, Minnesota.

Brett Spearman ('05) became an associate at Pickard Chilton. He is currently the team leader for the one-million-square-foot global headquarters for BHP Billiton, currently under construction, and the corporate headquarters expansion for an international energy corporation, both in Houston.

Katharine Gillis ('10) has been made an associate at Robert A. M. Stern Architects.

Miriam Peterson ('10) and Nathan Rich ('10) and their New York City-based firm, Peterson Rich Office (PRO), received fellowship from the Institute for Public Architecture to study Mayor Bill DeBlasio's ten-year plan for affordable housing. Their project, *9x18,* investigates parking issues and affordable housing to find ways to change the building code and parking requirements, especially for underused parking on NYCHA campuses.

Chat Travieso ('10) in July had an opening of his project in Paths to Pier 42, a pop-up park on the East River waterfront on the Lower East Side. It is his second year working on Pier 42, both times collaborating with Yeju Choi to create a temporary art installation as part of the park.

Erik Herrmann ('12) won an Alexander von Humboldt Foundation Chancellor's Fellowship, enabling him to live in Germany for a year while conducting research with professor Achim Menges at the Institute for Computational Design, in Stuttgart. His project, "Unpacking the Black Box: Computational Thinking and the Future of the Built Environment," will include case studies from the history of computational design in Germany and consider the evolving roles of architects, scientists, engineers, and planners working in computationally mediated design environments.

Susan Surface ('12) curated the exhibit MORE-THAN-ONE-AND-LESS-THAN-TWO in May at Gordilloscudder, in Bushwick, Brooklyn. She works as a research coordinator at Columbia GSAPP's C-Lab and as an architectural designer at Super-Interesting, with Kian Goh ('99). Her next exhibit, organized under the curatorial project GENERIS, opens in October.

Yale Day of Service

On May 10, thirty alumni from the School of Architecture took part in the Yale Alumni Association's "Global Day of Service," a yearly event focused on giving back through community service worldwide. The architecture alumni, representing a thirty-two-year span of graduating classes, gathered in New York City, Washington, D.C., and Boston for day-long charrettes focused on design issues useful to local chapters of Habitat for Humanity.

In Boston, eight alumni had a "Build Day," working alongside formerly homeless families on new condo-style homes in a former convent. Six participants in D.C. had a charrette focused on two new land-development projects. In New York City, sixteen people gathered to "redline" twelve Habitat for Humanity contractor-designed prototypes for replacement housing in Monmouth County, New Jersey, an area heavily damaged during Hurricane Sandy. Volunteers were excited by the opportunity to use their design skills in ways that were of immediate and high-level service to Habitat. The social and environmental implications of the tasks led to in-depth group discussions that slipped easily into productive collaboration, given the participants' shared background of Yale and the crucible of the building project.

Habitat for Humanity was thrilled with the results of the three-city, three-charrette effort, and the organizers—Dale Cohen ('89) in New York City; Anne Gatling Haynes ('94) and Carol Burns (BA '80, BArch '83) in Boston; Tracy Revis ('87) and Cliff Elmore ('90) in Washington, D.C.—look forward to expanding the program to other cities for Yale's 2015 "Day of Service."

Yale Women in Architecture Panel

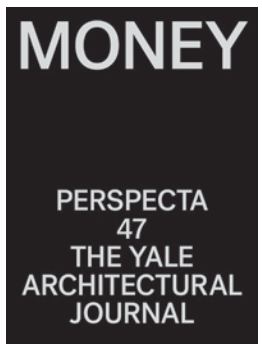
On April 4, the student-run group Equality in Design at Yale invited Yale Women in Architecture (YWA) to host the panel discussion "Women in Practice" at the school on the fourth-floor "pit." The event was the result of conversations between Dean Robert A. M. Stern and members of YWA about engaging students regarding issues about independent firms run by women. Stern agreed that female alumni with their own practices should engage more with students, serving as mentors and stewards of continuing professional engagement in the practice of architecture.

Celia Imrey ('93), of Imrey Studio, moderated the conversation, with presentations by five women alumni: Louise Braverman ('77), of Braverman Architects; Kimberly Brown ('99), of Strata Architects; Laura Pirie ('89), of Pirie Architects; Robin Osler ('90), of EOA/Emslie Osler; Doreen Adengo ('05), of Adengo Architects; and Gabrielle Brainard (BA '01, MArch'07), of SHoP Architects. The participants discussed their work and various decisions made in their practices as well as changes they made to improve their roles in the office. The event succeeded in bringing valuable new knowledge and shared experiences to the students.

A second panel discussion is being scheduled for the fall in New York, and younger alumni and students are all welcome.

Brewer in Bequia

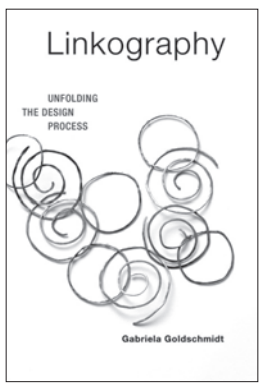
Charles Brewer ('49), former Yale associate professor and former chairman of the Ohio State University School of Architecture, received the 2014 Pinnacle Award for his book *Moonhole: The rise and fall of an island utopia*. The book describes the development of nineteen houses built between 1965 to 1985, into and out of rock on the island of Bequia by the eccentric Tom Johnston. Brewer, who reconstructed his own house there over six years, has been redesigning and preserving numerous other houses, many from total ruin. The amoeba-like houses are similar to cliff dwellings that follow the contours of the land and have no doors or windows. Public hiking paths also cut through the houses. Brewer has also been assisting the community to rebuild the storm-damaged fishermen's village, Paget Farm, finding grants for the construction of a boat basin with a new dock and fuel depot and securing a new land-lease from the government.



Perspecta 47: Money

Recently released is the forty-seventh edition of *Perspecta*. The journal is edited by James Andrachuk ('12), Christos C. Bolos ('12), Avi Forman ('12), and Marcus A. Hooks ('12). Money plays a paradoxical role in the creation of architecture. Formless itself, money is a fundamental form giver. At all scales and across the ages, architecture is a product of the financial environment in which it is conceived, for better or worse. Yet despite its ubiquity, money is often disregarded as a factor in conceptual design and persistently avoided by architectural academia as a serious field of inquiry. It is time to break these habits. In the contemporary world in which economies are increasingly connected, architects must creatively harness the financial logics behind architecture in order to contribute meaningfully to the development of the built environment.

This issue of *Perspecta* examines the ways in which money intersects with architectural discourse, design practice, and urban form in order to encourage a productive relationship between money and the discipline. Contributions from a diverse group of scholars, practitioners, and artists create a dialogue about money's ambiguous position in architecture, reflecting on topics that range from the aesthetics of austerity to the underwriting of large-scale art projects to the economic implications of building information modeling.



The book *Linkography: Unfolding the Design Process* by Gabriela Goldschmidt ('70) was published by MIT Press this year. It presents the author's method of notation and analysis for the design process, showing how designers develop ideas to make something. She uses cognitive psychology to demonstrate the logic of the creative process along with protocol analysis. Her theory is that ideas develop and change in smaller steps and then transform into networks, which she has diagrammed in a particular system. Goldschmidt's work has been influential in the field of design thinking.

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

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Yale School
of Architecture

Fall 2014
Events Calendar

Lectures

All lectures begin at 6:30 p.m. in Hastings Hall (basement floor) of Paul Rudolph Hall, 180 York Street. Doors open to the general public at 6:15 p.m.

August 28
FAT (SAM JACOB, CHARLES HOLLAND, SEAN GRIFFITHS)
Eero Saarinen
Visiting Professors
"Once More With Feeling"

September 4
LISA GRAY AND ALAN ORGANSCHI
Louis I. Kahn Visiting Assistant Professors
"Scarce Means Alternative Uses"

September 11
KAY BEA JONES
George Morris Woodruff, Class of 1857, Memorial Lecture
"Suspending Modernity: The Architecture of Franco Albini"

October 9
JUSTIN MCGUIRK
Brendan Gill Lecture
"Radical Cities: Across Latin America in Search of a New Architecture"

October 30
ANNABEL WHARTON
Vincent Scully Visiting Professor of Architectural History
"Manipulating Models"

November 6
TOD WILLIAMS AND BILLIE TSIEN
Davenport Visiting Professors
"A Deliberate Architecture"

November 13
GREGG PASQUARELLI
Myriam Bellazoug Memorial Lecture for *Perspecta* 47: *Money*
"Design Risk Design Reward"

November 20
JOHN PATKAU
Lord Norman Foster Visiting Professor
"Recent Work"

Exhibitions

The Architecture Gallery is located on the second floor of Paul Rudolph Hall, 180 York Street.

Exhibition hours:
Mon.–Fri.,
9:00 a.m.–5:00 p.m.
Sat.,
10:00 a.m.–5:00p.m.

August 25 to November 20
Infra Eco Logi Urbanism

Infra Eco Logi Urbanism was organized by RTVR principals Geoffrey Thun, Kathy Veliko and Colin Ripley.

The exhibition is supported by the Social Science and Humanities Research Council of Canada (SSHRC), Taubman College of Architecture + Urban Planning, the University of Michigan Office of Research, Rackham Graduate School at the University of Michigan, and The MI Group.

December 8, 2014 to May 1, 2015
Archeology of the Digital: Media and Machines

Archaeology of the Digital was organized by the Canadian Centre for Architecture, Montreal, Canada.

The CCA gratefully acknowledges the generous support of the Ministère de la Culture et des Communications, the Canada Council for the Arts, the Conseil des arts de Montréal, and the Graham Foundation for Advanced Studies in the Fine Arts. The presentation at Yale is sponsored in part by Elise Jaffe + Jeffrey Brown.

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