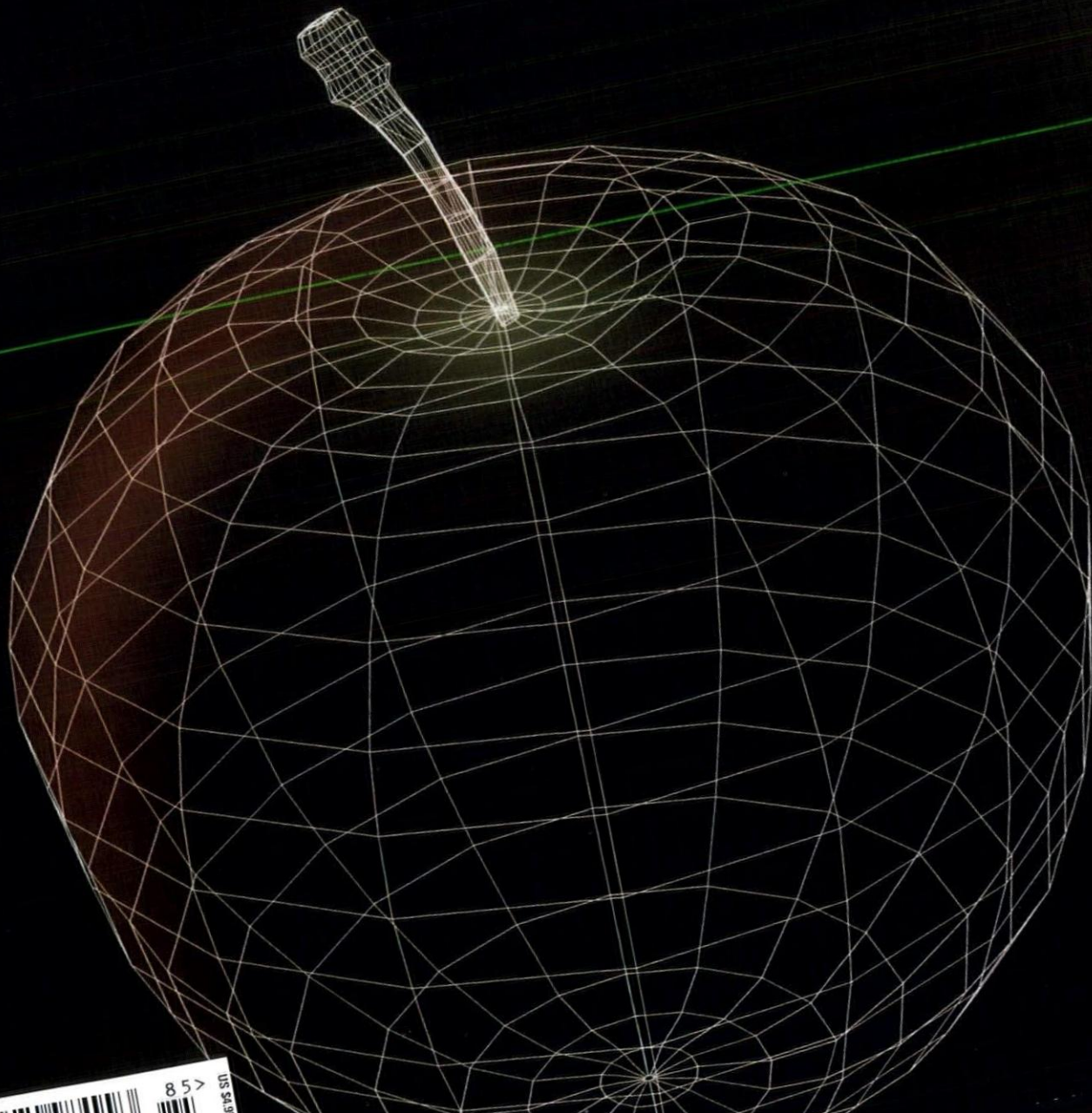


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September/October 2003

Education

ave a confession. For five years, I resisted doing this issue. "Education" regularly emerged on lists of possible themes, and just as regularly, I dodged and ducked usually by distracting our otherwise astute editorial board members with other tempting theme ideas. Why? I found most conversations about architectural education to be tiresome — the same old debates framed with the same old arguments, citing passions only among the same old players.

Sometimes procrastination pays off. The world of architectural education has shifted, and the atmosphere has cleared. Whether that means that fresh air has blown through or only that a new synthetic has been sprayed over the old mustiness remains to be seen. But the signs are encouraging.

First, many schools have wrung out the excesses of theory that so often provoked outrage and derision among practitioners only a decade ago. Theory seems to have found its place, lending a welcome intellectual grounding to the profession while coexisting far more comfortably with the practical and technical aspects of building. As several of our contributors note, many architects who were once known only for their "paper architecture" are now designing "real" buildings that force them to contend with the realities of codes, budgets, public review, materials, even liability. Academics themselves are questioning the wholesale appropriation of theoretical systems from other disciplines: the summer 2003 conference of the Association of Collegiate Schools of Architecture was devoted to this very topic.

Another change can be seen in the students themselves. For whatever reasons — thinkable tuitions and debt, the broad consumer culture, youthful idealism — students today are not the modest novitiates they once were. They are far more assertive, as demonstrated by the heightened visibility of the American Institute of Architecture Students (AIAS) and the emergence of ArchVoices (see page 39), a four-year old think-tank and website for architectural interns.

The profession, too, has changed, demonstrating greater leadership and invention in its approach to architectural education. Under the leadership of Boston architect Peter Steffian FAIA, the National Council of Architectural Registration Boards (NCARB) recently established the NCARB Prize for Creative Integration of Practice in Education in the Academy. Local firms are demonstrating initiative, too, including Cambridge Seven, which has a formal internship program with Rice and a program for German architectural exchange students sponsored by the University of Michigan, and Shepley Bulfinch Richardson and Abbott, where the Design Fellowship program offers students greater exposure to design work and to the firm's principals than typical internships provide. Even more innovative is the Moshe Safdie Associates Research Fellowship, which provides a one-year stipend to selected graduate students and young architects and offers designers the opportunity to conduct research in an office setting — thus moving the profession closer to the model of "teaching offices" that parallel teaching hospitals.

As the profession evolves, so will the schools. But the reverse has always been true, too. What is the real change in architectural education? Perhaps it's confidence — greater confidence among educators, students, and the schools themselves.

Elizabeth S. Padjen FAIA

Editor

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We invite story ideas that connect architecture to social, cultural, political, economic, or business trends. Editorial guidelines are posted at: www.architectureboston.com

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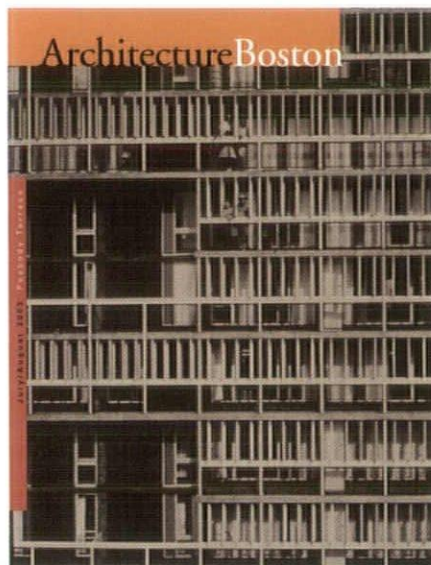
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Your fine issue on Peabody Terrace [July/August 2003] nicely crystallizes the debate over our continuing need to understand what constitutes an appropriate contemporary response to the context of our city and region. Although not without its problems, a strong case can still be made that Modernism is the best thing that has happened to the Boston area in the last hundred years. Drawing upon a strong native progressive tradition and working with an enlightened local intelligentsia, architecture Modernists from Aalto to Sert and their like-minded colleagues in research and academia catalyzed a new synthesis that enabled 21st-century Boston — beginning transformation of an academic enclave and its cultural hinterland into the cosmopolitan center that it has become today.

There has always been, however, a deep mistrust of the appearance of Modernism as something foreign and indifferent to the physical (and cultural, to some) realities of New England. In the same way that it is the idea of Peabody Terrace that so appeals to architects (as Lee Cott notes in "Why Architects Love Peabody Terrace"), it is precisely this idea — seen as representing an alien implant seeking to alter established patterns of living — that has fueled the hostility to Modernism outside the architectural community.

There is an irony in the underlying nostalgia that fuels your roundtable participants' celebration of the energy and spirit that brought Cambridge Modernism to its peak in the 1960s, for nostalgia is also at the foundation of much of the traditionalist argument against the hard logic of Modernism. However, memory can be a useful tool to revive and focus interest on important cultural issues that might otherwise be lost to history. Therefore, in acknowledging the significance of memory to both sides of our cultural debate, we can perhaps begin to use it intelligently, in open dialogue, to foster mutual understanding of these heretofore irreconcilable positions.

David N. Fixler AIA
President, DOCOMOMO/US —
New England
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Boston

The roundtable discussion of Peabody Terrace [Talking About a Revolution: Cambridge in the '60s," July/August 2003] recalled my earliest years in architecture. From the Midwest, the University of Chicago, and the Yale School of Architecture, I arrived in the Boston area and MIT in 1959, under the influence of Mies, Le Corbusier, and Louis Kahn. The Custom House Tower identified the Financial District and the monumental steel frame was rising in the Back Bay.

The Harvard Square architectural community is alive and full of ideals, creativity, and self-criticism, even into evenings at the Casablanca, after work on Fridays. As proposed designs and instruction began to emerge along the Charles River (Harvard, MIT, BU), we all felt that we were achieving a 20th-century response to a changing city and culture, always respecting and appreciating, but not imitating the past. Working with Ben Thompson, in the later '60s, we included Peabody Terrace as influences in understanding the forms, materials, and details appropriate to "our age." As we developed three stories of elderly and subsidized housing for the Cambridge Housing Authority, we knew the knowledge of community issues raised earlier, and even went high-rise on Gore Street.

The riverscape continues to change and the downtown grows higher, but I fear the search for the "right" has been lost in the pressure to be accepted. Let us hope that reminders, such as our Peabody Terrace issue, will give our active and younger designers pause, and a new impetus to seek and achieve the earlier heights.

Thomas Green FAIA
Boston

We were delighted to see the July/August issue of *ArchitectureBoston* devoted to Peabody Terrace. As noted in the Editor's Letter, the "invention, clarity and social spirit that made Peabody Terrace a landmark in American architecture" has, by its very familiarity to two generations of Bostonians and Cantabrigians, made its innovative character less striking. The commentary and insight of your roundtable participants ["Talking About a Revolution: Cambridge in the '60s"] were informed and appealing antidotes to this perception. We think it significant as well that members of the Los Angeles Chapter of the Society of Architectural Historians have selected Peabody Terrace as a "must see" on their forthcoming study tour of Modernist structures in the Boston area.

We are the organizers of the exhibition "Josep Lluís Sert: The Architect of Urban Design, 1953-1969," which will open on October 7, 2003 at the Harvard Design School. Peabody Terrace will be among the Sert commissions and projects highlighted, not only in the exhibition, but in the complementary symposium (October 26-27) organized by Hashim Sarkis of the GSD's Department of Urban Design. The exhibition and the symposium are open to the public and will, we hope, provide a fresh look at Sert's work as both a designer and an educator.

A companion exhibition, "Josep Lluís Sert: Architect to the Arts II" opens in mid-September at the Carpenter Center's Sert Gallery. Drawn from the collections of the GSD's Sert Archive and the Fogg Museum, this exhibition will offer a potentially revelatory insight into Sert's work, perhaps less familiar to local audiences. Beginning with the Pavilion of the Spanish Republic at the Paris International Exposition of 1937 (perhaps best known as the inaugural site for the exhibition of Picasso's "Guernica"), and including the Fondation Maeght in St.-Paul-de-Vence and Barcelona's Fundació Miró, these commissions are expressive not only of architectural design but of Sert's long-established friendships and collaborations with a number of significant figures in 20th-century art. Paintings and sculpture from Sert's personal collection, with archival material, will be included in this exhibition.

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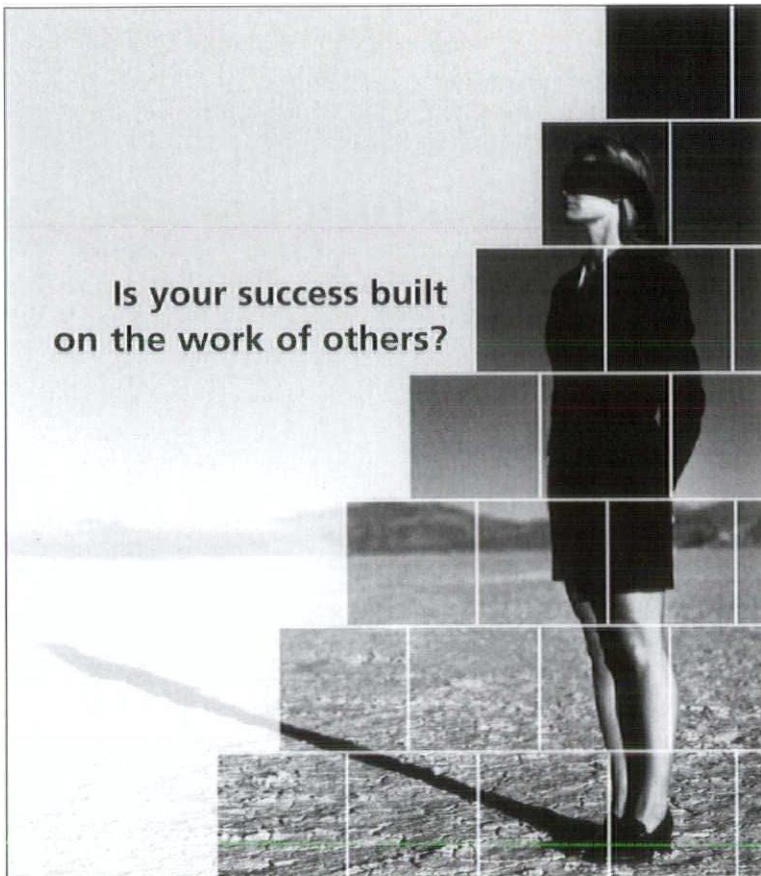
After reading with interest all the words about Peabody Terrace [July/August 2003], I am left with the opinion that if only architects like it and the public hates it, it is an architectural failure.

Who are architects designing for anyway?
The praise of their colleagues or the people who live in and around their buildings?

Hugh Stubbins FAIA
Cambridge, Massachusetts

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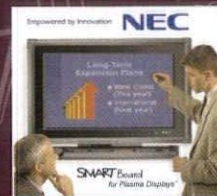
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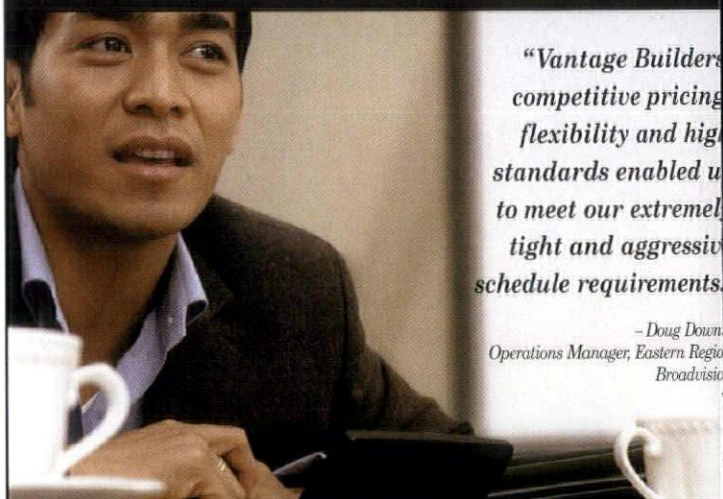
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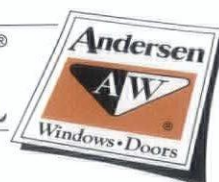
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Declaring Victory

Practicing and Teaching

Brian Healy AIA is the principal of Brian Healy Architects in Boston. He teaches architectural design at MIT and Yale University. He has also taught at the University of Pennsylvania, University of Virginia, University of Michigan, Penn State, University of Florida, Dartmouth, New Jersey Institute of Technology, and Rhode Island School of Design. He is president-elect of the Boston Society of Architects.

Andrea Leers FAIA is a principal of Leers Weinzapfel Associates in Boston. She is adjunct professor of architecture and urban design at the Harvard Graduate School of Design. She has taught at MIT, University of Virginia, University of Pennsylvania, Tokyo Institute of Technology, and Yale, where she was a member of the faculty for 10 years.

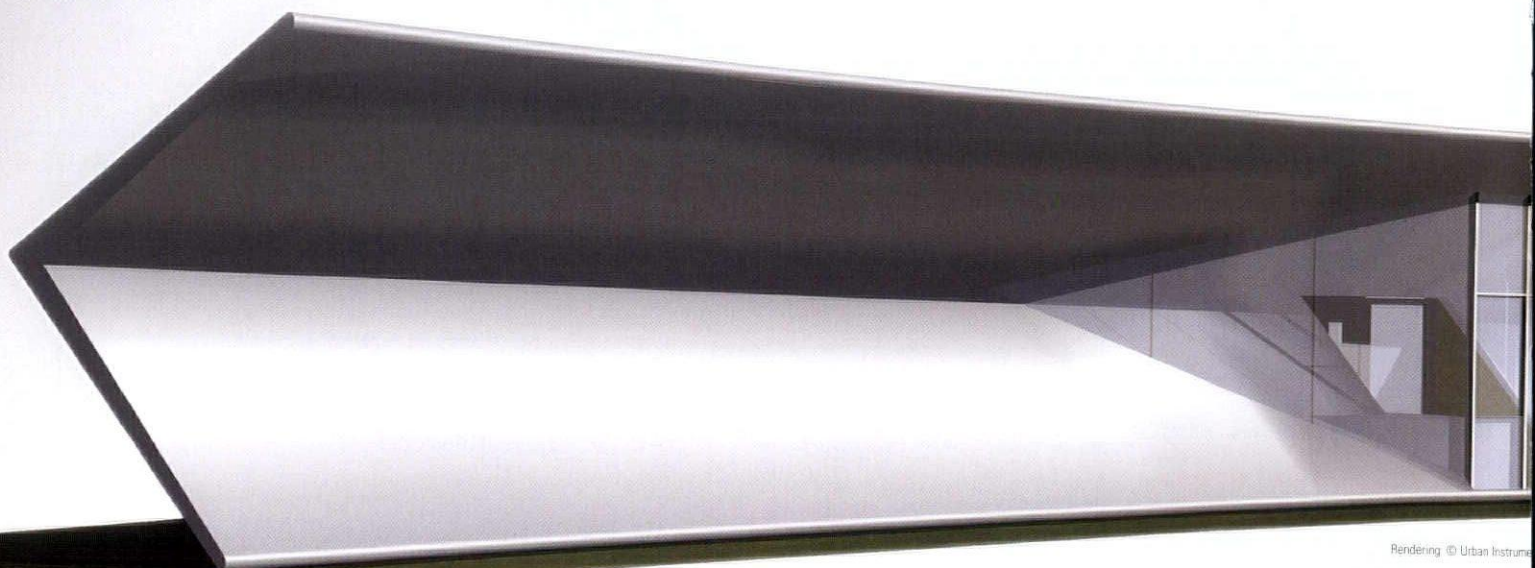
Kyna Leski is a principal of 3SIX0, which she founded with Chris Bardt in Providence, Rhode Island. She has been a professor at Rhode Island School of Design since 1988.

Elizabeth Padjen FAIA is editor of *ArchitectureBoston*.

Wellington Reiter AIA is the principal of Urban Instruments and was recently named dean of the College of Architecture and Environmental Design at Arizona State University. He has taught at MIT and Rhode Island School of Design.

Peter Wiederspahn AIA is the principal of Wiederspahn Architecture in Somerville, Massachusetts. He is an associate professor at Northeastern University and has taught at Pennsylvania State University, the Harvard Graduate School of Design, and Dartmouth College.

J. Meejin Yoon is the principal of Meejin Yoon Architecture and Design in Cambridge, Massachusetts and New York City. She teaches at MIT and was previously on the faculty at the University of Toronto.



Elizabeth Padjen: Any discussion of architectural education risks retracing the same old arguments about practice versus theory, the profession versus academia. But there are signs that suggest that the same old battle isn't being fought anymore. Or that interest in fighting it is waning. What happens if we say, "The war is over"? Let someone declare victory and let's just go on from there and see what we've got. At the very least, it changes the language of the discussion in ways that could be quite interesting. Since you all have combined practicing and teaching throughout your careers, let's start with that basic premise and see if you agree with it.

Brian Healy: I know I don't always pay attention, but to miss a whole war is kind of disturbing. I don't understand the premise that there is a war let alone a major disagreement. It seems to me that teaching and practice have always been linked. The idea that they would be in conflict at the point of calling it a war is something I don't understand.

Andrea Leers: But there was a period in the '80s in which a neglected area of theory came back to curricula in a very strong way. Along with this was the notion that somehow there were architects who were "proper" academics and theoreticians, and that they were different from architects who were building and designing. Not coincidentally, this was also the period when tenure, which architecture schools had mostly abandoned, came back into the schools. All of this contributed to a debate between practice and teaching that was pretty contentious for a while. I think that has passed. Many of those same people who saw themselves mainly as theoreticians — from Peter Eisenman to Jorge Silvetti — really wanted to build and did.

Peter Wiederspahn: I think the surge of theory that you are talking about was a desire for validation — for architecture to validate itself in the academy just as other disciplines were validating themselves through scholarship — the rise of literary criticism, for example. That strategy was faulty in that instead of trying to find an analogy to what the other disciplines were doing, we looked directly at the other disciplines and appropriated their language. The surge of theory was healthy in one respect, because we started talking about the ideas that underlie architecture and a new kind of culture emerged within the education of the architect that moved beyond just the pragmatics of building. On the other hand, there was something suspect about some of the specific references that people were looking at. I'm optimistic. I think in the last five years or so we've come to a comfortable spot on the sine curve between the extremes of ideas-for-ideas'-sake and the postwar focus on technique.

Brian Healy: I wonder if that overlaps with the idea that some of the proponents of theory are now trying to apply their lessons to the real world. Theory becomes far more conservative when you have to deal with the reality of how materials go together. And there are very few people today who would stand up proudly and say they have no intention of building. The discussions about how you construct something are much more common today than they were 10 years ago, when people would look at you askance if you brought up such things. So maybe I missed the war, but I've certainly been exposed to the disconnections between the camps.

Kyna Leski: On the one hand, the idea of a war between theory and practice strikes me as a false dichotomy, but on the other hand, the language is very familiar. John Hejduk was my teacher during the '80s at Cooper Union, the so-called "paper architecture" school. I remember when Hejduk came back from a review at the GSD [Harvard Graduate School of Design]. He said, "It's a war! They are stepping on crocuses up there at Harvard. I'm declaring war — an all-out war!" The paper architects did look to the other arts and disciplines as Peter said. But I don't think that Hejduk did this in order to validate or bring scholarship to his architectural ideas. Hejduk dedicated his life to fighting a soullessness that he saw in built architecture. And one of the ways he did this was through feasting on other arts and disciplines. When I went to the Hejduk show at the Whitney Museum, his friend and my



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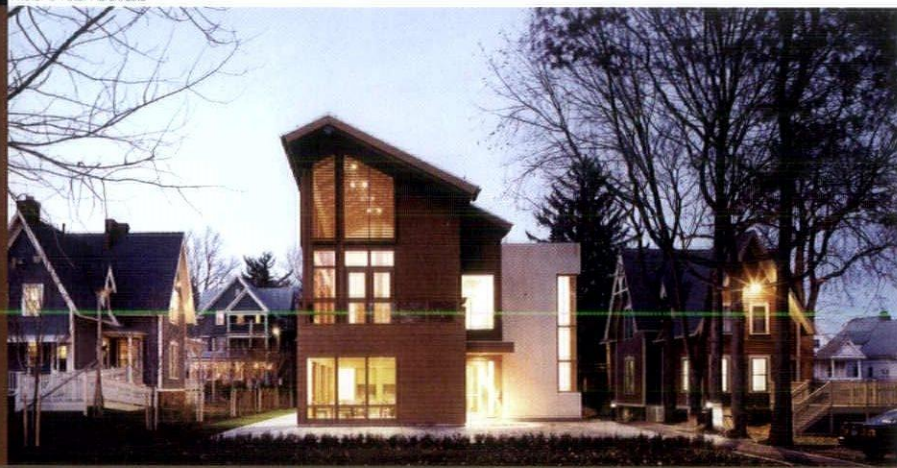
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Mixed-income housing
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teacher, the poet David Shapiro, was there. His first question to me was, "Are you building?" Neither Heyduk nor Shapiro was against building but against the soul-selling that's part of the practice of building. Other teachers I had at Cooper were Rick Scofidio, Elizabeth Diller, Bernard Tschumi, and Raimund Abraham. A lot of those people who were paper architects then are now building.

Wellington Reiter: I agree with Andre's recollection, because that was my experience at the GSD. I must say I have a great admiration for those folks who had sort of a big-bang theory about architectural practice — which was to speculate for a considerable amount of time and build very little and then explode onto the scene with a monumental project. Libeskind is perhaps the most dramatic example, sequestering himself up at Cranbrook just drawing and thinking and then the first thing that comes out of that process is his museum in Berlin. That is pretty remarkable. That is not the standard way to build a career and it is certainly not the AIA-sanctioned route. It's a high-risk strategy, but when the completely unbuildable somehow becomes tangible, there's a lot of interest in it. It's clear that things have shifted, that building has become a measure, and that it gives teachers a kind of currency. But I am not sure that I would agree that we are at a comfortable spot now. I see what I would call the current fetishization of new materials as being a major distraction. I wonder if the theory of the '80s has been replaced by a false sense of building and of working with real stuff. I really do believe there is something not quite right going on. It's another way for architecture students and teachers to distract themselves from the really nasty stuff out there in the world that you have to deal with in order to have any impact.

Brian Healy: I agree with you — there is something about this obsession with materiality that has the glaze of practice but isn't really about practice — how something is actually built or financed or fabricated. But teaching still informs practice and practice informs education. Being an educator and being a practitioner both require a lot of time to understand and master. I decided to work for 10 years before teaching. I always thought it was silly when people graduated and then turned around and started instructing — as if they'd actually acquired anything beyond the preconceptions of their teachers.

Wellington Reiter: You bring up a real issue — how long it takes to learn how to do any of this well. I think we can all agree that to achieve it is not just confidence but also skill as builders and as thinkers takes the accumulation of years. You can't speed that up. I know that I graduated with significantly less aptitude than I have now. A whole lot continues to happen after you leave school.

Seejin Yoon: We were talking about the academics who invested 10 or 15 years in a kind of pre-professional architecture and then began to practice. However, it would be interesting to speculate on whether the reverse is happening. Are a lot of practitioners now returning to academia? This discussion cannot be separated from economics. Many theoretical "paper" architects were involved in their design research in a non-building capacity because there was little opportunity to build. As those things begin to shift — as we continue through another economic dip — maybe more people will turn toward theoretical practices. Most of my undergraduate professors were post-graduation practitioners — they had practiced, built some important buildings, and were quite mature in their careers. My graduate experience was at the GSD in the mid-'90s, where the visiting critics were all practitioners. I thought my internship after school would focus on the pragmatics of building, but it was a continued education with a focus on design ideas.

Peter Wiederspahn: Northeastern has a co-op program — students have to land a job and practice for a year and a half while they're in school. I think that many people see it as a danger that we are introducing people too early to the pragmatic side of education. But we tend to have more trust or optimism in the experiences that the students get. Boston is an ideal place for this kind of program because there are so many good design firms here, and we are also able to include in the design studios a plethora of voices — the community groups, politicians, and other professions that have an inevitable impact on what we produce as architects.

Elizabeth Padjen: It seems to me that Northeastern students are to some degree self-selecting — they already see the value of that combined approach when they arrive on your doorstep. Schools of architecture define the image of the profession for the students, and in turn, the students define the image of the institution. I

wonder what students are expecting when they arrive. What is their image of the profession? And what are they encountering when they leave that is so different that accounts for the frustration and the dropouts?

Andrea Leers: We are sitting here as teachers and practitioners as though we are in charge of things. But frankly, it is our students' hopes and expectations and what they desire to learn that really color and shape the educational process and, later, the working process. I am always struck by the fact that no matter what the faculty thinks, the students come in as a body with an interest in certain things they've read about, heard about, or seen. In the past 10 years, students have come wanting to try out ideas that are highly imaginative and to find out how to realize them. And that is a change since the late '80s.

Elizabeth Padjen: Students at that point would have come in with more interest in pure theory?

Andrea Leers: Yes, or perhaps purely personal, formal explorations. I remember sitting with Rafael Moneo during a review at Harvard at the time when I was teaching at Yale. He was scratching his head, puzzled by the formal similarity of the projects, and he said, "Do you think it's in the water? What do you think?" I said, "I don't know what to tell you, Rafael, but it looks the same at Yale." All the projects on the walls that year had a common idea — they were all 400-foot long walls. I guess what I am saying is that students come in with their minds full of things they want to study. And they are usually in advance of the curriculum.

Wellington Reiter: Students are now definitely more educated and insightful consumers, and in some cases, very demanding consumers. I have also served as the professional advisor for the Career Discovery Program at the GSD which gives you a window on precisely what potential students are all about. And that window has gotten bigger to include a lot of mid-career professionals — people in their 30s, 40s and beyond — finishing up with careers in investment banking who now want to take a crack at architecture. Those individuals come with a very clear vision of what it is to be a professional, but at the same time they come because they know they are going to be in a studio situation for six weeks. And the studio experience really skims off the cream of what architects do.

I want them to see the full spectrum of possibilities. Nevertheless, Career Discovery is built around studio. Schools are built around studio. I think that's interesting, but I am not sure it's the only way.

Brian Healy: The aspiration of most students straightforward. I have never met anyone who went into architecture who didn't think it would be a great way to spend a life and improve the way the world works.


Meejin Yoon: A prevalent comment when I was in architecture school was that an architectural education was a good education whether you became an architect or not. And for a lot of my classmates, the goal was simply to get an architectural education.

Brian Healy: I don't know if students still aspire to have their own practice to the extent that they used to. While I suspect that Meejin's observations are probably accurate, my experience is that students have much more diverse expectations of what they will do with their education and their lives. If only 50 percent of young architects are taking their registration exams and getting licensed, how does that change the culture for interns? It may be that a lot of them don't aspire to have their own office any more.

Wellington Reiter: I was thinking the opposite.

Meejin Yoon: Me, too. When I applied to firms after graduate school, my most important criterion was that the principal of the firm both taught and practiced. I think that was why I had a really positive internship experience — it was a continuation of my architectural education. I think more and more students are seeking out these kinds of firms for their internship. My sense is that they would prefer not to work for firms that are solely production-oriented, but are looking for the firms that will extend their architectural education and continue to push their design exploration.

Kyna Leski: Interns today feel that the possibility of realizing something is closer, more within their grasp — much more so than when I was an intern. They see internship as not just building something with your hands and getting your hands on the materials, but also knowing everything that is involved in having a practice. It's precisely because they believe that someday they can have their own practice. When I was a student, we were plugged into much larger, more powerful organizations that could never possibly be our own.



33 Restaurant and Lounge
Boston

Architect:
3SIX0
Kyna Leski and Chris Bardt
Providence, Rhode Island

Photo: © John Horner

Brian Wiederspahn: Maybe Brian's earlier observation that 50 percent of graduates aren't getting their license has to do with the desire to hang out the shingle. Perhaps the 50 percent who pursue registration want their own practices. The other 50 percent perhaps are people who are content in large firms or aren't even going to stay in architecture. They are going to go into web design, graphic design or construction management.

Elizabeth Padjen: At the same time, I have the sense that some of those people not taking the exam are either put off by the exam — the cost and the lack of supportive structures for preparing for it — or are inventing other ways to practice. People are forming fluid collaborations around competitions or projects that might not be pure architecture in the traditional sense.

Wellington Reiter: I don't think you can miss enough what the dot-com era at the end of the '90s did to cause everyone to think entrepreneurially across disciplines. There was a point around 1998 or 1999 when, if you didn't have a business plan in your pocket, you were really out of it. What young architects learned was not to work for a big firm, but to get out there and build a business.

Andrea Leers: Taking the long view, I don't know that there is a big change in the numbers of people who study architecture and then want to go out and create their own practice. There have always been a lot of people who do that. I haven't known anybody who aspired to go right to a big firm like SOM. What is different is that, partly through the technical means that are now available and partly because we have come through the '90s at an entrepreneurial time, people are willing to conceive how they want to practice. I think it is the nature of the new practices that is different, not the number or the desire.

Brian Healy: And it is interesting that many people start practices with an eye on trying to keep foot in academia. But it's a tough strategy to follow. It is very rare to find a young educator who has a thriving practice, because most would choose to focus on their practice at that point. So they start in education and they try to practice and they do small projects like renovations or additions and build up a practice from there.

Meejin Yoon: It seems that educational institutions now have a real desire to hire people who are committed to practice. I think there was a period when schools hired a lot of young faculty members because they were trained in digital technology. A lot of schools needed people to teach things that senior faculty did not have exposure to and could not teach. But I think right now there are more opportunities to teach for younger architects who are practicing — there seems to be a desire to hire young.

Kyna Leski: It depends on the school. It has to do with the make-up of the existing faculty, which needs to be counterbalanced by the next hires. It can be quite complex.

Brian Healy: There is pressure to be a practitioner — I don't know any educator who doesn't claim to be a practitioner as well. But it is impolite to ask how active the practice actually is.

Meejin Yoon: But has that pressure been consistent over the last 25 years or is this increasing pressure for all educators to practice something new?

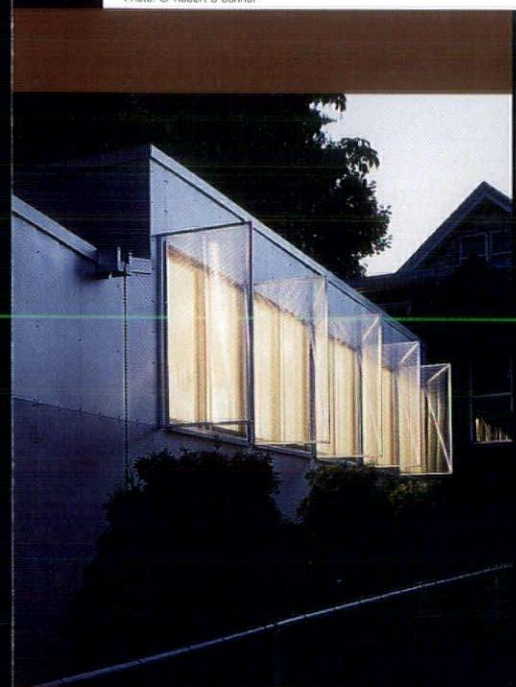
Brian Healy: Looking back over the 12 years of my teaching career, I'd have to say people are far more interested in the translation of ideas into built form than they used to be.

Wellington Reiter: And does all of this assumed new interest in building mean that as a group we are actually more effective as teachers than we were before, when the schools were more engaged in theory? Then there really was a disjunction between theory and practice. If we now have a supposed interest in the engagement of those ideas with built form, are we collectively becoming more effective in shaping the larger built environment?

Andrea Leers: Not necessarily.

Wellington Reiter: I agree. I would say we just have more one- and two-person practices, because we have more people who want to go into practice earlier. I wonder if we aren't getting lost in the woodwork once again. We've turned a corner, and we are now in a different area where the focus is on practice and fabrication. But one could make a claim that what we have now is a larger collection of boutique firms out there serving a very small sliver of the population. And I wonder if that coincides with the disengagement from larger urban, economic, and ecological issues.

Photo: © Robert O'Connor



Home/work space
Wiederspahn Studio
Somerville, Massachusetts

Architect:
Wiederspahn Architecture
Somerville, Massachusetts



Interactive pleated wall
New York City

Architect:
J. Meejin Yoon
Cambridge, Massachusetts

Photo courtesy Meejin Yoon

Kyna Leski: We talk about wanting to build, how exciting it is. But there is an art to teaching that we haven't talked about. Some of the best teachers at RISD practice only minimally.

Elizabeth Padjen: Let's talk a bit about that and the culture of the schools. How do they nurture good teachers? Do they try? If we assume it is a good thing to have people who are teaching and practicing in a seamless kind of way, we then have to think about the plight of junior faculty. And the plight of junior faculty is that they want to establish practices but can't because they have teaching loads and committee loads. My sense from this discussion is that the schools seem to be charmed by the notion of having younger faculty members with younger firms that balance out some of the older, more established faculty members. But how do they make that work?

Meejin Yoon: I agree with Brian's comment that to start both your teaching career and your practice simultaneously is insanely difficult. I had intended to work for 10 years before even thinking about teaching, but it just didn't work out that way. But as much as junior faculty feel that pressure and as exceedingly difficult as it may be, it is really exciting. I couldn't give up one right now — I would rather struggle and build them both up slowly than give up one and focus on the other.

Brian Healy: That's right. What happens at the intersection of education and architecture and design is intoxicating. Some people think they'll cross over from one to the other late in their careers, or after they retire. But sometimes the best teachers are the ones who have very small practices and as they get older, they realize that teaching is their primary strength.

Peter Wiederspahn: I think there is a strategy for people who are interested in doing both. Academia provides a kind of cushion that allows you to accept only the work that you want. You are not supporting a practice. You don't have to take on every project to pay the bills and hope that some are going to provide interesting design opportunities. It's a symbiotic relationship — or at least, I choose to make it symbiotic. The practice informs the education and vice versa. But it can be a very hard sell for young faculty in a university if they are trying to build a tenure case, because universities understand scholarship and that is the measuring stick.

ellington Reiter: If there was ever a discipline where the tenure clock doesn't make any sense, it's architecture. It is illogical, and it forces young faculty to pursue the big-bang approach to architecture, trying to win a competition out of nowhere. If you have a salary, you have the ability to pursue competitions. But it makes it hard to build a practice in a more thoughtful and deliberate way. I haven't seen an architecture school that benefits from tenure.

Seejin Yoon: I would like to build upon Kyna's point. We are part of a profession of education. And what is missing in the tenure process is the idea of teaching. If we have a profession of education then the main focus for a young teacher, in my opinion, should be better teaching. The tenure process has very little to do with your ability to contribute to someone's education and has more to do with professional standing.

ellington Reiter: Teaching architecture is actually remarkable when you think about it. In what other walk of life, would you be given a job and a contract and a timetable and a place to do your work — meaning to teach — but the primary determinant as to whether you will be kept on has to do with your ability to run a separate business on the side? It is extraordinary. The professional standing that you try to gain through building is about criteria that have nothing to do with teaching.

Andrea Leers: Yes, but medical, law, and business schools share that, too. It's a core aspect of a professional school. I think one of the hardest things we face — and I know I have tremendous respect for people who do it better than I do — is being a good teacher as well as being a good architect. That is rare. I know a lot of wonderful designers who can't teach. I know a lot of wonderful teachers who do not build, could not build. I think that the skills that it takes to do both really well are very rare.

Elizabeth Padjen: Let's talk more from the point of view of the students. I'm intrigued by the question of what makes a good teacher. And how do you know if you are a good teacher? Or how do you learn how to teach?

Seejin Yoon: I was always very puzzled by this. When I was hired for my first teaching position at the University of Toronto, I was given a four-course load including a 300-student introduction-to-architecture course. I remember wondering how it was possible that somebody would trust me with such a responsibility. I always wondered whether there was a course I should take, like "How to Teach." People seem

to assume that if you went through the education system, you should be prepared to teach. But I do think that it is very possible to measure your progress as a teacher via the progress of the student.

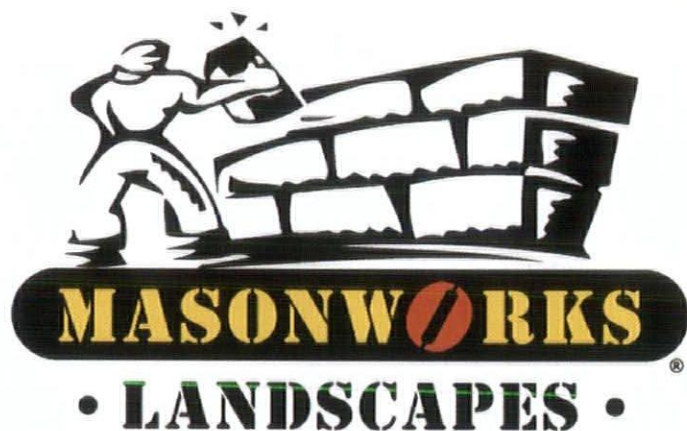
Brian Healy: It's reflected in the quality of the work produced by the student. It seems to me that you do know. For me, it is based on a sense of empathy. It's not about the instructor but about the student. And that may be the hardest thing to understand for a lot of architects who come in with 30 years of experience or the big name. They think it is about them. It is not. It is the student's classroom. It is the student's studio. And you can directly sense from the excitement, enthusiasm, development, and production of the student just how good a job you are doing as an educator.

Andrea Leers: Some good advice was given to me once about different ways of teaching — teaching by example, teaching by explication, and different ways of conveying information. What's important to be an effective teacher is to learn what your mode of teaching is, and to understand how to best convey what it is that you want to convey. And those people who aren't good at it fall away very quickly. In my experience, you learn what your voice is, what your strength is, and that what you can teach is what you care most passionately about. Then you learn through the experience of teaching many studios what produces effective learning. If you have been clear about your intentions for the learning experience, and the students want to learn that thing — it is not always a match — then you can measure how effective you have been. You can see it — students respond. And they are also very vocal.

Peter Wiederspahn: Architectural education, like the relationship with a client, is a reciprocal relationship. Architects often say great buildings require great clients — the clients push the architects to do better work and allow them to do better work. One of the great secrets of being an educator is the constant education that the educator goes through. The students actually push the professor almost as much as the professor pushes the students to gain new knowledge, to move into areas that are unknown territory. You develop a bond with the students. That is one of the great excitements for me about educating. It is not something the university can measure. And unlike most other disciplines in the university, you have a direct one-on-one contact with students on a constant basis. It is really a fantastic environment. And an enormous privilege.



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A Delivery from the Assembly Line

by Kirin Joya Makker

Back and forth. On and on. The endless debate between the academy and practitioners concerning the purpose and character of architectural education in this country is a numbing enterprise at best, a cantankerous exchange at worst. In the midst of this ritual bonding with no amicable resolution in sight, few participants have paused to ask a basic question: what do the approximately 25,000 architecture students think of all of this?

As the past editor of *CRiT*, the journal of the American Institute of Architecture Students (AIAS), I know that the profession is genuinely committed to improving architectural education. As a recent graduate, however, I share the concern of many students about the nature of this debate. We certainly understand (in this economy, perhaps even more than our elders), the necessity of academic preparation that will secure employment. But the very language of the debate is a cause for alarm — language that describes us in terms of products that are bought by architecture offices, language that rings of assembly-line capitalism. This, understandably, does not sit well with students, who find themselves in the peculiar situation of being simultaneously the products and the consumers of the education system.

Think about the language used in offices to describe student interns. An entry-level employee is typically assigned a position on the “production staff.” Phrases like “CAD jockey” and “CAD monkey” were probably invented by interns themselves, but they reflect the speed and efficiency — uninterrupted by thoughtful pauses on the nature of one’s work — that are the primary indicators of value. Some firms even call their “production” areas the “CAD pit,” a term that conjures a Dickensian scene, dismal and deadening.

This language is born in the kind of chatter that is best described as light banter; it is meant to poke fun at our situation, using humor and self-deprecation to make us feel a little better about how we spend much of our time. But this language spreads among students and, unfortunately, it breeds fear among them.

As students approach graduation and the search for employment, their great worry is that they will become a commodity. Beyond the anxiety of simply finding a job, many students’ worst fear is that they won’t be valued for their creativity and imagination, abilities that they have just spent a great deal of time and money developing. “Students know that practitioners are accusing the academy of not preparing students and students worry about this,” observes Larry Fabroni, 2002–2003 president of the AIAS. “But they also worry that the way the architecture profession practices is not capitalizing on what they’ve learned in school. How will they apply this creative, big-idea-driven design process to the real world?”

This cardinal fear most likely derives from the disconnect that students experience between their earlier ideals as applicants to architecture schools and the life they come to anticipate after graduation. My own informal survey of student motivations for pursuing a career in architecture reveals broadly shared experiences. At some point students become opinionated about the built environment; they want to participate in shaping it and perhaps improving it through what they have sensed is beautiful or effective architecture. They are interested in a career that offers opportunities to work creatively day to day but is not the life of an artist. (The public commonly views architecture as the union of art and science, creativity and order, and many of those applying to architecture school share these assumptions.) They like to draw or to craft or to build, either digitally or not digitally. They want to be in a career that challenges their creative spirit, that might reward them for being imaginative.

These ideals are often considered romantic and fanciful because they reflect an ethic of aesthetic and social purpose. At these very ideals are the source of the energy and enthusiasm that instill a kind of pride and invincibility among architecture students, keeping them in school despite the sometimes detrimental effects of studio culture on their lives.

Unfortunately, some students find that architecture school stifles their creative energy; they steadily lose momentum. In fact, the majority of students I have talked to feel a dampening of their spirit as they approach graduation, regardless of the level of support from their schools and teachers. Quite simply, they believe practitioners will not offer them the life they thought their degree would yield. Thirty percent of my professional-practice class did not envision pursuing a traditional internship path in a firm. Is there a correlation between the people who give up on practice and the shrinking of opportunities to do what they want in firms? Is the profession losing some of its most broad-minded and idealistic contributors? Are we so losing creativity?

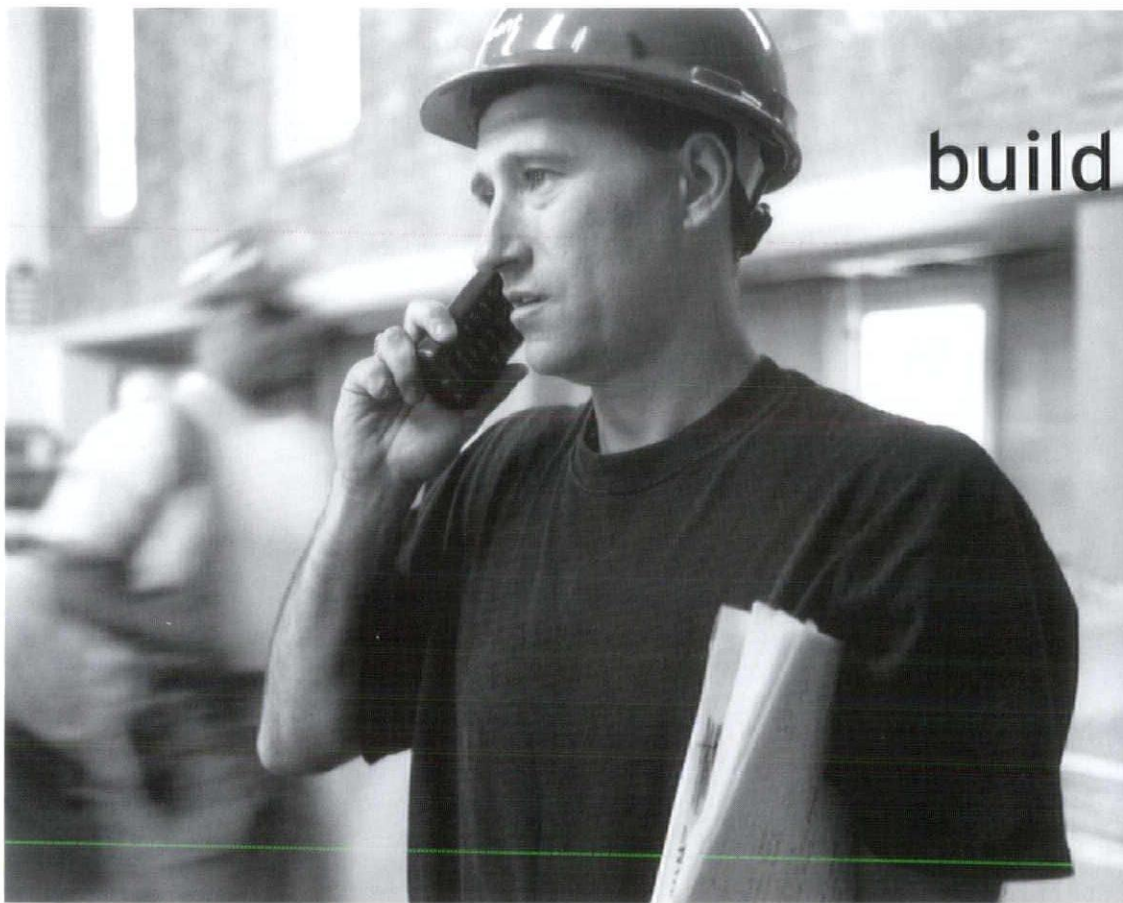
Students will always be disappointed when they feel their ideals have been compromised, and motivations and ideals inevitably shift with experience. But the profession can learn from its youngest, arguably most enthusiastic members. How would the tired theory-versus-practice debate stand up if the values shared by so many students were central to the profession?

■ ■

Jin Joya Makker was the 2001-03 editor of the AIAA publication *CRIT*. She graduated December 2002 with an M.Arch. from the University of Maryland. She divides her time between Autocadding for architecture firms, teaching drawing, and freelance writing. She lives in Millers Falls, Massachusetts.



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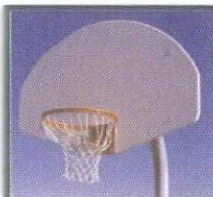
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Required Reading

An educational timeline

by Nathalie Westervelt

Once there was no formal architectural education in this country. Prior to the Civil War, American architects, unless they studied abroad, learned by serving as apprentices to practicing architects, as was the tradition in England. No standards governed the requirements that led to the title "architect."

This deficiency was soon addressed by organizations such as the American Institute of Architects and the Boston Society of Architects and by the establishment of architecture programs in universities. By 1912, the Association of Collegiate Schools of Architecture was established and those education programs that wished to join were required to maintain its educational standards. Today we have the National Architectural Accrediting Board.

A useful case study in the history of architectural education is MIT, home of the first department of architecture in the United States. William Barton Rogers, a geologist and teacher at the University of Virginia, received a charter to open the school in 1861; the first students arrived in 1867, after the Civil War. At that time, the program was patterned after the Ecole des Beaux Arts in Paris, which, as historian Spiro Kostof has noted, espoused the belief that "architecture is an Art" encompassing "universal principles that could be rationally perceived, expressed and taught." It was particularly appealing because it offered a theoretical approach to design as well as a relentless drive towards representational perfection.

These goals hold true in architectural education today, yet over the years, the responsibilities of the architect have expanded and contracted in response to changing social attitudes. This is most apparent in the changes in the MIT curriculum and in the "mission statements" in the *MIT Course Bulletin*, which reveal a progression from the practical to the theoretical, from the monumental to the societal, and from "stereotomy" (cutting solid volumes into various shapes) and water-color to computer rendering. Although the specific offerings have changed, the core disciplines have not: engineering; professional practice (including urban planning); representational skills; design; and history, theory, and criticism.

What follows is a selective timeline representing required courses in the MIT Department of Architecture.

"[The Department of Architecture] is arranged to meet the needs of those who are commencing their professional studies, as well as of the experienced draughtsmen who desire to make up deficiencies in their training, or to qualify themselves for undertaking the responsibilities of practice."

Bulletin 1900

"It is believed undesirable, in fact dangerous, to spend much time upon the hampering limitations of ordinary practice before the student has acquired sufficient knowledge of the subject to discriminate between the general and the special case."

Bulletin 1915

1900

Engineering:

Materials
Heating and Ventilation
General Statics
Building Stones
Strength of Materials
Specifications and Working Drawings

Professional practice:

Business Law
Business Relations
Principles of Public Health and Sanitation

Representational skills:

Shades and Shadows
Perspective
Freehand Drawing
Stereotomy
Pen and Ink

Design:

Elementary Design
Design

History, theory and criticism:

Ancient and Romanesque History
Gothic and Renaissance Architecture
History of Construction
European Civilization and Art

1915

Engineering:

Constructive Design I, II
Heating and Ventilation
Applied Mechanics I, II

Professional practice:

Business Law
Professional Relations
Principles of Public Health and Sanitation

Representational skills:

Freehand Drawing
Perspective

Design:

Elementary Design, Elements of Architecture
Design and Theory of Architecture
Design Thesis

History, theory and criticism:

History of Ornament
Architectural History
European Civilization and Art

Required Reading

"The teaching of [Course IV Architecture and Course IVA Architectural Engineering] has steadily developed under the conviction that the ever-widening field of professional opportunity offered ample scope for each. It consequently has seemed fundamentally unsound to train students in one course with the impression that they were qualified to assume the obligations of the other."

Bulletin 1930

"... prerequisites for the study of architecture are sympathy for human institutions... esthetic perception, and the ability to utilize effectively the methods of science."

Bulletin 1960

"The School has no illusion that architects and planners by themselves can bring about a major transformation of the environment without substantial changes in society..."

The architectural design curriculum for undergraduates and for graduate students provides a flexible framework for study which places responsibility on the student individually to define their educational directions. There is no single core curriculum

Bulletin 1975

1930

Engineering:

Building Construction
Construction Design
Structural Analysis
Structural Drawing
Structural Design

Professional practice:

Professional Relations
Office Practice
Estimating
Planning Principles
Town Planning

Representational skills:

Shades and Shadows
Perspective
Freehand Drawing
Graphics
Color Theory and Application
Modeling

Design:

Design

History, theory and criticism:

Architectural History
European Civilization and Art
Philosophy of Architecture
History of Renaissance Art
Theory of Architecture

1932

The Department of Urban Studies and Planning began in 1932. It was the second such department in the United States. The first was established at Harvard in 1925.

1945

Engineering:

Statics and Dynamics
Strength of Materials
Materials
Site Planning and Construction
Heating and Ventilation
Structural Analysis
Architectural Acoustics
Illumination

Professional practice:

Urban Sociology
City Planning and Principles
Sanitation
Land Economics
Building Economics

Representational skills:

Shop
Freehand Drawing
Freehand Drawing and Color

Design:

Architectural Design
Thesis Research

History, theory and criticism:

Architectural History

...and electives

1960

Engineering:

Architectural Form and Structure
Applied Mechanics
Structural Analysis
Heating and Ventilation
Materials:
Masonry and Details
Materials:
Wood, Plastics, Fabrics

Professional practice:

Structure of the City
City Planning Principles

Representational skills:

Graphical Processes
Basic Machine Drawing
Graphics Laboratory
Light and Color

Design:

Form and Design
Architectural Design
Thesis Research

History, theory and criticism:

Introduction to Art and Architecture
Modern Art and Architecture

...and electives

1967

The Center for Advanced Visual Studies was founded in 1967.

1975

There is no required core curriculum; offerings include:

Environmental Design III
Structural Design and Application
Synthesis of the Behavior of Structural Systems
Industrialization of Structural Systems
Special Problems in Building Technology
Introduction to Industrialization of Building
Seminar in Industrialization in Building
Project Organization and Control
Legal Regulation and the Building Process
The Construction of Buildings
Policy Alternatives for the Development of the Building Industry
Special Topics in the Industrialization of Building
Urban Settlement Design in Developing Countries
Systems and Industrialization
Introduction to Information Processing
Geometry and Computation in Architecture
Design Information: Structures and Models

Environmental Light and Color
Advanced Visual Design
Approaches to Visual Communication
Special Projects in Graphic Communication
Environmental Art Presentations
Projects in Environmental Art
Special Problems in Environmental Art
Advanced Creative Seeing
Architectural Design
Aesthetics In Science and Technology
Machine Intelligence in Design
Advanced Topics in Environmental Precedents
Advanced Study in 19th Century Art
History and Theory of Caricature
Gesture and Expression in Western Art
Origins of Contemporary Architecture in the 18th Century
Modern Architecture in Europe from 1895 to the Bauhaus
Dada and Surrealist Images in the Arts
Advanced Study in 20th Century Art
Advanced Studies in Iconography and Symbolism

"More than 100 undergraduates and 400 graduate students from throughout the world are trained to deal with clients and projects at every level and scale of society and virtually in every corner of the globe."

Bulletin 1990

"The Department of Architecture is composed of four semi-autonomous discipline groups: Architectural Design; Building Technology; History, Theory, and Criticism of Art and Architecture; and Visual Arts..."

Of the nine electives, one is urban studies, one is computation, one is visual arts, three are concentration, and three are unrestricted."

Bulletin 2003

1990

2003

Photo: Stuart Darsch for MIT

blems with 20th Century
Architecture and Philosophy

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structural Design

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Architecture of American
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he City in East Asia:
a-China-Japan

anization in Developing
ntries: People, Dwellings,
d

stal Zone Management

nning and Design
ealth Facilities

cial Problems

rchitecture and Social
nge

anced Photography

ster-Apprentice Workshop

otographic Representation

Graduate Workshop in
Photography

Special Advanced Projects
in Photography

Special Problems in Video

Advanced Filmmaking

Problems in Film Editing

Film and its Technology

Special Problems in
Filmmaking

Advanced Design

Special Problems
in Architectural Design

Form in Architecture

Physical Considerations
in Architecture

Criticism of Architecture

Studies Toward a Theory of
Architecture

Studies Toward a Theory
of Environmental Design and
Form

Studies in Environmental
Symbolism

History of the Architectural
Profession

History of Urban Form

Special Studies in the History,
Theory and Criticism of Art

Special Studies in the History,
Theory and Criticism
of Architecture and Urban
Form

Special Topics in Film History
and Criticism

Engineering:

Environmental Technology

Basic Structural Theory

3-D Computer Graphics

Fundamentals of Energy
in Buildings

What is a Building?

Professional practice:

Introduction to Urban Design
and Development

Introduction to Public Policy,
Analysis
and Government Action

The Urban Neighborhood

Representational skills:

Fundamentals of Visual Design

Creative Seeing

Introduction to Three-
Dimensional Design

Design:

Introduction to
Architectural Design II

History, theory and criticism:

Introduction to the History
and Theory of Architecture

19th-Century Art

20th-Century Art

...and electives

Engineering:

BT I: Materials
and Construction

BT II: Structures

BT III: Structures II

BT IV: Energy
in Building Design

Professional practice:

Professional Practice

Design:

Level I Studio

Level II Studio

Thesis

History, theory and criticism:

Dialogues in Art,
Architecture and Urbanism

Contemporary Architecture
and Critical Debate

Architecture 1750 to Present

Architecture in History and
Present

...and nine electives



Nathalie Westervelt is a second-year student in the M.Arch. program at MIT.

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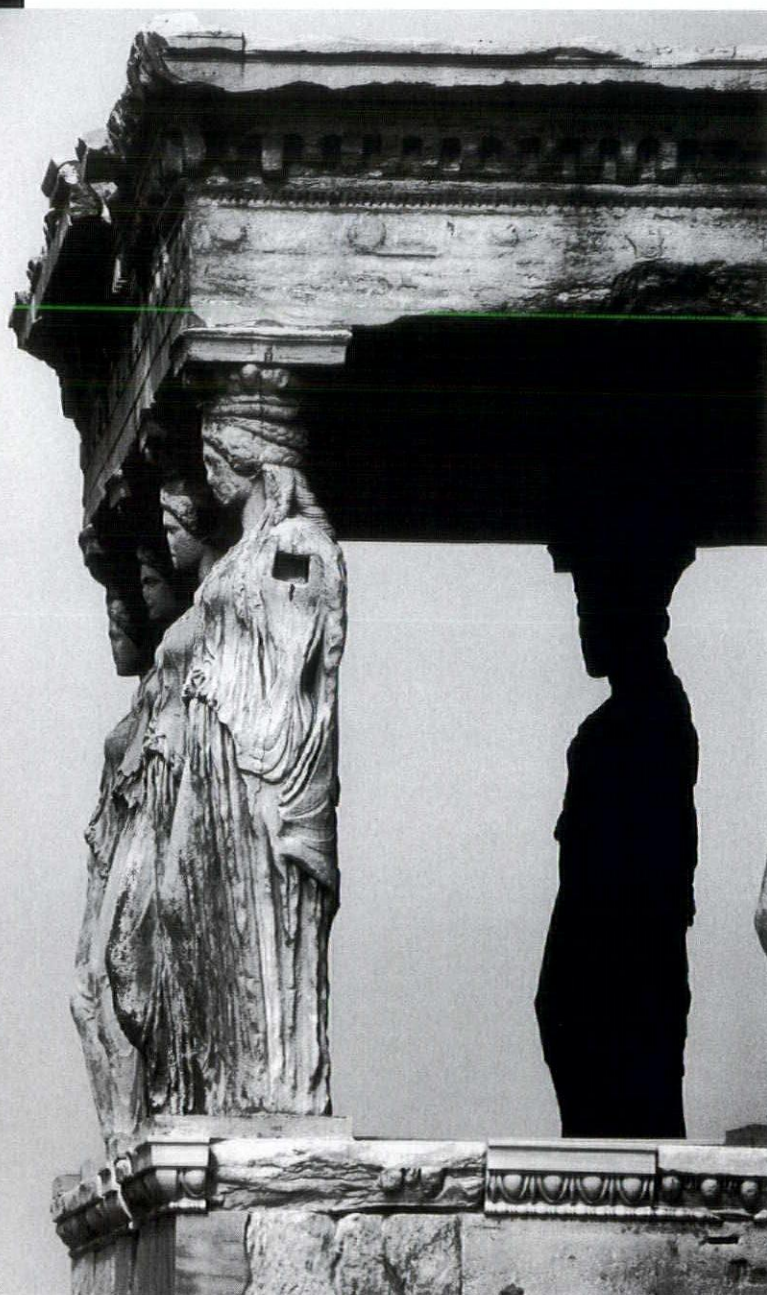
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Clio and the Education of Architects

by Eduard F. Sekler



Among the nine Muses, those daughters of Memory, none deals with architecture. But among the many followers of Clio, the Muse of history, architecture appears early as a topic of concern. Accordingly the history of architecture can look back at origins in a distant past. For centuries, an understanding of history was taken for granted as being of paramount importance in the education of an architect. Today, however, it seems that architects in every generation must decide anew how to react to the wealth of material that architectural history has to offer. As a consequence, teachers of architectural history must decide in which direction their presentation should be oriented at a given moment in order to be of the greatest value to student architects.

If one asks distinguished architects which qualities they consider important for a successful architectural career, the replies are remarkably similar. What matters, they respond, is to be always on top of all relevant technical, cultural, and societal information and to have the capacity to recognize problems clearly in order to analyze them in such a manner that they become amenable to a solution. Further, the architect should have sufficient willpower, character, and perseverance to see a project through to its successful completion. And finally, the successful architect must possess that certain something that is summed up as "architectural talent" and described in such terms as "a good eye and a creative spatial and social imagination" or "an intuitive feeling for form and the ability to visualize three-dimensionally." One of the characteristics of architectural talent is also the capacity to "think architecturally," which, as the philosopher Jacques Derrida has noted, is not the same as thinking about architecture. "Architectural thinking" is comparable to the phenomenon Rudolf Arnheim has described as "visual thinking."

Among the qualifications mentioned above, only "architectural talent" is profession-specific. Its nurture and development has always received special attention in the education of architects. Consequently, the question for teachers of architectural history is narrowed down to defining the way in which their instruction can make a relevant contribution in support of architectural talent. Obviously the mere transmittal of information here is not enough. Rather, a selection, analysis, and interpretation of the

historic material is needed that takes cognizance of the chief interest of the students, i.e. design.

It is true that the study of architectural history may simply contribute to a higher level of general education, one that sharpens the awareness of individuals about their place in the process of continuous change around them and thus creates a stronger mindfulness of connections in time and place. But this broadest educational function of architectural history could be equally well performed by various other branches of historical study that are not focused on architecture.

By contrast, architectural history, when it serves a pedagogic goal, must focus on two closely linked pursuits directly related to the activity of making architecture: fostering the capacity to think architecturally and to generate architectural concepts, spaces, and forms; and acquiring criteria for the evaluation of fundamental theoretical assumptions.

Experience has shown how the actual or virtual confrontation of student architects with the built heritage of the past can become a source of lasting inspiration. But no virtual experience of an historic building can equal the powerful real experience of the same building's aura when it can be circumambulated, entered, touched, and smelled. On such occasions, unforgettable visual images, spatial experiences, and the discovery of fruitful architectural concepts can enrich a student's mental storehouse where they may remain effective even after they are no longer consciously remembered.

This explains why excursions to historic sites and buildings should be an integral part of coursework: students, guided by their teacher, can not only hone their capacity to sketch, but also test their skill in observing, describing, analyzing, interpreting, and evaluating a building. All of which will happen more readily if the teacher succeeds in engaging the student emotionally as well as intellectually, by offering, for example, interpretations that are both critical and poetic — not only valid, but also exciting and inspiring. Yet even thoroughly studied and interpreted individual examples should not remain isolated in the students' minds, but should become embedded in the larger historic framework. Often phenomena are inexplicable unless one knows their antecedents. This is the reason why one of the greatest challenges in architectural education is how to reconcile a limited selection of historic examples with a satisfactory presentation of the broad panorama of history.

It is my conviction that architectural theories, regardless of their derivation from other realms of discourse, must be grounded in architectural history. Theory, as the term is used here, implies a total view and assessment which includes the recognition of operative principles and a set of basic assumptions and value judgments together with a working terminology that has been clarified with the greatest possible precision. An architectural theory needs to be validated with reference to the "facticity" of architecture — its physical, tactile presence. This facticity, for example, distinguishes architecture from a text, if the term "text"

is used in its generally accepted manner. The philosopher Nelson Goodman has gone to some length in discussing how and why, in his words, "buildings are not texts." He explains: "With some interesting exceptions, architectural works do not denote — that is do not describe, recount, depict or portray. They mean, if at all, in other ways...." It is one thing to refer to a building metaphorically as a text and another to deal with it as if it really were a text.

A transferal of procedures from the area of literary criticism or linguistics to architectural criticism can have truly mystifying results. Analogous quick transferals from theories in areas of recent scientific research usually are equally dangerous, though they may stimulate interesting discussions.

If architectural theory and history must remain grounded in architecture's facticity, this brings us back to the actual building as the focus of teaching. It is the building seen in its intricate connection to all factors — including the non-architectural ones — that influenced its genesis. If the actual building is the focus, its preservation should be of paramount concern to the architectural historian and, by implication, to the teaching of architectural history. This is not to say that the technical detail of historic preservation should be included in courses of architectural history, but that one aspect of major importance to architectural designers should be explored: the juxtaposition of new and historic buildings. This could happen ideally in collaboration with a design instructor who is willing to assign the insertion of a new building into a historic setting. It is precisely on such an occasion that students will become strongly aware of the relevance of historical study for their future careers. Context is not a surface matter but a realization of the depth of time.

The 20th century has seen great advances in the study and teaching of architectural history and a widening of its horizon. The 21st century, I assume, will continue to explore further the new areas of interest and interdisciplinary collaboration, employing the powerful new tools the age of digitization is offering. All of this promises to have positive consequences for the teaching of architectural history. Clio should have every reason to be proud of her devotees. ■ ■ ■

Eduard F. Sekler is Professor of Architecture Emeritus and Osgood Hooker Professor of Visual Art Emeritus at the Harvard Graduate School of Design. In 2004, he will celebrate 50 years of teaching architectural history at the GSD. He is an architect and, as a UNESCO consultant, he has been internationally recognized for his pioneering preservation work in the Kathmandu Valley of Nepal. His numerous publications include *Josef Hoffmann: The Architectural Work*.

Further reading:

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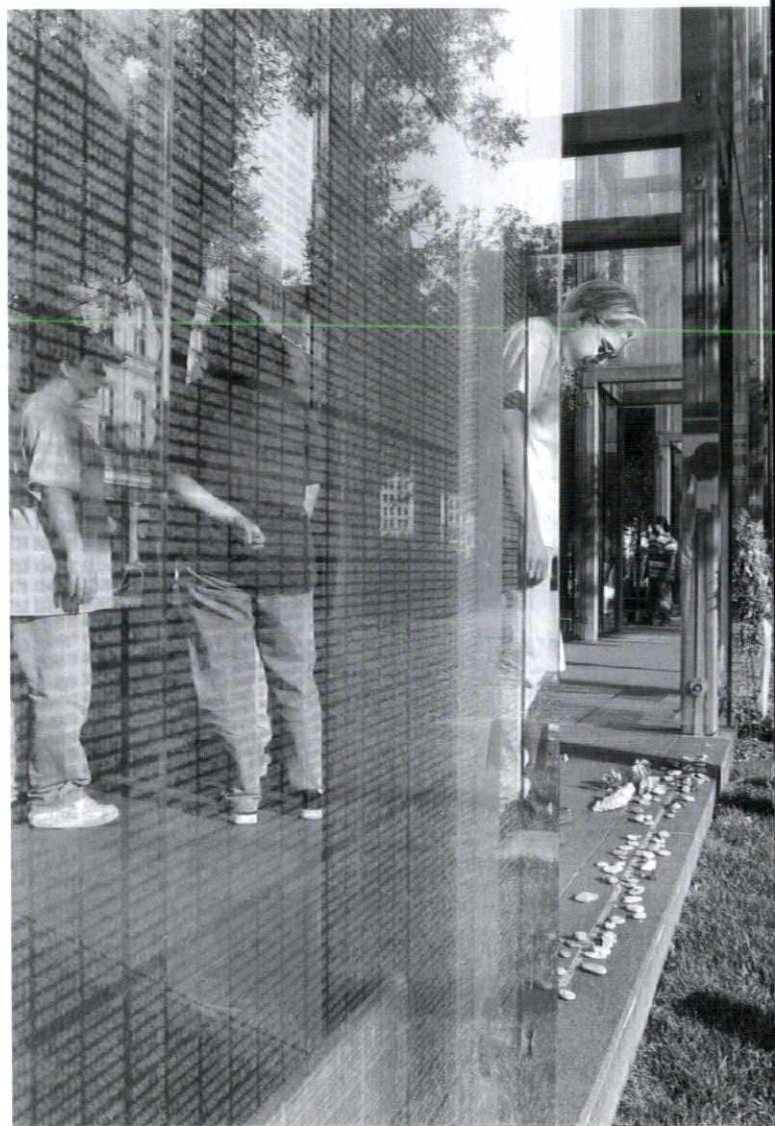
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The Architecture of Education:

Photographs by Nancy Royal



With the anniversary of the September 11 attacks and the design competition for a memorial for the World Trade Center site, our thoughts are once again on memorials and their meaning, on their ability to offer solace and to honor those we have lost.

Nancy Royal's photographs of visitors to the New England Holocaust Memorial remind us of another aspect of memorials: they acquire new purpose as time goes on, beyond memory, beyond the expression of grief. As time goes on and survivors pass away, memorials can serve as a kind of architecture of education — to teach new generations, to convey the depth of loss, to tell the story yet again in the all-too-human hope that others might learn from our experiences.

— Elizabeth Padjen FAIA

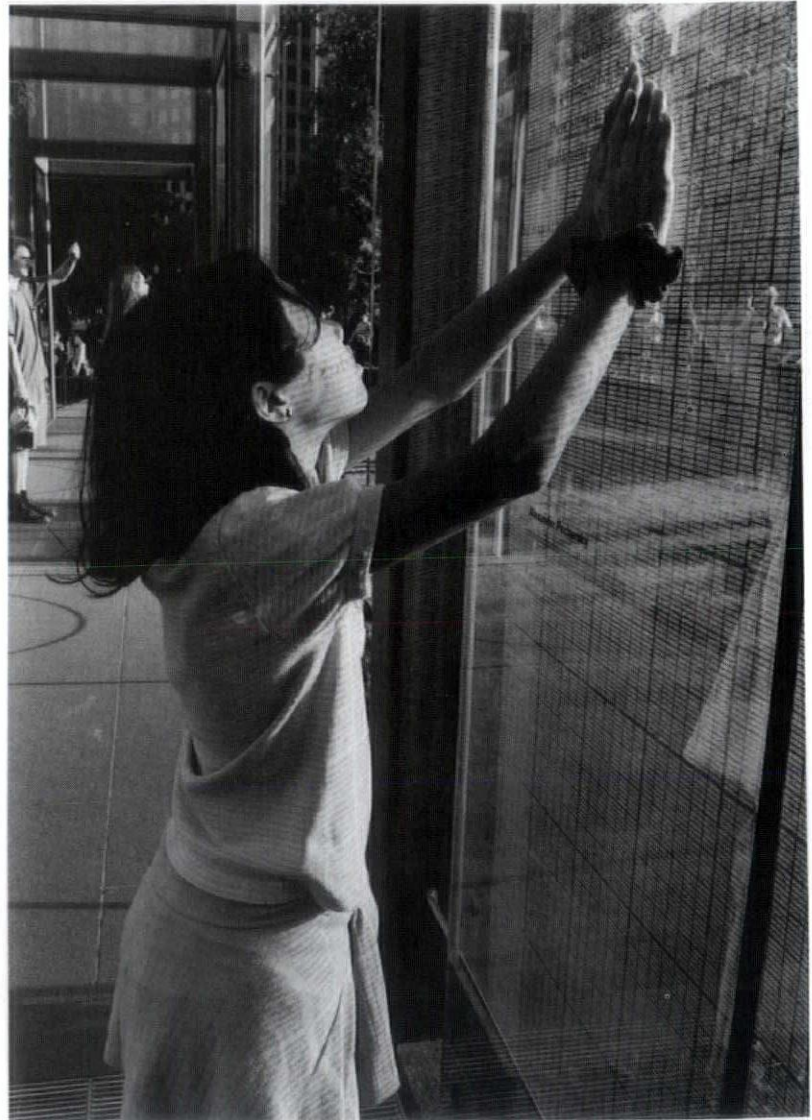




Nancy Royal is a freelance photographer in Boston. Her initiation into photography was at the School of the Museum of Fine Arts in Boston with Hans Li as her mentor. Her work has been exhibited at Harvard University, Symphony Hall in Boston, and the Boston Architectural Center.

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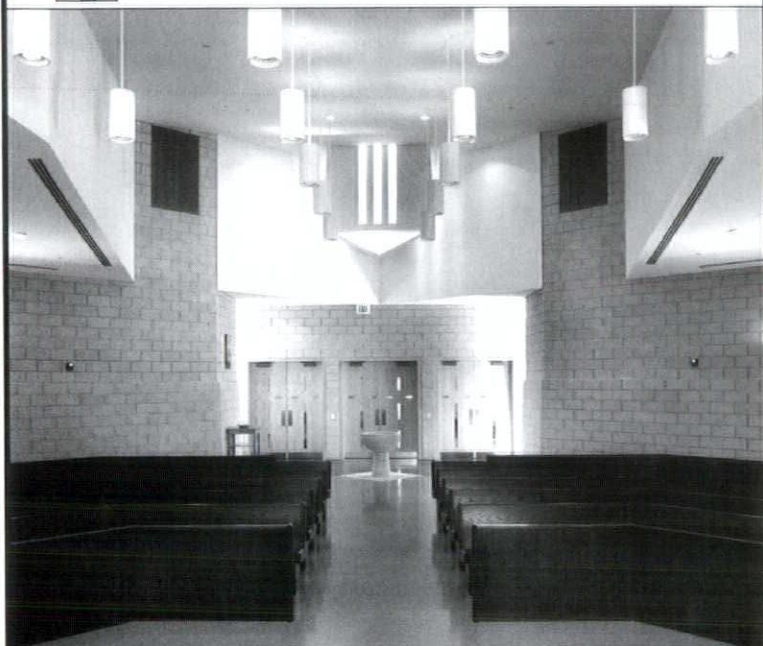


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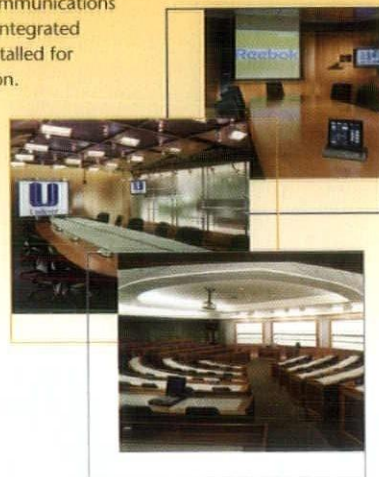
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Great Expectations: The Design Career Threshold

by Erin Rae Hoffer BAC

Erin Rae Hoffer AIA is executive vice-president of the Boston Architectural Center. She is conducting research with Dr. Muriel Waldvogel and Sativa Saposnek (supported by a grant from the Boston Society of Architects) on the career expectations of emerging design professionals.

"I am instructed to communicate to him," said Mr. Jaggers, throwing his finger at me sideways, "that he will come into a handsome property. Further, that it is the desire of the present possessor of that property, that he be immediately removed from his present sphere of life and from this place, and be brought up as a gentleman — in a word, as a young fellow of great expectations."

— Charles Dickens, *Great Expectations*

Every year, thousands of individuals launch careers in design by entering one of 113 nationally accredited institutions of architectural education in the United States. Not unlike Pip, who arrives in London with great expectations for his life as a gentleman in Charles Dickens' novel, these men and women cross the threshold of their new profession brimming with aspirations. But as students quickly encounter the realities of academics and practice, many are forced to reassess their aspirations and reinvent a vision of their career future or leave the profession completely as a result.

To better understand and address the causes of professional attrition, the Boston Architectural Center is conducting research into the career expectations and backgrounds of a population of over 200 entering and first-year students in architecture and interior design. Some have observed the profession first-hand, but a larger number of class entrants credit their own research into career options as the dominant source of their interest. This is an important factor in understanding career expectations, since the image of the design professional that a student intends to become is shaped by the myths and realities perpetuated by history, media, popular anecdotes, and public relations.

Preliminary findings suggest students are confident of their professional choices before beginning their academic programs, with 71 percent of them stating that they have a "very strong commitment" to a design career. Their expectations for the career itself are similarly high. When asked to predict their personal satisfaction 10 years after graduation, beginning students responded by predicting they will be "satisfied" to "highly satisfied" by varied aspects of their career such as enjoyment of day-to-day activities, degree of independence, amount of creativity, growth opportunities, influence, colleagues and clients, work-family balance, consistent values, mission, job security, and compensation. Entering students realize that design provides opportunities to exercise creativity and independence, to serve a mission of improving the built environment, but not necessarily to have job security, lucrative compensation or an easy work-family balance.

After exposure to design education, however, students begin immediately to adjust their expectations. Predicted career satisfaction scores drop within the first year in several areas. But what is particularly fascinating is that these predictions seem to depend upon the nature of the educational program. First-year students enrolled in a work-study program (consisting of both academic work and practice in an office setting) lower their expectations of future satisfaction by 4-8 percent. But first-year students enrolled in exclusively academic programs (without a practice component) show even higher levels of disillusionment: they lower their expectations of future satisfaction by 12-18 percent. Most notably, they lower their predicted compensation levels by 22 percent.

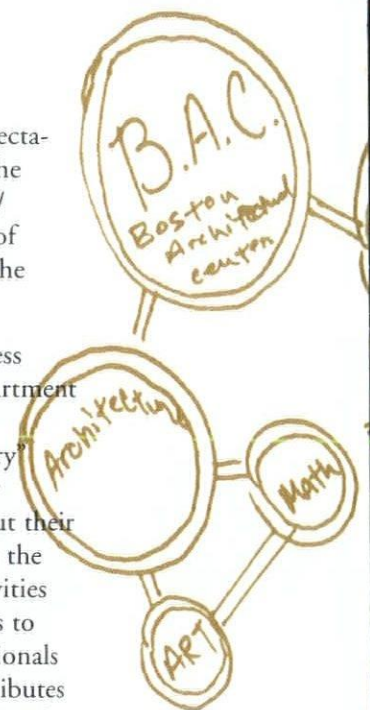
These findings offer a twist on conventional thinking. The broadly accepted implication that familiarity breeds reduced expectations among all students is supported by the results of a recent parallel study conducted with individuals 20 years after graduation. The same questions elicited assessments that were 23-27 percent lower than those of today's entering students. This decline in satisfaction assessments could be characterized as a healthy shift from a conceptual ideal to a complex and well-informed view of the profession. The fact that average responses remain in the "satisfied" end of the spectrum suggests that design careers are ultimately satisfying to those who remain within the field, but the apparent decline in the level of enthusiasm raises concerns about the sources of professional attrition and the opportunities to address them.

And yet it is the rapid disillusionment of students enrolled in academic programs where they are isolated from the everyday practice of their chosen field that should be a focus of concern and greater study. A landmark study by educators Ernest L. Boyer and Lee D. Mitgang in 1996 looked deeply into the state of design education and found that survey respondents believed the greatest weakness of architectural education was the lack of integration with professional practice. Academic programs have traditionally maintained a separation from practice to protect and grow students' "theoretical" awareness; even institutions that have launched practice-based initiatives often keep the core academic experience distinct from practice. Preliminary analysis by the Boston Architectural Center suggests that students who are exposed to practice concurrent with their

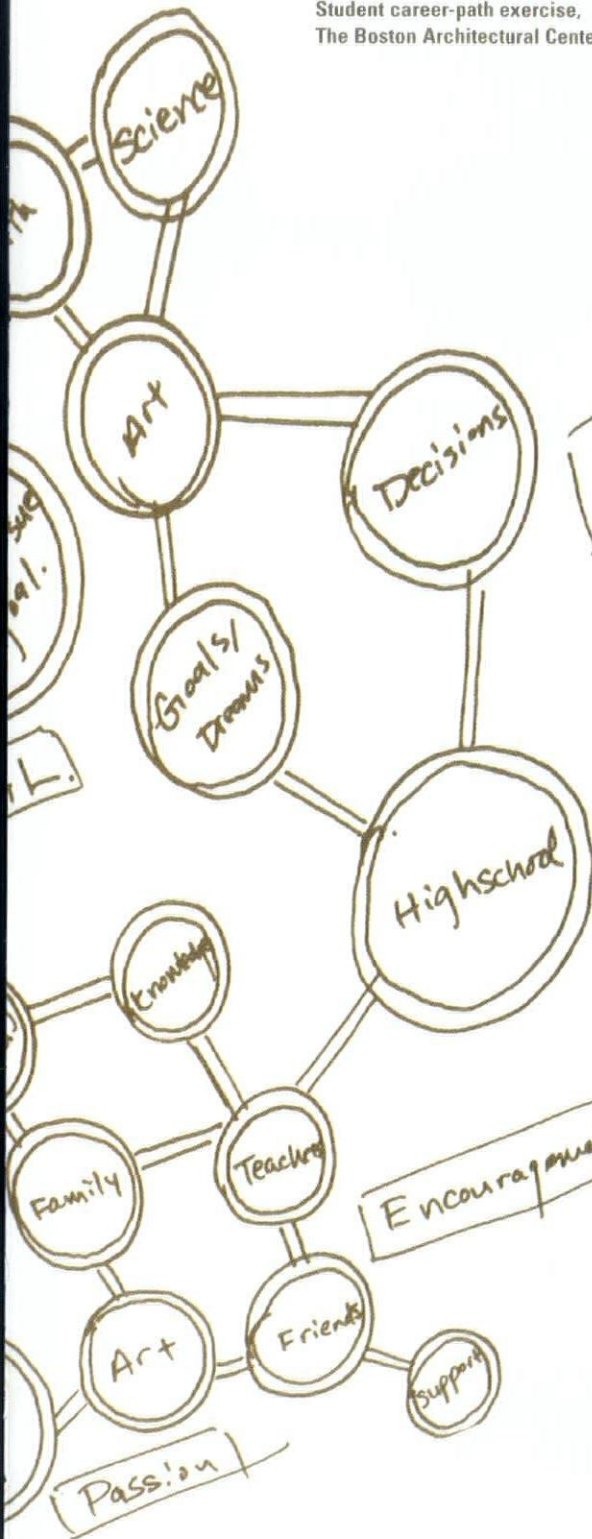
academic study are able to retain higher expectations for career satisfaction, at least during the early stages of their careers. Does the theory/practice divide truly serve the development of emerging designers by isolating them from the realities of their profession?

Researchers Chris Argyris of Harvard Business School and Donald A. Schön of MIT's department of urban studies and planning have found significant differences in the "espoused theory" of design professionals, which describes how practitioners would like others to think about their work, and "theories-in-use," which describe the actual theories that are implicit in their activities and behaviors. This "theory gap" contributes to reduced effectiveness experienced by professionals as they progress through the field, and contributes to a separation of the profession from its societal context. Dana Cuff, a professor at UCLA and author of *Architecture: The Story of Practice*, asserts that, "The primary purveyor of professional knowledge, both tacit and explicit, aesthetic and technical, is the academy." Clearly, academic institutions must bear primary responsibility for leading the effort to increase the congruence between expectations and reality.

Cuff observes that, although young architects perceive clearly the gap between career expectations and their realization, those who remain committed to the field continue their socialization into the profession by developing new expectations as they observe senior practitioners at work. Wilson Pollock, principal of ADD Inc in Cambridge, Massachusetts, observes, "When I was in the school phase of my life, I never imagined that I would develop a firm. When we were a 10-person firm, I couldn't imagine growing to 20, and later to 40,



Student career-path exercise,
The Boston Architectural Center



but these things happened.” In thinking about resolving the gap between expectations and experience, Pollock adds, “All generalizations are false. As you go through life, you’re presented with choices. I could have decided I wanted to design everything I touched. Instead I decided to share and form an organization and a culture that allowed people at all levels to participate in design.”

The expectations of designers throughout their careers are changed by many factors — mentors, firms, professional organizations, celebrity role models, the public, even the media — but academic institutions bear primary responsibility for the intellectual and social “care and feeding” of aspiring professionals during the critical foundation years. The gap between expectations and reality isolates practitioners from their social contexts, affects the relevance of architecture to the social agenda, and drives important contributors from the field entirely. Ultimately, it leaves the profession vulnerable to incursion from allied fields. The profession — practitioners and academics alike — must illuminate and shape expectations that are both realistic and malleable, that will also leave open possibilities for greatness.



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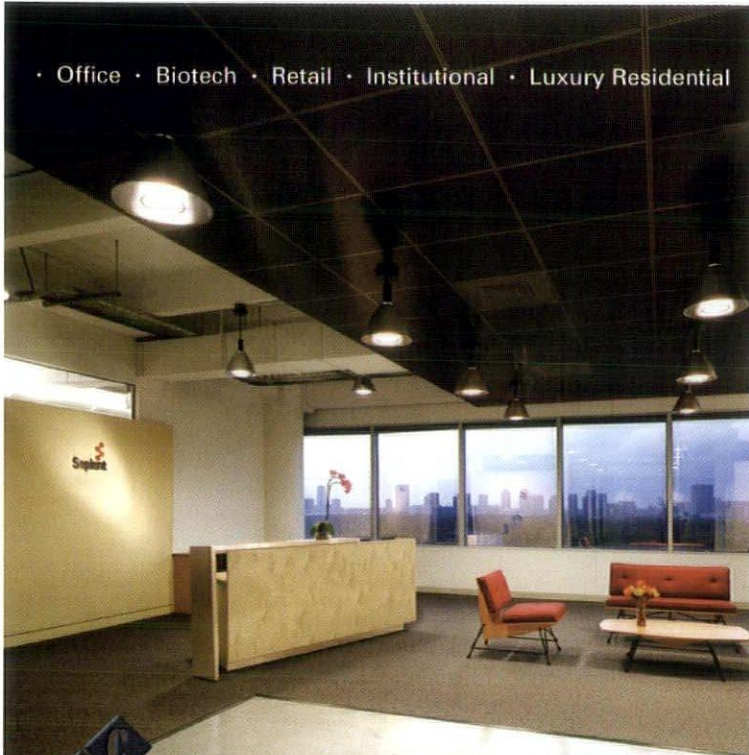
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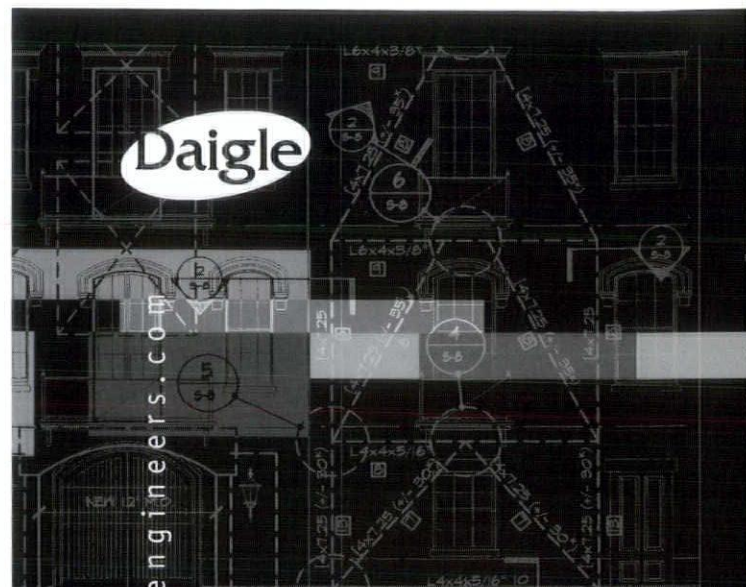
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Hearing Voices

John Cary, Jr., Assoc. AIA,
talks with Jeff Stein AIA

JOHN CARY, JR., ASSOC. AIA, is the executive director and co-founder, with Casius Pealer, of ArchVoices, a nonprofit organization and think-tank on architectural education and internship. He received his M.Arch degree from the University of California, Berkeley, where he is also a PhD student.

JEFF STEIN AIA is the architecture critic for *Banker & Tradesman* and professor of architecture at Wentworth Institute of Technology. He recently served as commissioner of education for the Boston Society of Architects and is a member of the editorial board of *ArchitectureBoston*.

JEFF STEIN: A web search using keywords like "architecture," "education," and "internship," inevitably brings a searcher to ArchVoices.org, a website with almost 14,000 subscribers and the major online forum for current and future interns in the practice of architecture. In the report, *Building Community: A New Future for Architecture Education and Practice* that came out in 1996, Ernest Boyer and Lee Mitgang wrote this about internships: "Internships before and after graduation are the most essential link connecting students to the world of practice. Yet, by all accounts internship is perhaps the most troubled phase of the continuing education of architects." Was it this report or the troubled condition of internship that led you to start ArchVoices?

JOHN CARY: I was just graduating from high school when that book came out, believe it or not. It wasn't until about four or five years later that it made an impression on me and I have since read it dozens of times. Actually, it was the 1999 Internship Summit that the five collateral organizations of architecture organized that really

motivated us to start ArchVoices. That conference presented internship in the same light as Boyer and Mitgang had, as part of the continuing education of an architect. Architectural education gets a significant amount of coverage within the architectural press and even sometimes in the popular press. Internship has somehow evaded a lot of that criticism and a lot of that focus so we have tried to bring internship to light in the same way as education.



JEFF STEIN: In the book, *Reflections on Architectural Practices in the '90s*, Mack Scogin wrote, "Perhaps the most critical question is how is one to conduct oneself as an architect?" That apparently isn't taught in school. It only begins to happen in internship.

JOHN CARY: I certainly think that is the case. But most people have this idea that we start thinking like architects at a very early age before we even go to architecture school. But it is actually the profession that defines when one can call oneself an architect.

JEFF STEIN: In fact, that has been one of the issues at the Internship Summits, both the one that ArchVoices grew out of in 1999 and the more recent one in 2002. What should architectural interns be called, and is licensure the threshold one must cross before one can call oneself an architect?

JOHN CARY: Well, it really depends who you talk to. The state regulation boards as well as NCARB [National Council of Architectural Registration Boards] are very protective of the title of "architect." It is employers who have created names like "graduate architect" or "junior architect" or have simply discarded the whole architect terminology and call individuals "project managers" or other titles.

JEFF STEIN: Designers.

JOHN CARY: Yes, designers as well. *The AIA Compensation Survey* used to list young professionals as Intern I, Intern II, Intern III, and Architect I. And you only achieved Architect I after you were licensed. In its 2002 report, the AIA realized that threshold no longer exists and that there is certainly no distinction between those who are licensed three years out of school or those who are simply three years out of school. So it has adopted the term "non-registered architect." This basically shows that internship essentially ends after three years whether or not you become licensed. There are actually more unlicensed professionals working in architecture firms at this point than there are licensed professionals — 52 percent.

JEFF STEIN: So how did ArchVoices grow and what are you trying to do with it?

JOHN CARY: After the 1999 Summit, a small group of young people were concerned about what would come next. There was no real commitment to any follow-up efforts by the collateral organizations. ArchVoices started as an e-mail exchange among a few friends and acquaintances, initiated by Casius Pealer — he was at that time based in the West Indies literally living in a banana field while he was serving in the US Peace Corps. We soon realized that young professionals were dying to have an outlet or a forum to discuss issues. We decided to focus on providing resources, editorials, and opinions through our newsletter and that has remained one of our core competencies.

JEFF STEIN: What made you imagine that you couldn't do all of that through one of the existing collateral organizations?

JOHN CARY: Well, we have always been very involved with the collateral organizations. In fact, at the time that ArchVoices was founded, I was the 1999–2000 AIAS [American Institute of Architecture Students] National Vice President. But we realized that these organizations, just like our own organization, have limitations. We thought it was important to have an independent voice. We started to collaborate in pretty formal and significant ways with the collaterals, but there was certainly a time when we were looked at with some adversity because people didn't know what direction we were moving in or what we ultimately aspired to be. I think it has become clear that we are in fact aspiring to be a think-tank, meaning that we are uniting research and opinions and statistics and ideas. We are at the point where we are quite valued by the collateral organizations. There are obviously individual exceptions.

JEFF STEIN: One of the interesting aspects about your website is the archive that you have developed about other organizations like NCARB and about the evolution of the whole idea of internship.

There are actually more unlicensed professionals working in architecture firms at this point than there are licensed professionals.

JOHN CARY: One of our goals from the beginning has been to provide a context for these discussion.

JEFF STEIN: Your use of the word “context” is an important one. The Latin root of that word means literally “to weave together.” It has to do with coherence and creating something that is able to hold together over time. And it seems to me that this is pretty much the goal of internship — to provide a context for one’s behavior as an architect

JOHN CARY: Very much so. I think an even greater issue, however, is that internship is many different things to many different people, including employers, mentors, and the interns themselves.

JEFF STEIN: That is one of the troubling aspects of this. Internship for the intern might be a very different thing than it is for that intern’s employer.

JOHN CARY: That’s not surprising. Firms are profit-driven, they are concerned with the bottom line, they have deadlines to meet, and clients to please. And the program that we use to define internship, the Intern Development Program [IDP], somehow takes a backseat to a lot of these other issues. Unfortunately, the IDP hasn’t reacted to this reality. It has remained unchanged for nearly 25 years.

JEFF STEIN: But the practice of architecture has changed in significant ways. The computerization of the profession and of education has been a huge change. And there’s also been a change in attitude on the part of employers toward their interns — the notion of mentorship, a leftover from the old apprenticeship model, seems to have dissolved. That model doesn’t work quite so well when interns are the ones with all of the computer skills, and the people who used to be the mentors are the ones who need the skills of their interns.

JOHN CARY: Well, there is certainly some thinking that there is a generational gap among those people who are using the computers and those who are not. But it is definitely not as simple as saying older principals can’t use the computer and young interns can. I know a lot of graduates who despise the computer probably even more than their employers. They have grown to resent it because they often spend a whole lot of time doing CAD [computer-aided design].

JEFF STEIN: Does ArchVoices take any positions on how IDP works and how it might change and on the need to change it?

JOHN CARY: We certainly do. We’ve advocated for many of the recommendations made by the national organizations themselves that have stalled for one reason or another. For example, something called the “Collateral Internship Task Force Final Report” made nine recommendations in 2001, ranging from the need to integrate practice and education to strengthening reciprocity between states and other countries to much more specific and controversial recommendations. The final recommendation is the real sticking point and that is the idea that graduates of architecture schools be called “architects” upon graduation. A more recent recommendation stemming from the 2002 Internship Summit is that IDP should be less of an *intern* development program and more of a *professional* development program. We think that is a significant distinction. The interesting thing is that IDP was originally a voluntary program. It is now required.

JEFF STEIN: Yes. And I’ve read that it might revert to a voluntary program.

JOHN CARY: The reality is that it is already becoming voluntary because a lot of people are not entering it, or not completing it, or not taking it seriously, or worse, falsifying their records. NCARB is slowly dealing with that.

JEFF STEIN: What are some of the limitations of ArchVoices?

JOHN CARY: There are a lot of limitations. The first is that it is essentially a volunteer effort and it is working under the goodwill of just a few people who are committed to this exchange among young professionals about issues affecting them. There are really very few funding opportunities to support this kind of an effort. The national organizations are resistant. They may support us morally and mentally, but putting money into this would be an official stamp of approval and some of them are just too conservative to really take a stance. So funding is a problem. But energy is not. We have committed people all over the country and the world. Initiatives like our recent essay competition demonstrate that people do want to be heard and do want to offer their suggestions and opinions. That is incredibly fulfilling and that is what motivates us from week to week.

JEFF STEIN: The essay competition was a fascinating aspect of ArchVoices.

JOHN CARY: That was by far the most rewarding and fulfilling for us. It just took off in ways we never expected and it involved so many new people. I think I have a pretty good tap on the pulse of interns and young professionals and I knew only a couple of the people who entered. People took it as an opportunity to share their thoughts.

JEFF STEIN: I notice that the issues of diversity and of women in the profession of architecture play quite a role in the writing and opinions in ArchVoices. Is internship a place where some changes could be made that would be more supportive of diversity within the profession?

JOHN CARY: I think it happens at a number of places. At this point roughly 45 percent of all candidates for professional degrees are women.

JEFF STEIN: And only about 10 percent of registered architects are women.

JOHN CARY: Right. And in between, roughly 30 percent of interns are women, so we have already lost 15 percent upon graduation. Then after internship you lose another 20 percent. As Kathryn Anthony points out in her book, *Designing for Diversity*, internship and registration fall at a time when many women are starting families and have other responsibilities. As a think tank on education and internship, ArchVoices considers minority and women issues as crucial parts of the whole discussion.

JEFF STEIN: What is ArchVoices doing entrepreneurially so that we can be sure that it will continue to survive and grow?

JOHN CARY: We continue to submit grant applications. Recently we received a grant from the Graham Foundation, and we also have a very strong relation with a relatively new foundation called the Enkeboll Foundation for the Arts and Architecture. We continue to rely on the goodwill of AIA components like the Boston Society of Architects and AIA Minnesota as well as firms and schools. The one thing I want to clarify is that it doesn't take much money to do what we are doing. That is yet another reason why I think the collateral organizations are not fulfilling their missions in this arena. We have some people who ask why we aren't part of the AIA, that this is something that the AIA should be doing. We totally agree, but it is not doing it.

JEFF STEIN: In the end, what do you think is the usefulness of internship?

JOHN CARY: I think internship is a place that has real potential to expose the connections between education and practice, meaning between schools and firms, and I don't think it is thought of in that way at all. People, mainly the registration boards and NCARB, think of it as a very individual process leading to registration. It can be much more than that. I think it should be about developing the entire profession more than about developing individuals. ■ ■ ■

ArchitectureBoston recently asked interns and principals from six prominent firms:

If you were establishing a new school of architecture, what are three elective courses you would add to the curriculum?

- 1 **Philosophy**
- 2 **Reading cultural artifacts**
- 3 **How to make (something)**
*Christine Gaspar, Intern
Schwartz/Silver Architects
Boston*
- 1 **Studio art**
- 2 **Human and social interaction**
(psychology, anthropology, or public relations)
- 3 **Business (especially negotiation skills)**
*Warren Schwartz FAIA, Founding Principal
Schwartz/Silver Architects
Boston*
- 1 **3D computer modeling and animation**
- 2 **Perspective sketching**
- 3 **Budgeting**
*Amy L. Cheng, Intern
Shepley Bulfinch Richardson and Abbott
Boston*
- 1 **Entrepreneurship and firm management**
- 2 **Environmentally sustainable design**
- 3 **Negotiation, listening, and collaboration**
*Elise F. Woodward AIA, Principal
Shepley Bulfinch Richardson and Abbott
Boston*
- 1 **Digital photography and imaging**
- 2 **Project management basics**
- 3 **A survey of domestic American architecture**
*Joey Favaloro, Intern
Cambridge Seven Associates
Cambridge, Massachusetts*
- 1 **Photography**
- 2 **Building technology (with engineers)**
- 3 **Communication (starting with listening and moving on to negotiating, illustrating, sharing, clarifying)**
*Peter Kuttner FAIA, President
Cambridge Seven Associates
Cambridge, Massachusetts*

- 1 **Municipal politics**
- 2 **Chemistry**
- 3 **Migratory behavior of sub-Saharan predatory mammals** (There are lots of things worth learning that have nothing to do with architecture.)
*Tim Cooper, Intern
Tsoi/Kobus & Associates
Cambridge, Massachusetts*
- 1 **The art of entitlement: civic responsibility in modern urban environments**
- 2 **Draw more: drawing by hand**
- 3 **Color and materials**
*Richard L. Kobus AIA, FACHA, Senior Principal
Tsoi/Kobus & Associates
Cambridge, Massachusetts*

- 1 **Making architecture happen (developing construction details of a studio project)**
- 2 **Passive air play (passive temperature control systems)**
- 3 **Plumbing, drainage, and the cistern** (how water flows, what we do with it, what we could do with it)
*Penapa "Noy" Hildebrand, Intern
Perry Dean Rogers/Partners
Boston*
- 1 **Current cultural issues**
- 2 **Public policy and management of space**
- 3 **Digital media versus the hand-drawn idea**
*Martha Pilgreen AIA, President
Perry Dean Rogers/Partners
Boston*

- 1 **Sculpture/painting**
- 2 **Web site design**
- 3 **Music**
*Nicole Kuhar, Assoc. AIA, Intern
Steffian Bradley Architects
Boston*
- 1 **Physiology**
- 2 **Poetry and music**
- 3 **Business practice**
*Peter Steffian FAIA, Chairman of the Board
Steffian Bradley Architects
Boston*

On the last day of high school, a teacher sits with two students. She proceeds to tell them that to become professionals, their formal education is half complete. They will need anywhere from 10 to 15 additional years of structured and sometimes painfully intense higher education and formal training. They are told that success within their profession is contingent on achievement at the highest level. One must be as facile with theory as with practical problem-solving. One must be of upstanding moral character and hold true the principles of public welfare and safety. One must care deeply about people: how they live, how they feel, how they experience the world. The teacher proceeds to hand an architect's scale to one and a physician's stethoscope to the other. The students embark on their respective journeys that will bring both great challenges and great rewards.

The two reunite many years later to find that much of what their teacher described held true. But they realize that they are the products of different processes of preparation. The architect has been challenged to navigate between distinct centers of education and practice. Upon graduating from architecture school, he yearned for the tangible expressions of his ideas but still remained years from making significant contributions to real buildings for real clients. He rejoiced in the title "architect" upon passing his registration exam after several years of his internship development program.

The doctor had a different experience. Upon graduating from medical school, she was a "doctor" sworn to the Hippocratic oath. She had taken and passed two of three parts of her general licensing exam. She had — under close supervision — delivered babies, performed surgery, and treated cancer. During her subsequent residency, she refined her ability to leverage her immense academic knowledge in a practical setting. She became proficient in process and procedures. Her hands, eyes, ears, nose, and intuition were sophisticated tools of diagnosis and treatment. And she was on her way to making and trusting her own professional judgments.

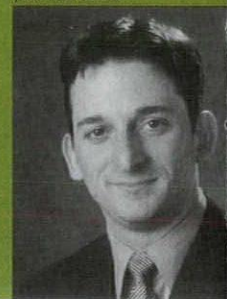
Her career preparation was not marked by academic achievement but symbiotic to it. Residents and fellows actually receive both salaries and diplomas from their institutions. These institutions — teaching hospitals — are centers of medical education and training. They are home to a sophisticated system of teaching, supervision, and

Compare/contrast: Learning from other professions

Architecture and Medicine

by George Takoudes AIA

photo: David Carmack



practical training. "Classes" are conducted in the form of rounds, hands-on experience, and full immersion in the practical arena. There is no end and no beginning to the cycle of instruction. Medical students, residents, and "attendings" (senior faculty) work-learn in these environments as both students and teachers. All are required, to some degree, to give lectures, present research or journal articles, and participate in clinical instruction. In fact, the etymology of the word doctor is "to teach." In teaching hospitals, everyone learns because everyone teaches.

For emerging doctors, the distinction between learning and working is not lessened; it is dissolved. This is in direct contrast to architectural education, and for several reasons this model does not easily transfer. Doctors literally perform their art with their own hands. Architects make representations of architecture and direct its execution by others. Doctors deliver care — patient-by-patient, case-by-case — in an intensely intimate environment. Architects work with a significant range of scale — from urban design to detail design.

The architect and the doctor, who later married, are now immersed in their work, each finding satisfaction and frustration in their chosen fields. Despite vast differences in their training, they have discovered they have much in common. After years of education and training, they find themselves prepared yet still learning. They are both inculcated with the ideals of professionalism. And they both approach professional practice with a profound sense of responsibility and respect. Even so, he still gets bad colds in the winter, and she complains that the kitchen needs redesigning. ■ ■ ■

George Takoudes AIA is an associate at Payette Associates in Boston. He earned his Master of Architecture degree in 1991 and became a registered architect 12 years after graduating from high school. His wife, Tamara Takoudes, MD, is a high-risk obstetrician and is currently in the 15th and final year of her post-high-school higher education-training. Although not the protagonists of this parable, their lives have followed similar paths.

Compare/contrast: Learning from other professions

Architecture and Law

by Jay Wickersham AIA



Jay Wickersham AIA graduated from the Harvard Graduate School of Design (SD) and Harvard Law School. He is a partner in the Cambridge, Massachusetts, law firm Noble & Wickersham LLP, specializing in construction and environmental law. He teaches planning and environmental law at the SD.

Let me be frank: I was miserable in architecture school. For three years I felt inadequate and confused.

When I decided to change careers some time later, I approached law school with trepidation. If I had found architecture school difficult and brutal, wouldn't law school — notorious for terrorizing students — be even worse? But it wasn't. I loved law school: it restored my confidence and made me feel that possibilities were opening up, not closing down.

Today the wounds of architecture school have healed (somewhat). It's clear to me now that I'm better suited to be a lawyer than an architect. But I also believe that there are some objective ways in which law schools serve their students better than do architecture schools.

The design studio was architecture school's greatest strength. The studio was all about learning by doing. We were forced to tackle all the complexities of a project — site, program, technology — and meld them into a coherent design. We learned to identify and choose among different concepts, and to develop those concepts in detail. By comparison, law school relied on a more passive format. Our professors posed questions to large classes, often with a hundred or more students. There were a couple of moot-court exercises in the first year, in which we briefed and argued a case before a panel of judges; otherwise, our grades were based solely on papers and exams.

The value of my design-studio experience, though, must be weighed against the harsh and often destructive criticism to which students were subjected, and the way that we were often pushed

to design in the manner of our teachers. I found the Socratic questioning of my law-school teachers fairer and more productive than most of my architecture-school crits. Law professors generally encouraged debate among competing viewpoints. Rigorous teaching was not seen as incompatible with preserving the students' dignity.

The two schools also differed in their approach to the professional's role. From the very first day of law school, it was drummed into our heads that a lawyer is an advocate. Our job was to concentrate our skills and efforts toward achieving our client's goals. Architects are advocates, too. They realize their artistic visions in the service of someone else's needs; their visions are built with someone else's money. But in architecture school, the client was virtually invisible. Our designs were criticized in terms of artistry, or technology, but rarely according to how well they satisfied the client's program.

Finally, architecture school promoted a narrow view of practice. The focus on the design studio never changed over the course of three years. Yes, design is hard; it takes dedication and patience and skill, and the studio is the best way for students and teachers to test and refine those qualities. But by teaching that design is the only thing that counts, both in school and in the profession, architecture school risked culling out students with other valuable skills to offer.

In contrast, after the first year, law students were encouraged to explore different aspects of practice — often by putting their newly learned skills to work outside the classroom. Students who were interested in courtroom litigation worked as legal defenders, in prisons or housing courts. Students aiming at academia spent much of their time writing and editing law-review articles. Students with specific interests could specialize in civil-rights law, or environmental law, or mergers and acquisitions. Many of my classmates have never even practiced law.

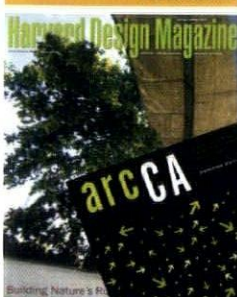
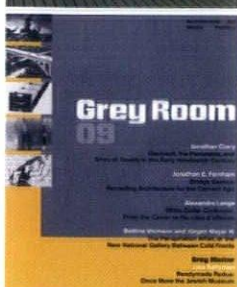
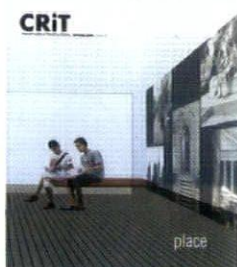
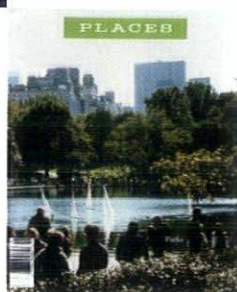
Despite these reservations, I'm glad I went to architecture school. It taught me how physical design shapes the world and shapes our lives. It taught me to synthesize information, to map out alternatives, to develop concepts with patience and rigor. These lessons have stuck with me ever since. Architecture school made me a better lawyer.



Covering the Issues

Periodical roundup

by Gretchen Schneider, Assoc. AIA



In this issue, "Covering the Issues" looks at academic journals...

The Rhode Island School of Design Department of Architecture's annual *WORK in progress* (Issue 6, Spring 2002; Issue 7, Spring 2003) is about as straightforward a showcase of school work as one could hope for. Simple, clear text and graphics place the emphasis where it should be: on projects and the ideas behind them. Like RISD itself, each article in this slim volume focuses on the process of exquisitely making something real. Occasional phrases such as "tectonic investigation" and "cogent articulations" seem intended to remind us this place intellectually holds its own. But then an author complains about unplugged extension cords, reassuring us that the wicked-smart RISD crowd also possesses a great sense of humor.

CRiT magazine, representing the category of "student-led idea journals," is published biannually by the American Institute of Architecture Students. Elegantly assembled, *CRiT* showcases design projects and articles by students of all levels and faculty of all ranks from colleges and universities across the country. Sound egalitarian? It is... which sometimes works and sometimes doesn't. In the "urban issue" (Fall 2002), for instance, diverse geography belies strangely homogeneous views, as conservative New Urbanist-like perspectives take over in annoyingly teacherly tones. (Isn't it the next generation's job to be radical and to challenge the current status quo?) "Place" (Spring 2003), however, is excellent. Asking open-ended questions about what "place" is and how we make it, this issue features places both virtual and physical.

Places and *Harvard Design Magazine* represent the academy's intersection with the "real" world. *Places* is editorially based at Pratt Institute and the University of California/Berkeley, and published by the Design History Foundation. *HDM* is from, well, Harvard. Contributors to both are established experts in many

different fields, and most are faculty members. In separate ways, these journals each intelligently consider the design of the entire built environment — meaning all that surrounds us, not just buildings. Both also address architecture's broader cultural, physical, and intellectual contexts with an eye toward effecting real change. Reading *Harvard Design Magazine* is sort of like watching James Bond: the sophisticated 007 entangles in the global debates of the day (whether Cold War spies or feminist politics) as his technogadgets foreshadow our future. (Those wristwatch camera phones weren't so far off, after all.) Likewise, *HDM*'s sophisticated themed issues tackle timely concerns — whether environmental destruction (Spring/Summer 2003) or rampant consumerism (Fall 2002/Winter 2003) — while incorporating discussions of futuristic research that someday might not sound so far-fetched. Imagine, for instance, lighting and heating only the air around our bodies — where we truly need it — rather than the enormous mostly-empty volume of a room. *Places* is more immediately applicable, featuring success stories such as San José's downtown redevelopment (Winter 2003) and public open spaces in Central Park, Bogotá, and Chicago (Summer 2003). *Places* is smart enough to include contributions by politicians and community activists — the people who help our design rubber meet the architectural road.

Lest you be led astray by such practical points of view, academic bookshelves are also full of scholarly journals geared towards discourse for discourse's sake. And it matters little whether or not we mere mortals understand. Relative newcomer *Grey Room* (from MIT Press) is a favorite in this category. (When I hit the phrase "sensory modalities" within the first few hundred words, I knew that this would be a good one.) Cheeky commentary aside, *Grey Room* is dedicated to "architecture, art, media, and politics"; the articles in recent issues 09 and 10 vary wildly — but delightfully. Some are obtuse, don't-leave-home-without-your-dictionary sorts, while others shed new light on the McCarthy hearings or describe tongue-in-cheek how Mies van der Rohe's National Gallery literally sweat (from condensation) in its Berlin Wall context. And then there's the author who takes readers from 19th-century courting rituals to Louis Sullivan's architectural ornament to modern bridge construction. You have no idea how he pulls it off, but it's a fantastic ride.

Although it's not an academic journal, *arcCA*, the quarterly journal of the AIA/California Council, has published an issue that is a must-read for anyone who cares about architectural education: "Common Knowledge" (Spring 2003). Perhaps most revealing are the descriptions submitted by nine California architecture schools of coursework geared to address realities of architectural practice. ■■■

Gretchen Schneider, Assoc. AIA, teaches the architecture studios at Smith College and maintains a practice in Boston.



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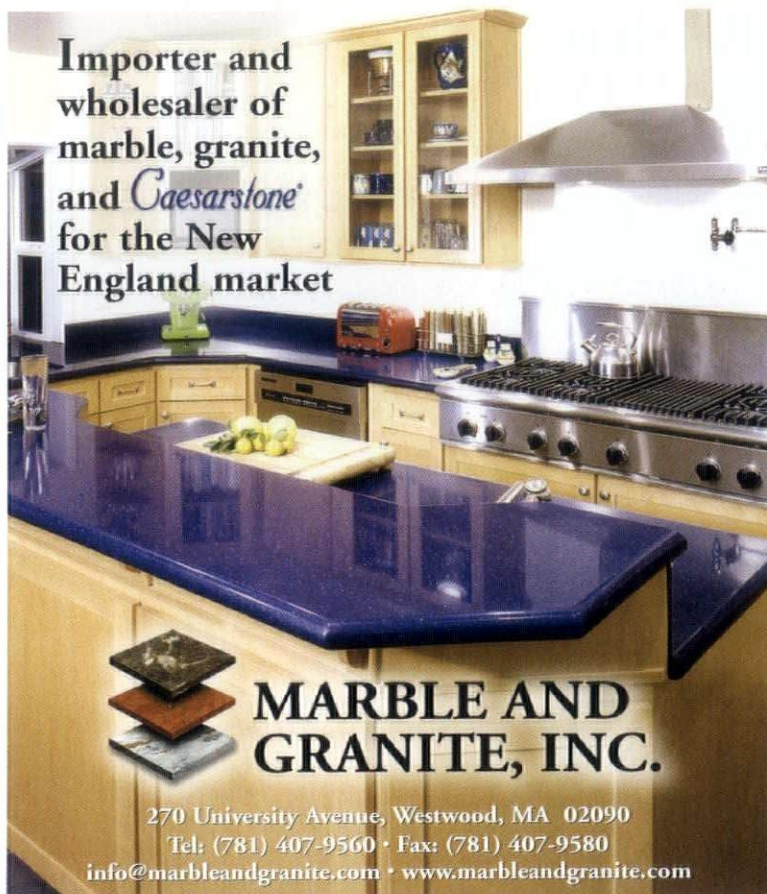
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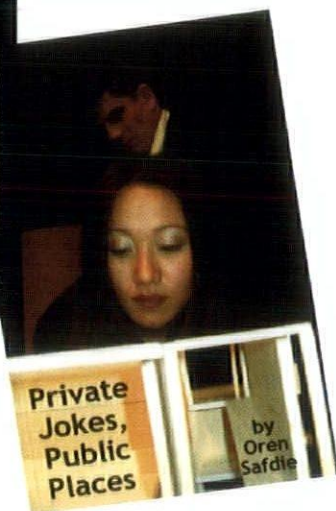
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Books

Private Jokes, Public Places

by Oren Safdie
Playwrights Canada Press, 2001

Reviewed by
Gretchen Schneider, Assoc. AIA



The scene opens at Margaret's final review. She's presenting her design project to an assembled jury of experts, at an unnamed elite American architecture graduate school.

For those who wonder what it's like inside the belly of the beast, this is it. For those who remember, it'll send chills up your spine. For those who work in the academic world (as I do), ouch! Who said that the sharp knife would hurt less?

Private Jokes, Public Places is the smart, provocative play by Oren Safdie that offers an insider's view to architectural academia on the most intense and important day of the entire school year while revealing how absurd the scene can be. There are four characters: our heroine, Margaret, a bright, talented, and hard-working Korean-American architecture student; William, her studio professor with limited "real" experience and a questionable close relationship with Margaret; Erhardt, a German architect; and Colin, a British architectural theorist. Erhardt and Colin, both presumably established and experienced, are serving as guest critics to discuss and critique the students' projects.

Of course what they do discuss and critique is anything but Margaret's

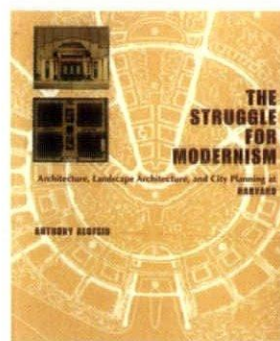
work, despite her best efforts to turn the talk toward her design. With long-winded diatribes, arcane archibabble, and biting verbal repartee alternately hilarious and infuriating, Erhardt and Colin lead increasingly personal attacks on Margaret, her race, gender, religion, outfit, and her conviction that the Modern Movement failed. If anyone questions why architectural education has been the target of vigorous criticism this past decade, this is it. *Private Jokes, Public Places* paints a damning portrait of the hyper-theoretical, quasi-intellectual, arrogant rambling that passes as architectural discourse at more than one elite design school. Safdie has recreated talkitecture at its finest.

Safdie expertly captures the cadence, vocabulary, tone, and terror of an architecture jury experience as only an insider could. Indeed, having studied at Columbia University's Graduate School of Architecture and as the offspring of architectural giant Moshe, Safdie the younger knows intimately the world of which he speaks.

Growing more stubborn, clear-headed, and articulate as the inquisition progresses, Margaret's character represents frustrations and ambitions that many students will find familiar. Margaret argues that good architecture must transcend fashion. She criticizes the spectacle of school where the ridiculous is rewarded and meaning is abandoned in favor of glitzy eye-candy computer graphics. Finally, with a nod to Howard Roark in *The Fountainhead*, Margaret becomes the monologued voice of passionate ideals, albeit of the revised, anti-modern sort. This time, our heroine cries out for an architecture of places that "regular" people might find comfortable. How radical.

Performed to critical acclaim in California and New York, *Private Jokes, Public Places* has sent audiences (or at least critics) home howling with laughter. School's not really that bad, right? Or is it...

Gretchen Schneider, Assoc. AIA, maintains a practice in Boston and teaches the architecture studios at Smith College.



The Struggle for Modernism: Architecture, Landscape Architecture and City Planning at Harvard

by Anthony Alofsin
W.W. Norton & Company, 2002

Reviewed by
Robert Taylor AIA

The core strength of a design school, or an architecture firm, springs from in-house talent and culture more than famous figureheads or fly-by-stars. Harvard's Graduate School of Design (GSD), dominant by size and influence, exemplifies this. Around 1950, it was considered the world's best, a verdict later reversed by Klaus Herdeg in *The Decorated Diagram* and, more popularly, by Tom Wolfe in *From Bauhaus to Our House*, who accuse Harvard of design education's greatest mistakes. Flip through Herdeg's portfolio of evidence and you might concede that point. Anthony Alofsin's excellent history of design education at Harvard portrays GSD culture with depth and detail missing from those rants, illustrated with a counterportfolio of brilliant student work and a chronicle of curricular and faculty struggles.

Alofsin's history depicts the years 1895 to 1995, focusing on the GSD at its peak of influence, when postwar graduates Paul Rudolph, I.M. Pei, Philip Johnson, and others had their theses published worldwide in 1950 in *L'Architecture d'Aujourd'hui*, and landscape grads Dan Kiley, Garrett Eckbo, and Hideo Sasaki emerged to dominate their field. GSD teachers, too, dispersed everywhere to rework design education along Harvard lines: William Holmes Perkins made the Penn architecture department a powerhouse of the '60s, Robert Geddes built Princeton's program, and Sam Hurst became dean of

architecture at Auburn and later the University of Southern California.

Legend holds Walter Gropius as the Sun King of this mythic era, but Alofsin presents the facts to instill Joseph Hudnut as the story's key figure. A leading educator and proponent of Modernism when appointed dean of design in 1936, Hudnut consolidated three departments into the GSD, envisioning a modern curriculum based in socially relevant design problems and collaboration among disciplines. Hudnut — who hired Gropius as chairman of the architecture department — oversaw the success of the GSD and also its unraveling. Hudnut increasingly resisted Gropius' efforts to strip history and drawing from the curriculum, stack the department with sycophants, and reduce design to pseudo-science. He coined the phrase "post-modern" in his 1945 essay decrying the absence of spirit, culture, and emotion in international functionalism. In 1950, he forced the retirement of Gropius, here seen as a brilliant ornery grump. By 1953, the GSD was collapsing from internal rancor when Harvard President Nathan Pusey personally intervened, naming Josep Lluís Sert as successor to both Hudnut and Gropius. Sert restaffed the school with Corbusier sympathizers to humanize modern design education and another remarkable but unstable period began its run.

Alofsin's text and footnotes constitute a heartfelt appreciation for GSD mainstays, like librarian Katherine McNamara (35 years) and historian Eduard Sekler (50 years). Unsung lifers and youthful optimists populate this portrait of an imperfect but evolving culture of design education, the endeavor of many to define and transmit teachable values of Modernism.

Robert Taylor AIA is a principal of Taylor & Burns in Boston.

First House

by Christian Bjone
Wiley-Academy, 2002

Reviewed by
Robert J. Miklos FAIA

Christian Bjone's *First House* chronicles the early residential commissions of the first generation of architects trained at Harvard during the Gropius years, 1937–1952. These idealistic young architects attempted to translate the ideals of “European Modernism” to the American situation — work that gained the less-than-flattering label of the “Harvard Shoebox.” Bjone has selected eight architects to represent the group: Edward Durrell Harris, Ulrich Frazen, John Johansen, Philip Johnson, Louis Gores, Eliot Noyes, I.M. Pei, and Paul Rudolph. Along with their youthful instructor Marcel Breuer, these designers would later become the leading voices of American Modernism during the post-World War II era.

Bjone organizes the book as “portfolios” including several projects by each architect and featuring their “first house.” The portfolios are documented in photographs (including informal family shots) and drawings from the period; each is preceded by a short description highlighting the designer’s theoretical or philosophical interests and their impact on the basic typology of the box.

Unfortunately, the author’s commentary does not provide fresh insights, but simply recapitulates new theories about the transition of socially engaged, idealistic European Modernism (“Modernism as ideology”) into a predominantly formal and pragmatic American Modernism (Modernism as style). Bjone’s ideggerian notion that modernism was passed like a torch from enlightened exiled European teacher/practitioners to wealthy but naïve American Harvard students is historically inaccurate and ignores the larger influences in the development of American modernism, including the work of late 19th-century and early

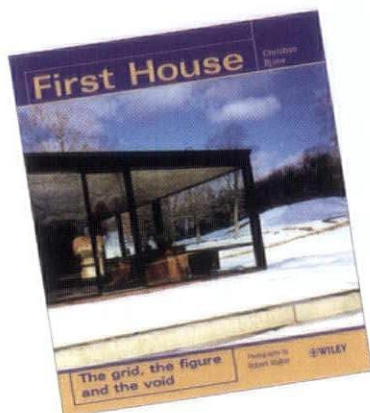
20th-century American practitioners. Bjone also falls short of offering connections between these early works and the mature work of the architects represented.

Bjone attempts to provide insights into the spirit and impact of the “moment” in a section called “Spreading the Word Far and Wide.” There, he examines the influence of photographer Ezra Stoller, writer Peter Blake, and historian Vincent Scully through magazine articles and books as well as their own experimental first houses. Peter Blake’s Pinwheel house and Bridgehampton house truly capture the energy and innovative thinking of the moment. Vincent Scully’s unremarkable house and irrelevant comments should have been omitted.

In the end, the value of *First House* is in providing a black-and-white snapshot that gathers in one place the various formal investigations of early Modernism in suburban New York and New England.

In the afterword, Philip Johnson writes, “I hate this book for all that it has missed...but I love this book for what it has found.” From my own perspective, the work represented is so interesting and provocative that I would recommend the book, despite its theoretical shortcomings. I will caution the potential reader, however, that at \$75.00 you may find it priced at twice your expectation.

Robert J. Miklos FAIA is a principal and studio director at Ann Beha Architects in Boston.



Building Codes Illustrated: A Guide to Understanding the International Building Code

by Francis D.K. Ching and Steven R. Winkel FAIA

Reviewed by
A. Vernon Woodworth AIA

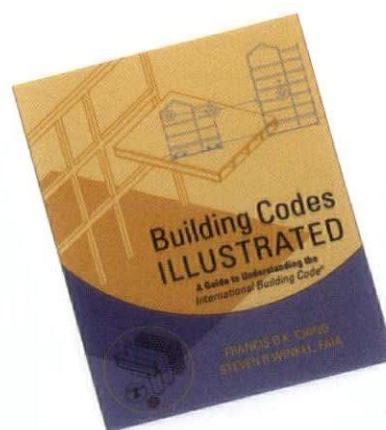
The first edition of the International Building Code (IBC) was published in 2000, signaling the end of the three previously competing model codes, the Uniform Building Code, the National Building Code, and the Southern Building Code. Jurisdictions across the country (most recently, New York City) are now rapidly adopting the IBC. Because the IBC purports to take the best from the three former model codes, and because it is part of a coordinated family of codes covering everything from zoning to plumbing, architects should celebrate this development. But codes are rarely a source of celebration in our profession, and learning a new code can be a daunting proposition indeed.

Building Codes Illustrated was written to make the IBC user-friendly. Steven Winkel participated in the development of the IBC and knows how important codes are to the profession. He is careful to explain the history and role of codes and does not assume prior knowledge of the subject. While the bulk of the book is formatted along the familiar “common code format” (such that chapters correspond to the topic format of a building code), this is much more than a traditional commentary volume, which seeks only to explain each code section. Winkel provides the overview and explains the meaning of the code without parsing each provision. His intent is to lead the designer through the code as a companion to the design process.

To this end, the graphics provided by Francis Ching are as much the means of communication as the text. Ching has not lovingly hand-lettered this volume as with his previous books (including *Architectural Graphics* and *Building Construction Illustrated*), and the illustrations are not hand-drawn. But the care to illustrate each concept in a manner that speaks directly to architects is as much a part of this book as his earlier works.

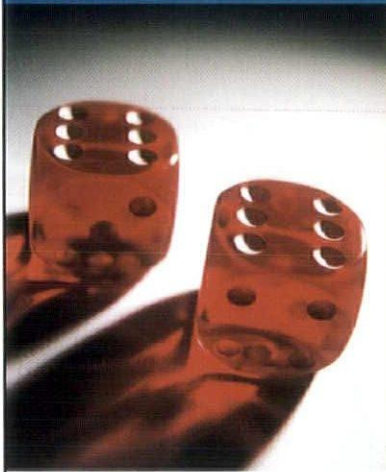
This volume is the entry point to a new era in codes, for students, practitioners, and builders. Because fundamental changes have been introduced, such as the formula for computing height and area limitations, we are going to need all the help we can get. This book can help break you into the new code, but it cannot replace it. The authors have based their volume on IBC 2000 while IBC 2003 is already out, and local jurisdictions will modify the IBC for various reasons. But if for you a picture is worth a thousand words, this book will do for you what no building code can ever do.

A. Vernon Woodworth AIA is a member of the Sullivan Code Group in Boston and is chair of the Boston Society of Architects Codes Committee.



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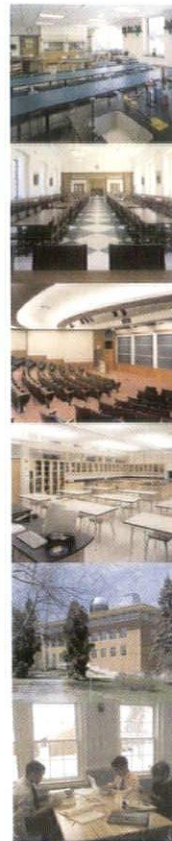
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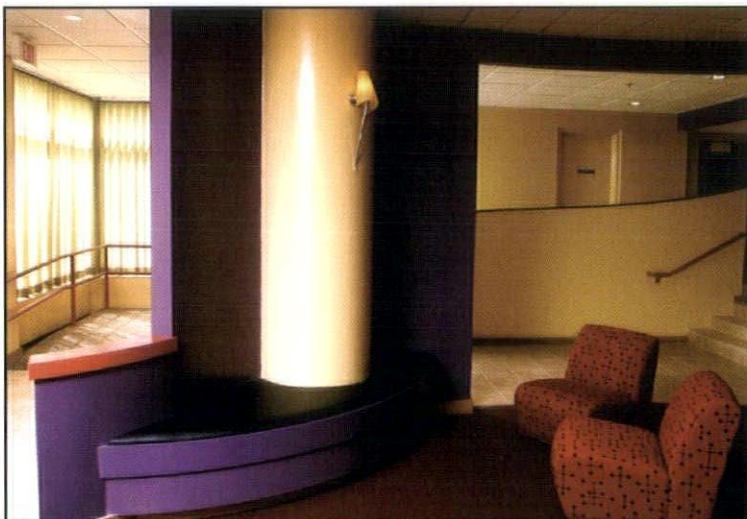
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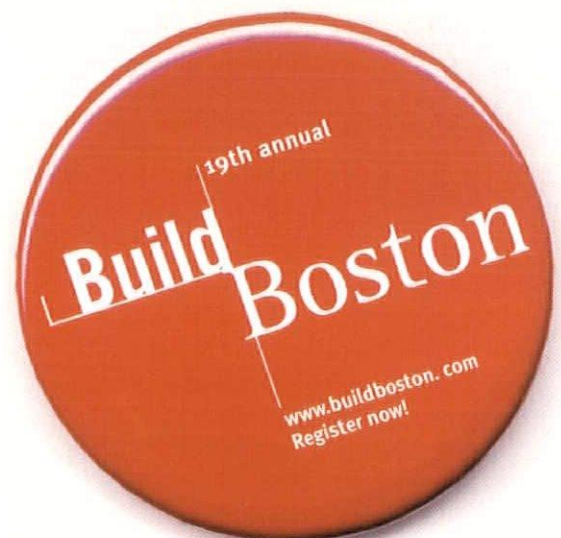


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Association of Collegiate Schools of Architecture

www.acsa-arch.org

The ACSA is a combination of science fair and teachers' room for architectural educators dedicated to improving the world of architectural academia — its conferences offer a place to talk about *what* they teach and *how* they teach. A terrific resource for aspiring students, the "Info for Students" page includes a history of architectural education that professionals will find fascinating, too.

Theban Mapping Project

www.thebanmappingproject.com

Yin Yu Tang: A Chinese House

www.pem.org/yinyutang

These two remarkable sites (both designed by Second Story of Portland, Oregon) represent astounding achievement in Web design that will open your eyes to the future of teaching the past.

ArchVoices

www.archvoices.org

OK, OK. So *ArchitectureBoston* has talked a lot about ArchVoices. Take a look at this website/think-tank/ newsletter dedicated to the issues of architectural interns and you will, too.

Ecole des Beaux-Arts

www.ensba.fr

Yup, the mother of all architecture schools is still here. Renamed Ecole Nationale Supérieure des Beaux-Arts — or "Ensba" — its focus is decidedly on art, beau or otherwise.

Bauhaus

www.bauhaus-dessau.de

Yet another architecture school that eventually became better known as a style than as an institution. Now run by the Bauhaus Dessau Foundation (its mission "to preserve the heritage of the historical Bauhaus" may qualify as the very definition of irony), it's a lot more energetic than you might imagine.

We're always looking for intriguing websites, however inexplicable the connection to architecture. Send your candidates to: epadjen@architects.org

Other Voices by Julia Gilbert

Oxford, England



For years I have been a grumpy resident of Oxford: too much traffic, too many tourists, too many students. Early last year as I lay in bed indulging my morning addiction to BBC Radio 4 (our equivalent of NPR), I heard nominations solicited for the ugliest street in Britain, and I idly thought: I ought to nominate Cornmarket.

Cornmarket is the central shopping street in Oxford, one block long. When I was first here, a brand-new graduate student at what I took to be the world's greatest university, I was told it was a "pedestrian precinct." In my innocence, I thought this meant it was safe to cross — no cars, of course. No cars, unless you counted taxis and delivery vans and the whopping great double-decker buses that bore down on me as I dashed from one side to the other. When Margaret Thatcher deregulated the public transportation industry, there was a famous bus war. No point in getting on one, because they couldn't move, but if you were so inclined, you could walk from one end of Cornmarket to the other on their roofs. These days the buses are banned, too, but there are still delivery vehicles, high-speed police chases, and ambulance dashes swerving around traffic barriers of the latest infrastructure-improvement project with holes deep and wide enough to bury any dissenting academic. Oh, but bicycles are banned.

I didn't nominate Cornmarket; someone else did. It came in first runner-up. Apparently it is only the second ugliest street in Britain. I happily noted that my grumpiness was almost officially Well Founded.

Unlike Cambridge, Britain's other great college town, Oxford is no longer fundamentally a medieval city. Its favored position on the River Thames means that it has always attracted as much industry — automobile in the 20th century — as scholarship, though in the run-down housing projects at the edge of the city these days there is probably more joy riding than test driving. There remain extraordinarily beautiful buildings — from the serene quadrangles of the oldest colleges to the elegant Victorian ironwork of the Natural History Museum and the hard angles and glass of the new institute that houses American studies — but it sometimes feels as if every fine thing stands next to something jarring or ugly or corrupt. And what is indeed beautiful is either so full of people trying to admire it (the tourists) or use it (the students) that there is no hope of simply standing back and looking.

So, sometimes, as I round the corner from Cornmarket onto Broad Street, I want to reject grumpiness, however well-founded, and remember instead my first view of the city. I arrived 24 years ago, a Marshall Scholar from Harvard (whose "river houses" are heavily influenced by the collegiate structure of Oxford). Finding no elevators or porters in the train station, I heaved

two enormous suitcases up one flight of stairs, over the bridge that spanned the tracks, down the next flight, and, streetside, hailed a taxi. We drove through the town and up Broad Street. On my left, the corner of St. John's College, then Balliol and Trinity. On my right, the massive stone heads of Roman emperors guarding the Old Ashmolean, now the Museum of the History Science, and behind it a glimpse of the cupola of the Sheldonian Theatre, the work of the young Christopher Wren. At last my own college, Hertford, where I learned what I should have suspected from my Latin — that the "porters" that every college still boasts are there to hang about the doorway, not to assist with luggage. At Hertford all the finest architecture is early 20th century, but I was to occupy an undistinguished 18th-century bit up in the eaves.

My corner of the college had been gutted and redone completely on the inside, though the outside, like so much of Oxford, was unchanged and (legally at least) unchangeable. Apparently no one thought, in redoing the whole interior, that it was worth indulging in central heating, and my tiny room boasted simply a narrow bed, wardrobe, and washbasin — simple furniture indeed and a world cold and stony enough to keep me wholly focused on the medieval monk who was the subject of my research.

But I had something more — a view of the very sky-edge of Oxford. All grumpiness dissolves as I, years later, recall the cold Sunday twilights of my first winter when the chapel bells of some 30 colleges rang changes for an hour, the call to evensong. I flung open the window and welcomed the chimes sounding across dozens of rooftops and spires. ■ ■ ■

Julia Gilbert works for the Rhodes Trust in Oxford. She is the author of the novel *Outward and Visible Signs* (Viking).



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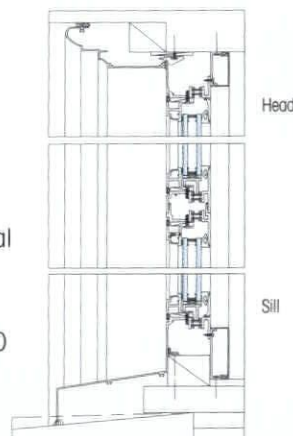
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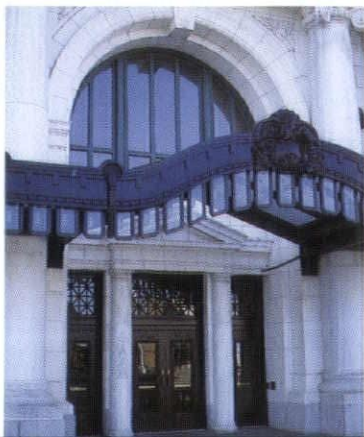
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