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LEARING TO LOVE THE BOX: A NEW GENERATION OF FACHITECTS TAKES ON A MODERNIST ICON

NEY FOR NOTHING: GETTING GRANTS IN ARCHITECTURE p. 78 DINAL'S LAST STAND: THE SAGA OF THE NATIONAL MUSEUM OF THE AMERICAN INDIAN p. 60 TION: FARÈS EL-DAHDAH ON LUDWIG AND EDITH p. 102 Spot the two terms that don't go together:

Suspended Ceiling
Grid-hiding Visual

Until now.

contributors





Jason Fulford

Jonathan Worth



Blaise Hayward



Farès el-Dahdah

Farès el-Dahdah is an architect and professor at Rice University in Houston. His writing has appeared in such publications as *Casabella*, *Assemblage*, and *Architecture* (he reviewed the design of Bernard Khoury's new Beiruit nightclub in our February issue). This month, el-Dahdah has reworked a fictionalized account of the tumultuous relationship between Chicago physician Edith Farnsworth and architect Mies van der Rohe (page 102) that was originally part of his doctoral dissertation, *Building Affectations: Architecture's Amorous Discourse*. "I wanted to write about buildings that participate in plots of seduction," el-Dahdah says. Writing from Farnsworth's point of view, he examines the gossip-riddled and volatile relationship that began as a friendship—fraught with rumors of romantic involvement—and ended in lawsuits and scars.

Photographer **Jason Fulford** visited two drive-in movie theaters to shoot pictures for Michelle Patient's story in this month's Practice section about the re-emergence of drive-in theaters (page 58). First, he went to Becky's Drive-In, in Berlinsville, Pennsylvania, for showings of *Frequency* and *Final Destination*, and then to the Circle Drive-In near his home in Scranton, Pennsylvania. Fulford's shots of Americana have also graced book jackets and various publications, including *The New York Times Magazine, Fortune*, and *Life*. His photographs of the threatened Florida community of Stiltsville appeared in *Architecture*'s July 1999 issue.

Blaise Hayward's photographs have appeared in *The New York Times Magazine* and *Esquire*, among other publications. *Architecture* has published Hayward's work once before, when he shot Julie Salles Schaffer—the rare example of a young female architect running her own firm—for the cover of our May 1999 "Young Americans" issue. For this issue, he shot portraits of Cheryl Young, the Executive Director of the MacDowell Arts Colony, and Kent Larson, an architect and researcher at MIT, for Christopher Hawthorne's story on architectural grants (page 78). You may have already seen **Zohar Lazar**'s paintings and illustrations in *The New York Times Magazine* or *The New Yorker*. Reminiscent of film noir movie posters from the 50s, Lazar's work painted in vibrant acrylics—evokes the true heyday of modern architecture and furniture design. Lazar himself collects furniture from that era, and he had originally considered becoming a furniture dealer. For this month's cover, we commissioned Lazar to illustrate Mies van der Rohe's Farnsworth House. Some of his illustrations also accompany Farès el-Dahdah's fictional rendering of the Farnsworth House saga (page 102).

Peter Papademetriou is currently researching and writing the first definitive biography of Eero Saarinen—the architect son of the Finnish architect Eliel Saarinen—with support from the Graham Foundation and the Arnold W. Brunner Scholarship of the New York Chapter/AIA. Papademetriou writes this month about the much-overlooked Suomi College, designed by Eero and Eliel Saarinen, in the Finnish-American town of Hancock, Michigan (page 72). He is a professor and director of the graduate program at the New Jersey School of Architecture at NJIT, and is preparing a major Saarinen exhibition and symposium, scheduled for Spring 2001 at Yale University.

"I love portraiture," says British-born photographer **Jonathan Worth**, "but I would prefer to work somewhere between portraiture and documentary photography. You forge a personal relationship taking portraits, whereas in documentary photography you're an observer. I want my work to exist between the two." This month, Worth shot Senator Daniel Patrick Moynihan (page 55), whom he described as having "a sense of humor about himself. But he only let me get half a dozen shots off, then thanked me and said good-bye." This year, Worth was selected by *Photo District News* as one of their 30 most promising young photographers under 30. He has contributed to *The Face* and *The Sunday Times*, among other publications.



Washington Sall, center stage for theatre and cultural events at Notre Dan Built in 1881, this modern Sothic structure was named by Pather Sorin himself, Notre Dame's founder, in honor of his great hero, George Washingto

editorial



Theory is Dead! Long Live Theory!

By Reed Kroloff

I witnessed the end of an era the other day. I saw Peter Eisenman, intellectual gadfly of the profession, face a roomful of fellow travelers and announce that "architects ought to stick to architecture." There was a sharp gasp from the audience, a cross section of luminaries from architecture's chattering classes: academics like Beatriz Colomina, Jeffrey Kipnis, and Sanford Kwinter, as well as avant-garde practitioners Zaha Hadid, Greg Lynn, and the mighty Rem Koolhaas. These were the party faithful, architecture's intellectual elite, who rode to fame on the theory train that rolled invincible through the 1970s, 1980s, and 1990s. And now, in the epicenter of architectural epistemology-New York City, the only place where a career can subsist solely on talk, the grand master of the gabfest was calling it quits. In short, theory was dead.

This bombshell came at none other than the "Anything Goes" conference, the tenth and final installment of Eisenman's grand *ANY* project (stewarded by his partner—and wife—Cynthia Davidson), a decade-long series of conferences and accompanying publications that assembled leading thinkers from a variety of disciplines (economics, sociology, philosophy, history, graphic design, and architecture, among others) to assess architecture's place in the world. Although design was always a part of the discussion, the spoken and written word were the real stars at *ANY* conferences.

ANY produced intelligent debate, largely unintelligible writing, and a forum for Eisenman's ongoing dominance of architecture's intellectual vanguard. But for many architects with more traditional careers, those who wrestled daily with clients, zoning, construction details, and budgets, *ANY*'s intellectual and social inaccessibility (this was an insider's game) rendered the entire enterprise a waste of breath. For them, Eisenman was the Pied Piper of Pedantry, a marginalized blowhard who'd never built anything more than a tower of Babel.

Imagine then, the shock at "Anything Goes" when Eisenman seemed to side with his fiercest critics. "We've lost the ability to discuss what is important in architecture," he growled. "We've exiled ourselves from the discussion of architecture." The room fell silent. The host had just told the guests that the party was over. In part, this was classic Eisenman: always the provocateur. But it also signaled his acknowledgement—and frustration—that *ANY*'s self-imposed exclusivity had limited its impact. Either way, his resignation was appropriate: The spirit had clearly seeped from the place.

And so theory as a subject unto itself (or in proper ANY jargon, theory *qua* theory) quietly left the stage, a victim of collective exhaustion. Any postmortem must also acknowledge a seemingly unending economic expansion that has hurled work at architects faster than they can take it. It's hard to pay much attention to theoretical discourse with clients knocking down your door.

Nevertheless, despite years of speaking in tongues, the Eisenmaniacs and their crowd accomplished something vital. Theory has become an integral part of our lives, our vocabularies: There isn't an architect around who can't sling lingo like "contextual," "post-modern," or "representation." And from Dutch masters like Koolhaas, and Van Berkel and Bos, to American tyros like Greg Lynn and Office dA, a project's theoretical and physical frameworks are now inseparable. The theory revolution has enriched the practice by helping us recognize that, commodity and firmness notwithstanding, much of the delight in architecture is intellectual.

I, for one, will miss the theoretical din, even though it always vexed me. But what of its crown prince? What of Peter Eisenman, whose remarkable energy and restless intelligence kept this ball rolling for so many years? His current manifest includes monuments, stadiums, cultural centers, and, thanks to Phyllis Lambert, the entire west side of Manhattan. "Theory is practice," he said with a wink at the conference, and turned to survey his next conquest.

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Power Mad

I want to congratulate you on your brilliant, red-covered "Power" issue (May 2000). It was provocative, opinionated, and informative—one of the first architectural magazines I have read from cover to cover in a long time. Also, thanks for lightening the blue backgrounds in your handsome graphic makeover; the black type is largely legible against it.

> Robert F. Gatje New York City

We out here in the land-beyondthe-Hudson just love to be reminded that those among the New York chattering class in their position as Masters of the Architectural Universe (MAU) have deemed to remind us who they think is on top. For a moment I thought I was reading Vanity Fair, but no, merely Architecture, which heretofore has showed and informed us about its subject. Thank you, again, for sowing your artificial pearls before us provincial swine. We are, of course, too feeble-minded to form our judgements from examining the work and deeds of the subjects of "Power" from the May issue.

> Douglas Schroeder Chicago

The state of architecture was revealed to me in the May "Power" issue. After reading about the "master," Frank Gehry (page 128), I turned the page and was introduced to the latest building by the real master of the built world, Santiago Calatrava (page 130). Again, it is shown that Calatrava is advancing the state of the art, in terms of form, function, and technology. He has taken up where Saarinen left off, showing us that architecture is about construction as well as design. Calatrava's buildings don't imply motion, they have motion. They react to the environment and the user. This is the future of architecture.

> Derek W. Dinkeloo Chicago

French Connection

I was happy to see coverage in your May issue of the Hôtel du Département de la Haute-Garonne in Toulouse, by Venturi, Scott Brown and Associates (page 138). Ned Cramer is on the mark in his assessment that the additional consideration required to appreciate VSBA's work does have its rewards.

Revisiting the Toulouse plans (I worked on this project in the early 1990s) reminded me of the architectural equivalent of what a professor once alarmingly described as a desirable way to spend a winter evening: reading one paragraph from James Joyce's Ulysses with a glass of good red wine. Indeed, understanding VSBA plans, in their rational and organic responsiveness to and artful accommodation of function, provides one of the great pleasures to be derived from experiencing their work. This combination of integrating solid planning with (relevant/ poignant/beautiful/critical) image is one of the distinguishing characteristics of VSBA's work and the reason for their aesthetic and critical success. The media and financial success of their historical/theoretical/professional foes, "The New Yorkers," depicted (as camp?) on page 122, pales in the final analysis.

> Ronald Evitts Ronald Evitts Architect New York City

Work For It

In response to Reed Kroloff's March editorial, "Architects Could Win the Next Election—if Only They'd Try" (page 15), since when is the AIA—an organization representing a minority of architects responsible for financing political lobbying that benefits the profession as a whole? How broad are the shoulders of the AIA expected to be to carry this profession forward? Let's stop expecting something for nothing!

> Edward Mojica Roseville, California

Been There, Done That

"The building that caught the jurors imagination the most," Diller + Scofidio's Blur Building, is a well-detailed and picturesque refinement of a project done 30 years ago: the Pepsi-Cola Pavilion at Expo 70, in Osaka, Japan. It was produced by EAT (Experiments in Art and Technology). Their collaborative, interdisciplinary effort transformed what would have otherwise been a generic world's fair dome by eliminating the architecture with an outer layer of fog. It was an ambitious effort and had many technical problems. However, the intended lack of an architectural image by having a cloud for a pavilion is the same gesture now produced by the Blur Building. For a history of the EAT project, read Pavilion by Experiments in Art and Technology (E.P. Dutton, 1972).

The lack of reference to the EAT pavilion by Diller + Scofidio or the editorial staff of *Architecture* and its jury raises several questions about the efforts made in awarding a project. Do the jury and *Architecture* staff try to establish their claim of a project's originality and invention? Is architectural history ignorant of the original project because it was produced by an artist's collaboration? Does ignorance make the old new?

> John Lindell New York City

Dull Cutting Edge

As an employee of the company leasing Eric Owen Moss' monstrosity (March 2000, page 104), I think it is important to point out its many flaws. Beyond the unbelievable fact that the roof leaks, causing us to need actual umbrellas perched over our computers, the acoustics are terrible. I can hear conversations across the building, but not the person sitting across from me. There is a continuous glare on my screen from the poorly positioned and all-too-many leaky skylights. The few rooms are low-ceilinged saunas. The glass-covered balcony is, upon closer inspection, a wind tunnel covered with fake rock resembling the material used on mudslide-prone hillsides. Of course, I've only been up there once: The owners informed us that we're not allowed up there because it is unsafe.

I am not without an aesthetic sensibility. I and many others who work here attended highly acclaimed art schools in the field of design. I enjoy modern architecture. This building, however, is a poorly conceived attempt at the trendy rehabilitation of what was clearly a beautiful raw warehouse space. I see the exposed ceiling beams and wish they weren't half covered by drywall. Since when is drywall cutting edge? This building is like an exploding condo or a hip retail outlet. I believe the architect to be a Gehry wannabe. I only wish it had been designed by the original, or left alone.

> Alivia Zivich Culver City, California

When Suburbs Attack

I thought Peter Blake pointed out an interesting issue regarding the lack of arcades in American cities (April 2000, page 65). I would like to add a critical reason for this phenomenon: the total lack of understanding by owners/developers and designers of cities and how people use them. Although the United States has some of the most excit-



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ing cities in the world—New York, Chicago, Boston—we approach the design of urban architecture with the same attitude of how we design a structure in the suburb. We place more importance on the facade than on how people interact with the building at ground level. In essence, we are suburbanizing the urban landscape.

> Henry Chao Newton, Massachusetts

Well-designed arcades will undoubtedly be one of the tools used by future generations of planners, who will overcome modernism and learn how to build real towns and cities again. Leeds, in the north of England, seems to be one city worth mentioning in its use of 19th-century arcades and numerous post-WWII attempts at them. The most successful of these was a street until recently, when a glass canopy was placed at roof level and the blacktop and concrete were replaced with marble. This new arcade links with one of the Victorian-era arcades, forming the Victoria Quarter, now recognized as Britain's most exclusive shopping area outside London. It seems that when architects and developers put their heads together, they are capable of producing places that are truly special.

> David Bleicher State College, Pennsylvania

CORRECTION

Rem Koolhaas is designing a retail outlet for Italian clothier Prada in San Francisco's Union Square, not in New York City, as was reported in June's Buzz column (News, page 41).

WE WANT TO HEAR FROM YOU!

Send your letters to the editor to: Architecture, 770 Broadway, New York, NY 10003. Or fax to: (646) 654-5817. Or e-mail us at: *info@architecturemag.com*. Include your name, address, and daytime phone number. Letters may be edited for clarity or length.

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CONTINUING EDUCATION SUPPLEMENT

How Color Is Affected by the Ingredients of



MODULE #2



Color is integral, and indispensable, to architecture and design. It follows that the architect can benefit from an understanding of how color is achieved with paint, and how paint ingredients can affect color — both initially and over time.

The components of paint were presented in a general way in the first module in this series, "The Ingredients of Paint and Their Impact on Paint Properties" (Architecture, October 1999). In this module, the focus narrows to explain the effect of paint components on color performance,

and factors the architect should take into account when specifying paint colors.

Every paint has four basic components:

ADDITIVES: low-level ingredients that provide specific paint properties such as mildew resistance, defoaming, and good flow and leveling.

BINDER: "binds" the pigment together and provides film integrity and adhesion.

LIQUID: provides appropriate consistency and makes it possible to apply the pigment and binder to the surface being painted.

PIGMENTS: prime pigments provide color and hiding; some pigments (*extender pigments*) are used to impart bulk at relatively low cost.

The two most important compo-

nents in determining paint color performance are the pigments and the binder.

The type, and amount, of pigments — and the degree and stability of their dispersion can determine whether the paint color will look the way it is supposed to when it is applied.

And, the type and amount of pigments and binder can determine whether the paint color will change over time ... and how quickly. The reason is that both of these components can suffer different types of deterioration over the life of the paint, which can cause significant color

change.

COLOR & PAINT TRAINING COURSE LEARNING OBJECTIVES

At the end of this course, you will:

• Understand how two of the four basic components of paint — pigments and binder — help determine the color performance of a paint.

• Appreciate the different implications and aspects of a paint's color performance.

• Understand why addition of tinting color to a paint must be done as prescribed by the paint manufacturer.

• Know what color problems can arise if care is not taken in specifying paint.

• Understand what factors can impact on an exterior paint's tendency to chalk and, thus, fade.

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CONTINUING EDUCATION SUPPLEMENT

PIGMENTS

Most prime pigments fall into one of the following four categories:

1. ORGANIC COLOR PIGMENTS, which typically produce brighter colors.

 INORGANIC COLOR PIGMENTS, many of which produce more muted colors ("earth tones").
TITANIUM DIOXIDE (TiO₂), which provides whiteness.

4. CARBON BLACK, which provides darkening to create deeper shades of color.

The color performance characteristics of organic and inorganic pigments are extensive and diverse.

ORGANIC PIGMENTS are based on several different chemical families, including: azo compounds, phthalo compounds, quinacrodones, condensation acids, and perylenes.

Generally speaking, organic pigments are more subject to deterioration (particularly by ultraviolet radiation from sunshine) than inorganic pigments. Still, there are significant differences *among* organic pigments. They are detailed in the chart below:





SELECTED ORGANIC PIGMENTS AND PROPERTIES

PIGMENT FAMILY → PROPERTIES ↓	PHTHALOCYANINE blues, greens (e.g., phthalo blue, phthalo green)	OUINACRODONE reds, oranges, violets (e.g., Violet 19)	CONDENSATION ACID (e.g., alkali blue)	PERYLENE (e.g., perylene red)	AZO yellows, reds (e.g., Hansa yellow, nickel azo yellow, toluidine red)
LIGHTFASTNESS, or a pigment's ability to withstand the deteriorative effects of sunshine, particularly ultraviolet radiation. Lightfastness plays a key role in determin- ing whether a paint color will continue to look the way it should. This property is of particular concern with exterior paints.	Good	Good – Very Good	Moderate	Good – Very Good	Vary Within the Family
COLOR INTENSITY , or the brightness of a pigment.	Good	Good – Very Good	Good	Good – Very Good	Vary Within the Family
HIDING STRENGTH, or a pigment's ability to obscure a surface over which it has been applied uniformly. This is key when deter- mining whether a paint color will look the way it is supposed to when first applied.	Good	Good – Very Good	Moderate	Good – Very Good	Vary Within the Family
CHEMICAL RESISTANCE , or a pigment's ability to resist the deteriorative effects of chemicals present in harsh cleaners, solvents, industrial atmospheres, etc.	Good	Good – Very Good	Moderate	Good – Very Good	Vary Within the Family
COST	Moderate	High	Moderate	High	Moderate – High

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CONTINUING EDUCATION SUPPLEMENT

INORGANIC PIGMENTS are generally based on metal oxides. Iron oxide is the most commonly used, and it is available in both natural and synthetic forms. Other families of inorganic pigments are chrome pigments and mixed metal oxides. In general, the oxides provide less color intensity than organic pigments, but they have better resistance to the damaging effects of sunshine. The significant differences among inorganic pigments are detailed in the following chart:

SELECTED INORGANIC PIGMENTS AND PROPERTIES					
PIGMENT FAMILY \rightarrow PROPERTIES \downarrow	SYNTHETIC IRON OXIDE reds, browns, yellows (e.g., red iron oxide)	NATURAL IRON OXIDE ochres, umbers (e.g., burnt umber, raw umber)	MIXED METAL OXIDE yellows, browns, gray (e.g., nickel titanate yellow)		
LIGHTFASTNESS	Excellent	Excellent	Good		
COLOR INTENSITY	Low	Low	Low		
HIDING STRENGTH	Very Good	Very Good	Vary		
CHEMICAL RESISTANCE	Good	Good	Good		
COST	Low	Low	Moderate – High		

Note: Chromium oxide green, which is made without lead, is used to some extent in architectural paints.

THE BLACK & WHITE OF IT

While white and black are not classified as colors or hues, the main pigments used to achieve "whiteness" and "blackness" (**titanium dioxide** and **carbon black**, respectively) are employed to alter color value and intensity, creating lighter "tints" and darker "tones" of a hue. Here are some points to keep in mind about these prime pigments:

TITANIUM DIOXIDE: While offering outstanding hiding and whiteness, this pigment tends to foster chalking and, thus, color fading in exterior paints, especially when compared to the effect of many other pigments and extenders. This is one reason why it is important to specify a high quality latex paint when using lighter colors for exterior applications. This is also why, for example, a very deep red iron oxide paint, containing no TiO₂, will generally resist chalking much better than a light red iron oxide paint, made with no TiO₂, all else being equal.

CARBON BLACK: The addition of very low levels of black pigment (or of certain other dark pigments) can markedly improve the hiding power of white paints. This practice is known as "toning" the paint, and many white paints are made this way. A toned white paint can have a satisfactory appearance, so long as it does not have a noticeable dark cast. This can be problematic, though, if a heavily toned paint is applied in proximity to a brighter white or very light-colored surface.



OTHER PIGMENT CONSIDERATIONS

Paint is either manufactured to a given color, or is "tinted" at the point of sale. In the latter case, a liquid tinting color or colors, called "colorants," are added to a paint designed to "accept" the particular colorant.

Manufacturers provide a series of tintable paints — called "bases" — to accept different quantities of colorant: either one color alone, or more than one. If the base and the colorant(s) are not compatible, the precise color that is desired will not develop. The following are designations used for tintable paints, in order of increasing level of colorant to be added, and decreasing level of titanium dioxide: Tintable White; Pastel Base; Light Base; Medium or Mid-Base; Deep Base; Accent Base; Ultra-Deep Base and Neutral Base. (The container will be shortfilled so as to accommodate the intended level of colorant.) Generally, a line of paint will have four or five of these bases, to cover the full range of tinting. A tintable white or pastel base may accept up to about 3 fluid ounces of colorant per gallon; a neutral base may be designed to take up to 16 fluid ounces or more.

It is essential that the colorant be used in the tint base designed for that line and level of colorant in order to achieve color that:

matches the color chip or standard;

2 will not tend to change while the paint is stored;

3 will be consistent with different methods of application (e.g., brush vs. roller).

The proper tint base will have the appropriate level of titanium dioxide to provide correct depth of color and hiding; and it will have the surfactants (specialized soaps) needed to ensure good color acceptance, that is, to minimize pigment particle agglomeration, or "flocculation." This is essential for developing full depth of color and hiding, as well as uniformity of color. A paint with inadequate color acceptance will typically turn out darker when applied with higher, rather than lower, shear stress. "Shear" (mixing action) is least with roller application, intermediate with brushing, and generally the highest with spraying. For example, a blue paint applied to a wall by roller, but cut in at the corners by brush, may have a noticeably darker blue brushed "frame" if the paint has poor color acceptance.

EXTERIOR COLOR RETENTION

For exterior applications, it is important to specify colors recommended by the paint manufacturer for exterior use, in order to avoid use of certain organic pigments that will fade excessively. However, if a paint **chalks** prematurely or excessively on exposure to the weather, the resulting whiteness will, in effect, fade the paint, no matter how stable the color pigment. Some paint ingredients that impact chalking rate are:

Overall level of pigments (particularly extenders) relative to binder. This becomes a factor with economy *flat* paints that may have a very high PVC [see Module #1], which "overwhelms" the binder and, in turn, leads to chalking.

Extender pigments in the paint formulation. Some extenders are particularly good for chalk resistance, including moderate- to large-particle-size calcium carbonate, silicas and silicates. However, calcined clay and very small particle extenders of other types can foster chalking. (Interior paints rely more on these extenders, and should not be used for exterior applications.) Be aware that when choosing extenders, particularly for flat and satin paints, the paint formulator has to balance various properties, including hiding, mildew resistance, sheen, chalk rate, and cost.

Type and level of titanium dioxide. This pigment offers unequaled whiteness, but will foster more chalking, compared to more durable extenders; for this reason, a quality latex paint in a very dark color with little or no titanium dioxide offers potential for minimized chalking.

Type of binder. In general, quality latex exterior paints resist chalking far better than do oil-based or alkyd paints, particularly in sunny exposures. Latex binders with styrene as a significant part of their composition can chalk excessively. When used for interior applications, alkyd paints can eventually yellow significantly in areas not receiving sunshine, whereas quality latex paints tend not to yellow.

The successful use of multiple colors can bring interesting architectural details to life.



Quality latex

earth tones, as shown here,

paints in deep

exhibit excellent

color retention.



Quality exterior latex paints resist chalking and fading better than oil-based paints, particularly in sunny exposures. In conclusion, many different formulation factors affect paint color performance, including:

- nature and level of prime pigment used
- type of extender pigments used
- proportion of pigment to binder
- type of binder
- proper combination of colorant and tint base
- general quality of the formulation

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Firm Billings, Profits Up

Economics Everything's looking up for architects, according to a triennial report from the American Institute of Architects. In our bullish economy, the results aren't exactly surprising. But considering the roller coaster ride of the last two decades, the gains are significant: Billings and profits are up; firms are growing; and architects are further specializing.

So says the 2000–2002 Firm Report, conducted by the AIA's division of economics and market research. The report tracks such market indicators as billings, firm size, and profit. It is one of the few surveys that draws wide-ranging conclusions about the health of the entire architecture industry. To do so, researchers polled 4,500 (out of 16,700) member firms and received an unusually high response rate of 38 percent. (Statisticians consider a 10 percent response rate to be successful.)

As with most sunny stats, the rewards lie within their interpretation. Figures for 1999 were weighted to proportionally represent the entire AIA membership and then extrapolated to forecast any logical trends out over the next four years—an educated guess at best. Additionally, organizers polled only AIA member firms, which comprise about less than half of all registered architects in the United States.

The survey concludes that AIA firm-designed construction totals \$381 billion, nearly one-third of which comprises rehabilitations and



Sharp Increase in Firm Billings Billions of dollars of billings at architecture firms

additions. That work represents a near doubling since 1996, up to \$24 billion.

Educational facilities are the single most popular building type, tallying one-fifth of the total commissions. Commercial and institutional projects are also booming; office (14.5 percent) and healthcare (12.2 percent) buildings are especially robust. The survey indicates that 60 percent of all firms work in only one market sector-single-family residential being the most popular-representing a trend toward further specialization.

So how do all these increasing figures affect firms' bottom lines? Much as you'd expect: More than half of the firms posted double-digit profit percentages. More good news: Profits were spread across all firm sizes, averaging 13 percent. Long-term growth seems promising too, as 62 percent of the firms surveyed used their profits to reinvest in their businesses.

Although the study primarily analyzes the fiscal performance of the architecture industry, it poses other questions as well. For example, the survey noted that, in 1999, women and racial/ increase or decrease) because the last survey, in 1996, didn't gather such population data.

However, that year the AIA did begin asking about a firm's online activities: The number of firms who post a website has quadrupled in three years, up from 9 percent to 36 percent. Eighty-five percent of all firms with websites have secured the rights to a proprietary domain name.

The absence of any real negative data tends to raise an eyebrow. But it is important to note that these data come from the AIA's preliminary results, which can be found in full on the Institute's website at www.e-architect.org. The full results will be available next month. We'll keep you posted. Mickey O'Connor

news



Johnson Wax Nostalgia

Just for Fun To celebrate the 50th anniversary of Frank Lloyd Wright's S. C. Johnson Offices and Laboratory in Racine, Wisconsin, View*Productions is releasing a series of photographs of the storied corporate campus by Arthur Drexler, curator of architecture and design at New York City's Museum of Modern Art from 1950 to 1987, and an avid stereoscopic photographer. In 1952, Drexler documented Johnson Wax using this technique, which creates



three-dimensional, double-image photos that mimic the human eye's stereoscopic functions.

As with all its products, View*Productions has conveniently packaged the 21 color images on three View-Master reels. Using the included viewfinder, which was first introduced to the public by Oregon inventor William Gruber at the 1939 World's Fair, fans can enjoy a different perspective on Wright's slender mushroom columns and open-plan offices. Check them out at www.viewproductions.com. M.O.

Human Resources



Hejduk Steps Down

After an unprecedented 36 years, John Hejduk is relinquishing the helm of the Irwin Chanin School of Architecture at New York City's Cooper Union. Hejduk first appeared at the school as a student in 1950, returned 15 years later to chair the program, and was named dean in 1975. During his tenure, Cooper became one of the most highly regarded programs in the country; in 1971, the Museum of Modern Art

invited Hejduk to display the work of his students in a major retrospective, the first of its kind at a national art museum. Many of today's leading designers studied at Cooper, including Shigeru Ban, Elizabeth Diller, and Daniel Libeskind, all attracted there by Hejduk's titanic reputation, the strength of his faculty (including such luminaries as Peter Eisenman and Aldo Rossi), and his unorthodox, theory-based curriculum.

Hejduk, one of the New York Five (which also included Eisenman, Michael Graves, Charles Gwathmey, and Richard Meier), also received renown (and notoriety) as an architect who all but refused to build (exceptions include temporary follies and three housing projects in Berlin). Instead, he produced a series of books and installations that were notable for their rigorous analysis, exquisite illustrations, and nearly poetic texts.

Rumored to have suffered health problems over the last several years, Hejduk has not made public his future plans. Speculation about a successor has been rife in New York City for some time, but there is no official word to date. *Susanna Sirefman*

Architect and author Susanna Sirefman is based in New York City.

Buzz

Where does he find the time? Gotham is rippling with the rumor that Dutch architect (and Harvard professor, author, publisher, and 2000 Pritzker laureate) **Rem Koolhaas** may become the first architecture curator of the **Guggenheim Museum** in New York City. True, Koolhaas has established the Manhattan-based

Architecture Media Office (AMO, the reverse of OMA, the abbreviation for Office for Metropolitan Architecture, his Rotterdam-based architecture collective), a curatorial consultancy, but he was going to do that anyway. Or was he? Folks at the Guggie are mum.

Hadrian Predock—son of Antoine—and his partner John Frane have won the commission to design the \$17 million Central California History Museum in Fresno, California.

Megafirm (and 2000 AIA Firm of the Year) **Gensler** has opened a Seattle office, bringing the firm's number of branches to 21.

The National Audubon Society has given a Major Achievement Award for sustainable design to Condé Nast's new **Fox & Fowle**-designed headquarters building in Times Square.

Steven Holl, Zaha Hadid, and Rem Koolhaas are among this year's inductees into the American Academy of Arts and Letters. (Toyo Ito, Will Bruder, and Reiser + Umemoto also received awards.)

This year's LA 12 (chosen every 12 years since 1976) are: **Guthrie + Buresh; Wes Jones; Finn Kappe**

Eleven at Their 11th Hour

The National Trust for Historic Preservation releases its 13th annual 11 Most Endangered Historic Places List; mourns its first casualty





The List On January 26, the civic brass of Reno, Nevada, celebrated the razing of a 1947 Art Deco hotel with a Super Bowl Sunday-morning party. Residents hooted and applauded as the 12-story Mapes Hotel (facing page, bottom) imploded, kicking up an impressive whirlwind of dust. Not everybody was cheering, though. A core group of crestfallen preservationists watched in silence, displaying banners that told of the acrimonious battle they had just lost: "Reno—Where dreams come to die."

The loss was especially hard for National Trust for Historic Preservation President Richard Moe. Each year since 1987, Moe has overseen the Trust's 11 Most Endangered List, a national awareness campaign to save seriously at-risk properties: the 11 at their 11th hour. Losing the Mapes meant that Moe, for the first time, had been unable to save a listed historic site. In the days immediately prior to the planned demolition date, Moe attempted to shame Reno's city officials in an open letter to the Reno Gazette-Journal: "What's a city's heritage worth? Nothing, according to Reno city officials. Great cities don't destroy great buildings; they certainly don't celebrate the destruction with a party on Super Bowl Sunday."

The Trust's Most Endangered list features unique sites threatened by destruction, careless development, poor funding, harmful public policy, or neglect. But how much of an impact does making the list actually have on the sites' futures? "We've been enormously successful so far. [The list] raises the consciousness level, and it makes local policy-makers look closer at what they're doing." Herewith, the 13th annual 11 Most Endangered Historic Places list. Michelle Patient

Michelle Patient is a New York City-based freelance writer.

1 Abraham Lincoln's Retreat, The Soldiers' Home, Washington, D.C.

President Lincoln summered at Anderson Cottage between 1862 and 1864, during which time he completed the final draft of the Emancipation

Proclamation. After 150 years of heavy use, the site is in need of total restoration.

2 Dwight D. Eisenhower V.A. **Medical Center**, Leavenworth, Kansas Thirty-nine red brick buildings



dating between 1884 and the 1930s have housed-and still house-disabled war veterans from conflicts since the Civil War. The Veterans Administration wants to demolish the structures to make way for an expanded cemetery.

3 Historic Neighborhood Schools, Nationwide

State governments are abandoning and demolishing historic school buildings in older neighborhoods and replacing them with newer, larger structures.

4 Hudson River Valley, New York

This scenic region of small towns, which boasts such historic sites as Franklin Delano Roosevelt's Hyde Park estate, faces the threat of retail outlets, factories, and at least seven proposed power plants.

5 Fifth and Forbes Historic **Retail Area, Pittsburgh**

City officials plan to raze a neighborhood of small-scale historic buildings that house more than 100 locally owned businesses to make way for a mega-shopping and -entertainment complex.



6 Nantucket Island, Massachusetts

This quaint former fishing village struggles against a surge in development that, in the name of preservation, forsakes historic structures with disproportionate additions and destroys original interiors.

7 Okeechobee Battlefield, Okeechobee, Florida

A Second Seminole War battle took place on this South Florida site between the troops of Colonel (and future U.S. President) Zachary Taylor and the Seminole and Miccosukee tribes on Christmas Day, 1837. Part of the formerly pristine battlefield is now slated for development.

8 Red Mountain Mining **District, Ouray and San Juan Counties, Colorado**

Ghost towns and mines, many dating back to the 1870s, are scattered along the San Juan Skyway between Ouray and Silverton. Rough weather, logging, vandalism, and urban sprawl threaten the area.

9 Santa Anita Racetrack, Arcadia, California Designed by the Hoover Dam's

news



architect Gordon Kaufman, the Art Deco racetrack has had an interesting life: It was popular with 1930s movie stars, was a Japanese-American internment camp during World War II, and hosted the 1984 Olympic equestrian events. The current owner wants to turn it into a Las Vegas/Wild West-themed entertainment venue.

10 Valley Forge National Historical Park, Valley Forge, Pennsylvania

The site where George Washington and his Continental Army troops wintered in 1777 (before going on to win the Revolutionary War) is open to the public, but water damage, mold, and crumbling roofs are putting the survival of officers' quarters in jeopardy. 11 Wheelock Academy, Millerton, Oklahoma The Presbyterian mission school was founded in 1833 to educate Native-American girls. Weather damage and lack of funding threaten the Choctaw Nation's plans to reconfigure Wheelock's historic buildings into the first tribally-controlled community college.

(dad Ray is a former recipient); Koning + Eizenberg; Lanier + Lubowicki; Michael Maltzan; Dean A. Nota; Mark Rios; Michele Saee; and Mehrdad Yazdani.

Analysts at this year's Semiannual Construction Forecast Conference in Washington, D.C., sponsored by the National Association of Home Builders, have predicted that by the close of the year 2000, interest rates will continue to rise and thus housing starts will gradually slow.

On June 20, the National Building Museum will present its 2000 Honor Award to honor the efforts of designsavvy developer **Gerald D. Hines**.

In a May industry forecast report, the U.S. Commerce Department predicted a 9 percent increase in the American market for computer software for the fields of architecture, construction, and engineering. Further, the global demand for such products will jump by 10 percent and will expand steadily over the next five years. But many in the industry have even rosier prospects: "[I'd] consider 10 percent to be rather modest," says Yoay Etiel, senior vice president of marketing at CAD software giant Bentley, manufacturer of MicroStation software.

London bridge, falling down: On the day of the opening of the **Norman Foster**-designed Millennium Bridge in London, officials were forced to close the bridge after strong winds rocked the span, sickening some, knocking over others.

Ukraine **President Leonid Kuchma** has announced that the Chernobyl nuclear power plant, where history's worst nuclear accident occurred



above from left to right 4405-1, 4204-1, 4403-1 below from left to right 4201-1, 4402-1



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Architects Drop Trou for Jockey

Architectural Models This summer, the Jockey undergarment company (and lensman Ben Watts) photographed several practicing architects for their fall advertising campaign atop the under-construction Olympic Tower in Midtown Manhattan. The ads are to promote Jockey's new Metroscape boxer shorts, which depict abstracted references to Gotham's skyscrapers and townhouses. The trou-droppers are (from left to right): independent practitioners Barry Wood and Catherine Wei; Chris Craig of HLW International; Miranda Abrams, retailer Portico's design director; and John Jordan of the Polshek Partnership. Look for the billboards, magazine ads, and boxer shorts in October. *M.O.*

Drugstore Rehab Continues With Eckerd

Preservation The Eckerd Corporation is the latest drugstore chain to sign a good-faith agreement with the National Trust for Historic Preservation. Eckerd's pact promises to restore historic buildings rather than tear them down, going a step further than those entered into by competitors CVS and Walgreens, which have merely agreed to abide certain new design regulations and restrictions.

Eckerd's plans to raze an Albany schoolhouse forced the issue with the Trust. In an April letter, Eckerd Interim President John E. Fesperman officially reneged on the company's plans for demolition, writing: "You have our commitment at Eckerd to not destroy properties listed in the National Register of Historic Places." Instead, Eckerd will fund the remodeling and maintenance of the so-



called School 10, an 1890 Romanesque schoolhouse designed by local architect Albert B. Fuller.

America's largest drugstore chains have long been thorns in the side of historic preservation. In the past, pharmacy chains have demolished historic buildings all over America's Main Streets and downtowns, replacing them with windowless and characterless one-story boxes surrounded by vast parking lots (March 2000, pages 50–52, 156–157). *Sarah Palmer*

news

on April 26, 1986, will permanently close its doors in December.

Big fat hairy deal! It seems that Garfield's Adventure America, a \$150 million amusement and water park planned for the Indianapolis suburbs, has hit troubled financial times. Although the six-year-old mega-project devoted to the wisecracking 1980s cartoon feline was scheduled to open in May, nearly \$7 million in debts have developers thinking that bankruptcy may kill the cat. Garfield creator **Jim Davis** is not a financial investor in the park.

New York City's **Ralph Appelbaum** Associates will convert the U.S. Battleship *Wisconsin* into an interactive museum space in conjunction with the Nauticus maritime museum in Norfolk, Virginia.

Chicago Mayor Richard Daley is putting his money where his mouth is. After years of advocating sustainable design in the Windy City, Mayor Daley—with a little help from green guru William McDonough—is turning the roof of City Hall itself into a garden. The added greenery, which will be planted in a mixture of soil and a sponge-like material to minimize dead load, is thought to reduce the heat-island effect that large cities create.

The joint venture of Devrouax & Purnell and RKK&G Museum and Cultural Facilities Consultants

have received the commission to retrofit the landmark 1903 Central Public Library Building into a 63,000-square-foot facility for the City Museum of Washington, D.C.

Three years after **David Azrieli** graduated—at age 75—from the

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The Graying of America

Boomers Flying West For The Winter

Remember when everyone retired to Florida? No more, says a new study by the U.S. Census Bureau. In fact, during the last decade Florida hasn't appeared at all on their lists of states boasting the highest percent increase in the number of new households aged 65 and older, and households aged 45 to 54.

Greatest Percent Increase in Households Aged 65 and Older, 1990-1998

	Increase
Nevada	56.6
Alaska	50.1
Arizona	28.3
Hawaii	27.7
Utah	21.9
National Average	9.2

Greatest Percent Increase in Households **Aged 45-54**, 1990-1998

1990-1990	Percent Increase
Colorado	72.9
Nevada	72.3
Alaska	66.8
Arizona	64.3
Oregon	61.0
National Average	37.9
SOURCE: U.S. CENSUS BUREAU	



The Tube David Macaulay, the architect and illustrator who single-handedly made structural engineering seem folksy, will debut a five-part documentary series on PBS in October. The five films, collectively titled *Building Big*, dissect the Herculean construction efforts of our times into manageable knowledge tidbits sure to appeal to an audience of the widest age range. The series includes episodes that explore bridges, tunnels, skyscrapers, domes, and dams.

As in his popular books (*Cathedral* [1973], *City* [1974], and the phenomenally successful *The Way Things Work* [1988] among them), Macaulay uses his humble, hand-drawn renderings to anchor *Building Big*'s complicated subject matter in a kid-friendly world of doodle pads and Magic markers.

Check your local public television listings for showtimes. PBS is currently planning to broadcast the five episodes over consecutive Tuesdays in October. In case the budding architect in your life misses one or all of the installations, the network is also selling videotapes of *Building Big* and Houghton-Mifflin is releasing an accompanying 192-page book replete with Macaulay's sketches and commentary. *M.O.*

Seems Simple Enough...



Town Hall One of us, one of us... Neo-Corbusians in Hillsborough, California, beware! Officials on the town's architecture and design review board have taken to handing out "helpful" illustrations to explain the city's thoughts on new construction. "We've worked very hard to preserve the nature of Hillsborough," preaches the town's website. *M.O.*

news

architecture program of Ottawa's Carleton University, the multimillionaire developer has donated \$2.7 million to the school. In 1994, he also funded the establishment of the David Azrieli School of Architecture at Tel Aviv University in Israel.

The city of Boston is the first in the United States to establish a citywide revitalization program that aims to provide comprehensive assistance with promotion, design, organization, and economic restructuring to merchants, residents, and property owners. Called the Boston Main Streets Program, chosen aspiring businesspeople will receive a variety of technical and financial assistance, including a pairing with a corporate sponsor who will contribute up to \$10,000 over four years.

City planners in St. Louis are launching a plan to reestablish Chocteau's Pond, a 15-acre lake, just south of downtown. Created just after the city's founding in 1764, it was drained in the 1850s. The lake will be the centerpiece of a \$1 billion, 195-acre redevelopment effort to include homes, businesses, and public parks.

The National Trust for Historic Preservation has announced this year's winners of its Great American Main Street Awards: Coronado, California; Keokuk, Iowa; Newkirk, Oklahoma; Port Townsend, Washington; and St. Charles, Illinois.

Get Janet Reno on this! The latest convert to the church of New Urbanism is D.C. Mayor Anthony Williams, who has just signed up with the Congress for New Urbanism to revitalize Washington's waterfront. Sometimes things that should remain as one frequently

don't. Like when your very expensive shoe kicks loose its

heel, or entire sole. Or when the face fabric of your very

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expensive carpet comes apart from its backing. A problem

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called delamination. A problem because a carpet with no

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back is like a shoe with no sole: essentially useless.

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nates delamination. So when developing a specification for

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performance broadloom, specify LIFESPAN. You'll ensure

your carpet and back remain as one. Isn't that comforting?









Hit the Road to History This Summer

Road Trip! Jonesing for a road trip this summer? Check out historic Cooperstown, New York. In addition to being the home of the National Baseball Hall of Fame, Cooperstown also boasts architectural gems like the Glimmerglass Opera, the Otseaga Hotel, and the Fenimore House Museum (home of late 18th-century town settler William Cooper, father of author James Fenimore Cooper). Through a stand of hops, the Farmer's Museum (above) gives visitors a glimpse of rural life in 1845. Cooperstown is just one of the destinations suggested by the National Trust's Distinctive Destinations list. See descriptions of the others—San Luis Obispo, California; Boulder, Colorado; Thomasville, Georgia; Lawrence, Kansas; Lowell, Massachusetts; Petoskey, Michigan; Pittman Center, Tennessee; Fredericksburg, Texas; Lexington, Virginia; Port Townsend, Washington; and Chippewa Falls, Wisconsin—on their website: *www.nationaltrust.org. M.O.*

Politics

Guns of Fun in Times Square

You know the old saying: There's no business like the Second-Amendment-protection business. At their national conference in Charlotte, North Carolina, in May, the National Rifle Association (NRA) announced to its members plans to build a "total shooting sports and sporting goods experience" in the heart of New York City's Theater District.

While the news was greedily sopped up by the national news media, detractors called the plan a farcical publicity stunt to call attention to the NRA's growing membership numbers, which stand at 3.6 million. "We wouldn't welcome the gun culture back into Times Square," Brendan Sexton, of the Times Square Business Improvement District, told CNN, referring to the area's seedy past. "We just got rid of it."

Nonetheless, the NRA reports that the organization is negotiating lease terms on a property that will give it "the biggest presence in Times Square" a tall order in a neighborhood that boasts countless Broadway marquees, at least two windowed television studios, gargantuan, neon-lit bottles of Coca-Cola, whiskey, and beer, and thousands of billboards, news tickers, and video screens. *M.O.*

Strike one: Massachusetts House Speaker Thomas M. Finneran

balked at the Boston Red Sox's request for a state contribution of \$275 million toward the construction of a new Fenway Park. The ball club's proposal includes 82 million state dollars for two new parking garages, the profits from which the Sox would keep.

Florida **Governor Jeb Bush** (R) has signed a \$2 billion Everglades Restoration Investment Act.

The AIA reports that only 3 percent of its membership (about 1,200 architects) is not up-to-date with continuing education. Surprisingly, though, these 1,200 are mostly senior members of their firms; 30 percent of them are fellows.

The Hillier Group has received the commission to redesign all of automaker Cadillac's showrooms.

AIA convention attendees voted Fallingwater the building of the century. Four other **Frank Lloyd Wright** designs made the top 10.

Due to lower-than-expected attendance at the World Expo in Hannover, Germany (organizers expected 261,000 visitors daily; thus far it's been more like 70,000), Expo planners have already had to lay off 523 workers after only being open for five days.

The **Rhode Island School of Design** in Providence has selected Spanish architect **Rafael Moneo** to design its new campus center.

OBITUARY: Vinson McKenzie,

Atlanta historian—librarian who, in 1994, staged the first major exhibition on the contributions of African-American architects, 50.



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Calendar

Exhibitions

Chicago

Bilbao: The Transformation of a City at the Art Institute of Chicago through July 16 *(312) 443-3600*

Many Shades of Green at Archeworks through August 15 (312) 867-7254

Los Angeles

Making a Prince's Museum: Drawings for the Late 18th-Century Redecoration of the Villa Borghese in Rome at the J. Paul Getty Museum through September 10 www.getty.org

At the End of the Century: One Hundred Years of Architecture at the Museum of Contemporary Art through September 24 (213) 621-2766

London

Art Nouveau 1980-1914, at the Victoria and Albert Museum through July 30 *www.vam.ac.uk*

Brand.New examines design and consumerism at the Victoria and Albert Museum October 19– January 14, 2001 *www.vam.ac.uk*

Montreal

Shaping the Great City: Modern Architecture in Central Europe, 1890–1937 at the Canadian Centre for Architecture through October 15 (514) 939-7000

New York City

The New York Century World Capital Home Town, 1900–2000 at the Museum of the City of New York through February 4, 2001 (212) 534-1672

Making Choices: Modern Living 1 at the Museum of Modern Art through July 26 *(212) 708-9400*

National Design Triennial: Design Culture Now at the Cooper-Hewitt, National Design Museum through August 6 (212) 849-8400 Anni Albers at the Jewish Museum through August 20 *(212)* 423-3271

Tiborocity: Design and Undesign by Tibor Kalman at the New Museum through August 27 (212) 219-1222

Kahn's Modern Monuments at the Museum of Modern Art through August 22 (212) 708-9400

Making Choices: Modern Living 2 at the Museum of Modern Art through September 12 *(212) 708-9400*

The Opulent Eye of Alexander Girard at the Cooper-Hewitt, National Design Museum September 12–March 18, 2001 (212) 849-8400

The Draftsman's Art: Master Drawings from the National Gallery of Scotland at the Frick Collection December 12–February 25, 2001 (212) 288-0700

Pittsburgh

Aluminum by Design: Jewelry to Jets at the Carnegie Museum of Art; October 28–February 11, 2001 (412) 622-3118

Philadelphia

Master Works of Philadelphia Architects: Highlights from the Collections of the Athenaeum at the Athenaeum through October 13 (215) 925-2688

Washington, D.C.

Frank Lloyd Wright: Windows of the Darwin D. Martin House at the National Building Museum through August 20 *(202)* 272-2448

Reinvigorating the Cities: Smart Growth and Choices for Change at the National Building Museum through September 6 (202) 272-2448

The White House in Miniature at the National Building Museum through September 17 (202) 272-2448

The Triumph of the Baroque: Architecture in Europe 1600-1750 at the National Gallery of Art through October 9 *(202)* 737-4215



Resembling iMacs more than sneakers, athletic shoes are perhaps the most affordable combination of technology and fashion currently available people who wouldn't dream of wearing anything wilder than an oxford shirt will happily walk down the street in a pair of bulbous orange Nikes or sock-like Adidas slippers. In **Design Afoot: Athletic Shoes 1995–2000**, the San Francisco Museum of Modern Art examines sneakers as the highly designed—and often beautiful—objects they are. July 22 through October 17. For more information, see *www.sfmoma.org*.

Conferences

27th International Making Cities Livable Conference Vienna; July 4–8 www.livablecities.org

Preserving the Recent Past Philadelphia; October 11–13 (202) 343-6011

Seventh Conference of the International Association for the Study of Traditional Environments, Trani, Italy; October 12–17 www.arch.ced.berkeley.edu/ research/iaste

Uniting the Useful with the Beautiful: The Architecture of the Arts and Crafts Movement Pattee, Iowa; October 19–21 www.hotelpattee.com

Computers for Construction 2000 Anaheim, California; November 6–9 (800) 451-1196 International Preservation Trades Workshop Harrisburg, Pennsylvania November 13–15 *www.ptn.org*

Competitions

Future Vision Housing is an idea competition open to architects and artists aged 35 and under; deadline July 31 *fax* (43) 732-711701

Sydney Town Hall Precinct International Design Competiton Winners of the competition to design Sydney's civic center will share \$35,000; deadline August 18 www.cityofsydney.nsw.gov.au

The James Marston Fitch Charitable Foundation Mid-Career Grants of up to \$10,000; deadline September 1 (212) 777-7800

New York: The Masques of the City/Brooklyn Heights Promenade Sponsored by the Urban Studies and Architecture Institute; deadline October 31 (212) 727-2157



On the Boards

Antoine Predock, Architect, University of New Mexico School of Architecture and Planning, Albuquerque, New Mexico

Antoine Predock's winning entry in the competition to design a new architecture and planning school for the University of New Mexico, is, he says, "quietly didactic." The building is a case study in certain fundamental elements of architecture: the relationship between plan and section, the way light can enter and give shape to a space, and methods of accommodating a structure to its site.

While the building is basically a box, it is more complicated than that word suggests: Each floorplate is notched, set back, or cut out so that the section is seldom straightforward. A courtyard, mostly open to the sky, sits in the middle of the open gallery space on the ground level. Light and

rain come in from above, but one level up, the studio floor projects out and shelters half of the garden below. Mezzanines run along the edges and across the center of the second and third levels, and individual glass boxes holding seminar rooms are strung out along them. Looking up from the gallery floor, one sees transparent volumes cantilevered out, solid ones tucked in, and the grillwork of stairways and catwalks connecting them all.

A skylit atrium brings ambient light into the center of the building, while large slots in the wall facing the street open the ground-level main gallery to the harsh sun reflecting off surrounding buildings. Smaller



news



classrooms and offices are pushed out to the perimeter, and several lecture halls float islandlike in the open space. Each of these has one wall which is primarily glass, so one can look straight through to the courtyard. On the upper floors, studio areas and computer workstations are open to the space around them, illuminated by the skylights and north-facing clerestory windows.

The new school sits at the southern edge of the campus, facing the old Highway 66, now called Central Avenue. The street is typical of campus towns—a mix of cheap restaurants, bookstores, student apartments, and, of course, the all-important Kinko's. Predock's building opens itself up to all of this activity. Huge windows at ground level allow passersby to look in on students busy with pin-ups, working in the woodshop, or lounging. There are also more traditional venues for performance and display: An LED display on a cantilevered truss emerges from the building at the second floor and runs parallel to Central Avenue, and may show student announcements or student projects. One level up, a wall bounding the rooftop terrace acts as a projection screen, so someone walking by at night might look up and see images from Alberti or Bladerunner. The 68,000-square-foot building has a budget of \$8 million, and is scheduled to open in 2002. Anne Guiney





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Oractice

"Drive-in theaters have shed their status as passion pits. Teenagers groping on vinyl have given way to family cars loaded with moms and dads and pajamaclad kids mesmerized by the giant screen." **Preservation, p.58**

"The Piscataway and Inuit, Comanche and Arapaho summoned the spirits of fire and earth in ancient languages and sprinkled tobacco and sacred burial soil on the future site of the National Museum of the American Indian." **Politics, p.60**



The View From The Hill

Architecture's staunchest political advocate is retiring. **Mickey O'Connor** collects Senator Daniel Patrick Moynihan's parting thoughts.

Politics Architects are about to lose their best friend on Capitol Hill. After nearly five decades of public service, Senator Daniel Patrick Moynihan (D-New York) will retire in January. The senator, Washington's almighty gatekeeper of infrastructural spending, annually oversees the appropriation of billions of dollars in federal construction funds. His 24-year Congressional record includes creating the Pennsylvania Avenue Redevelopment Corporation, saving Walt Whitman's Long Island birthplace, and restoring New York City's Grand Central Terminal. In 1994, he helped to establish the General Services Administration's standard-busting Design Excellence Program (*Architecture*, January 1996, pages 59–101), for which the American

Senator Infrastructure: Daniel Patrick Moynihan has worked the halls of Congress on architecture's behalf since 1976. Institute of Architects honored him in 1992 with their Thomas Jefferson Award for Public Architecture.

But Moynihan's great white whale has always been New York City's Pennsylvania Station. While he failed to save the original beaux-arts masterpiece, his opportunity for redemption arrived in 1998 with a plan to fit a new Penn Station inside the McKim, Mead & White-designed James A. Farley Post Office Building (1914) that, 40 years earlier, he had helped preserve. In January of next year, construction begins on the project that effectively paraphrases Moynihan's desire to save our heritage, but not at the expense of progress.

Mickey O'Connor: How did the project to renovate the Farley Post Office Building into a new Penn Station come about?

Senator Daniel Patrick Moynihan: The American preservation movement began the day after the old Penn Station was knocked down. The first thing we did was [extend protection to] the Farley Post Office across the street. As a youth in New York City, you learned [the slogan than runs along the cornice of the Farley Building]: "Neither rain nor snow nor dark of night shall see these couriers from the swift completion of their appointed rounds." So years go by and the assumption that railroads are going to disappear wasn't quite holding up. Amtrak proposed a new station because that little hole in the ground [the existing Penn Station] just couldn't stand the increasing traffic. It's the busiest train station in the nation, if not the world.

Doing things is difficult today in ways that it used not to be. Today we have a civic culture in which you acquire prestige by preventing things from happening.

Was it a hard sell?

Yes, only in the important sense that doing things is difficult today in ways that it used not to be. We put up the Empire State Building in 14 months, but today we have a civic culture in which you acquire prestige by preventing things from happening.

How difficult was obtaining the money, getting the approval of Congress?

I got it through Congress all right, although even at this very moment, [Representative Frank R. Wolf (R-Virginia)] would like to [re-appropriate the funding]. It's called a trading item. Our people wouldn't do that to me now, though. I'm leaving and it's settled.

I understand that there have been proposals to name the new Penn Station for you.

Well, there have been and I have gone to great lengths to say no because

I don't want other people to get involved and say, "Why the hell am I building a memorial to him?"

Who takes your place in Congress?

Well, we'll find out, won't we? I hope a Democrat, somebody who wants to get this project done.

Do you think these issues—preservation, public infrastructure are things most members of Congress are concerned with?

Well, we're beginning to be. We now realize how many things we tore down and we're saying, "Oh my God, we shouldn't have done that." We're also noticing a number of things that we put up that we'd just as soon not think or talk about.

Do you have any advice for architects in terms of the intricacies of selling a project or a vision to the federal government?

Well, they should let their interests be known to whoever is the head of the public buildings service of the GSA and if they can get one Bob Peck out of five, the country will be much in their debt.

You prefer the coexistence of different styles rather than a public architecture that evokes a specific historic style?

It took us a long while to create a contemporary architecture with [Louis] Sullivan and the Prairie School. We've built all the Greek temples and Gothic churches and so forth that we need for one country.

So what do you think of people creating new architecture that looks like old architecture?

Well, that's new architecture. It's called Greek Revival, Egyptian Revival, Gothic Revival, Tuscan Revival....

In your opinion, which president has had the best record on the built environment?

Well, it was the Nixon administration that finally got the temporary buildings off the Mall—"tempos," as they were called. They were built by the Navy in 1917. So [President Nixon] said, "Okay, we can tear them down and transfer the activity to Oklahoma City or something like that." But he was the one who finally got the legislation through to create the Pennsylvania Avenue Development Corporation.

New development threatens many historically significant buildings that are less than 50 years old and, thus, not eligible for federal protection. How do you think we get around that?

You don't. Life goes on. You don't get absolutely panicky about holding on to the past. You can't.

But surely there have been buildings that we've lost over the years that you regret?

I regret more the things we haven't built.

practice



Senator Moynihan stands outside the 1994 Manhattan courthouse, designed by Kohn Pedersen Fox, that bears his name.

practice

The Screens Of Summer

After several dark decades, drive-in movie theaters are staging a comeback. **Michelle Patient** takes stock of America's favorite roadside attraction.

Preservation Once headed for extinction, drive-in theaters are rallying again as American families line up for an affordable night of novelty and nostalgia. Four new drive-ins have opened in the United States since 1996, while 15 old ones have undergone renovation. "It's a steady comeback," says Kim Bialek, vice president of the 700-member Drive-In Theatre Fan Club, founded in 1993 and based in Baltimore, Maryland. "Existing theaters are doing great business, and a lot of people are reopening vintage drive-ins. Every year the trend gets stronger." The U.S. mania for movies and automobiles is apparently exportable: European versions of the old-fashioned American drive-in have cropped up in Russia, Italy, Spain, and Australia.

The first drive-in debuted in a Camden, New Jersey, backyard in 1933 (its first feature: *Wife Beware*). The sandlot cinemas really took off in the postwar years, with some 4,000 U.S. theaters going up in the 1950s, peaking at roughly 5,000 by 1958. (Missouri alone boasted 124.) But their numbers began to dwindle soon thereafter, the victim of high-tech theaters, VCRs, and compact cars. Today, only 530 drive-in theaters operate in the United States, including Becky's Drive-In in Berlinsville, Pennsylvania (right). Another 1,000 sit abandoned.

Proprietors are keeping drive-ins solvent by diversifying. The Silver Lake Drive-In, in Perry, New York, for example, added a restaurant and miniature golf course to the original 1950s site, thus offering daytime and evening activities. Further, the per-car pricing of drive-ins makes them a bargain compared with typical multiplexes. Drive-in theaters have also shed their status as passion pits. Teenagers groping on vinyl have given way to family cars loaded with moms and dads and pajama-clad kids mesmerized by the giant screen. "Drive-ins are baby-boomer relics," says Don Sanders, a Dallas businessman and coauthor of *The American Drive-In Movie Theatre* (Motorbooks, 1997) and Drive-In Movie Memories (Carriage House, 2000), "but younger people want to go because it's a pleasurable departure from the high-tech culture of cell phones and e-mail.

Michelle Patient is a New York–based freelance writer and a copy editor at Entertainment Weekly *magazine.*





practice

Cardinal Rules

The National Museum of the American Indian was supposed to heal old wounds. Then the Smithsonian fired the architect. **Michael Cannell** reports on race, politics, and design.

Politics It was a bittersweet gathering. In the shadow of the Capitol offices that administrated the Indian Wars, hundreds of tribal members and chiefs convened last September on the final remaining museum plot on the grassy expanse of the National Mall. A somber drumbeat sounded under clouded skies as tribal delegations dressed in beaded buckskin and feathered headdresses blessed the four cardinal directions. Standing at the country's symbolic heart, the Piscataway and Inuit, Comanche and Arapaho summoned the spirits of fire and earth in ancient languages and sprinkled tobacco and sacred burial soil on the future site of the National Museum of the American Indian (NMAI), a Smithsonian showcase of native cultures. It is the Capital's most important current architectural commission; native elders call it part-Louvre, part-holocaust memorial.

"In a circling back of history on itself, in an act of compelling historical justice, having finally arrived, we now occupy the first, in fact, a keystone position on these hallowed grounds, with the Capitol building of the most powerful nation in the world clearly in our sight," said NMAI director Rick West, a Southern Cheyenne.

The building's original architect, Douglas Cardinal, a Canadian of Blackfoot ancestry, was conspicuously absent. The Smithsonian had fired him eight months earlier, replacing him with the Polshek Partnership of New York City and Tobey + Davis (now the SmithGroup) of Reston, Virginia. Cardinal refused an invitation, calling the modified design "an artistic forgery."

"To them, I'm just another Native American to be exploited," he told the Associated Press that day. "I'm not going to be anybody's Tonto."

Geronimo's hat

The museum dates back almost a century. In 1903, a dapper 23-year-old New Yorker named George Heye, the only son of a Standard Oil execu-

tive, bought a buckskin shirt from a Navajo woman while supervising railroad construction in Kingman, Arizona. He soon gave up the railroad for full-time collecting. Over the next five decades, Heye traversed the country in a chauffeur-driven Pierce-Arrow limousine, amassing some 4 million artifacts of Native American life, from Geronimo's hat and Inca beer jugs to Sitting Bull's drum and a Hidatsa earth lodge. He acquired by the boxcar-full in a reckless, headlong rush; Heye was once reportedly arrested for grave-robbing while excavating an Indian burial ground in New Jersey. His first wife tired of his obsession and left him while he was off scouting Panama pots; his second wife spent her honeymoon digging up the Nacoochee Mound burial site in Georgia.

Heye's manic hobby had the unintended benefit of preserving an encyclopedic record of native culture that would otherwise not exist. "If Heye had not collected those things back then, we would not have them today to look at," former Delaware tribe grand chief Linda Poolaw once said.

Heye housed his vast repository in a four-story beaux-arts museum located on a remote stretch in upper Manhattan. The building could accommodate only a tiny minority of his holdings, though; most of the collection languished along miles of dusty metal shelves in a hopelessly cramped Bronx warehouse.

The Museum of the American Indian's location, at Broadway and 155th Street, placed it far outside the city's cultural orbit. And as the neighborhood declined in the 1960s and 1970s, attendance—and revenue—dwindled. In 1989, Senator Daniel Inouye (D-HI), chair of the Senate select committee on American Indian affairs, engineered the collection's transfer to the Smithsonian, thereby rescuing the world's greatest native archive from obscurity and decay. (Rep. Ben Nighthorse

Native American architect Douglas Cardinal seated outside his magnum opus, the Canadian Museum of Civilization in Hull, Quebec.




NMAI director Rick West (second from left, top) and his family dressed in traditional fashion for a museum powwow. Collector George Heye at the Nacoochee Mound burial site in Georgia (bottom).

Campbell (R-CO), the only Native in Congress, added a provision to the funding legislation requiring the Smithsonian to return the skeletal remains of 18,500 Native Americans already stored in its vaults.)

Senators bickered for months over whether the new museum should be located in New York City or Washington, D.C. In the end, they compromised: In 1994, an exhibition and performance facility opened in the U.S. Customs House on New York City's Bowling Green, while the bulk of the collection moved to a Suitland, Maryland, storehouse designed by Polshek with Tobey + Davis. But the centerpiece of the Smithsonian's new native collection was to be a \$110 million museum sited on the last available land on the Mall, located directly across from I.M. Pei's East Building of the National Gallery at the foot of Capitol Hill. The government kicked in \$50 million, with more than a thousand individuals, including Kevin Costner and Paul Newman, contributing the rest. A \$10 million donation—the largest by far—came from the casino-rich Mashantucket Pequot Tribe of Connecticut.

The ideal candidate

Museums are a European invention; the Hopi and Sioux never felt the need to display their spoils. On the contrary, Native American leaders have historically blamed museums—particularly natural history museums—for plundering their sacred burial grounds and casting them as lowly savages. "Imagine your dismay if Thomas Jefferson's bones were removed from his grave and displayed on a museum shelf," Chief Nelson Wallulatum of Oregon's Wasco tribe told a Senate panel in 1987. "You would feel even more strongly if he were your great-grandfather."

But if museum exhibitory was anathema to the native spirit, how would director Rick West and his native staffers interpret and display their own culture? In a laborious exercise in political correctness, the Smithsonian spent two years soliciting opinions on what the museum should be from nearly a thousand Native Americans throughout the hemisphere. Drawing on the transcripts, Denise Scott Brown of Venturi, Scott Brown and Associates created a three-volume planning document titled *The Way of the People*.

"We wanted to involve native peoples directly in the design," says West. "We wanted to see if there were certain elements we could distill that would drive the program." The consensus: The museum should embrace the site in a nonlinear way; it should express reverence for nature by highlighting water and light; it should emphasize living native cultures, not just the past.

But who would design it? A competition led the Smithsonian to choose the prominent and controversial Canadian architect Douglas Cardinal. Because Cardinal is unlicensed in the United States, he worked in association with the Philadelphia firm of Geddes Brecher Qualls Cunningham (GBQC) and a team of native consultants.

Cardinal seemed ideally suited for the job. He was, after all, the only native architect with a major museum in his portfolio, the sinuous Canadian Museum of Civilization. What's more, his small Ottawa office had used computers since the 1970s to dimension the kind of organic forms *The Way of the People* called for. Better still, Cardinal has immersed himself in the spiritual traditions of his ancestors. He's a trained medicine man, and he smokes the ritual stone pipe and chants during weekend retreats at a sweat lodge. "Rituals and ceremonies teach us that we're magical beings with creative powers," he says. "They help us tap into that knowledge within us, that life force."

On the other hand, Cardinal came burdened with a reputation for being prickly and uncompromising—an architect in the Howard Roark mold. During construction of the Canadian Museum of Civilization, a behemoth outcropping of fossil-studded limestone terraces sprawling for three blocks along the Ottawa River, he disputed everything from the pattern on cafeteria china to the shape of TV wall outlets. He told the press he would rather bulldoze the partially built project than modify the

practice

Cardinal prepared as if for war. Before he left for Washington, the land of pinstripes and power ties, tribal elders painted his face. They told him he needed his ancestors to walk with him, because he would be assuming an arduous task. They were right.

design. Ultimately, it took six years to build. "Virtually every Douglas Cardinal project has a bit of conflict built into it," Cardinal biographer Trevor Boddy told National Public Radio. "He runs on conflict."

Still, Rick West wasn't worried. A smooth Harvard-educated lobbyist and lawyer, West felt sure he could handle the dictatorial Cardinal. "I had faith in my own abilities—overstated as it turned out—to deal with difficult, creative personalities."

Vision sessions

Cardinal prepared as if for war. Before he left for Washington, the land of pinstripes and power ties, tribal elders painted his face and gave him the name of his ancestors, *Anack Anabie*, the war chief and peacemaker. They told him he needed his ancestor to walk with him, because he would be assuming an arduous task. They were right.

Trouble started almost immediately when Cardinal dismissed *The Way of the People* as "an Anglo interpretation of Indian needs." In its place, he conducted four days of "vision sessions" with 16 tribal elders gathered, incongruously enough, in Washington's Classically appointed Cosmos Club. Elders introduced themselves by recounting ancestors and native cosmology. Their museum discussion was interspersed by long meditative silences. "As they spoke I saw pictures," Cardinal says. "Later, I sketched what I saw. I wasn't yet interested in answers; I wanted to define problems."

Cardinal deemed these elders the project's true clients, and much of his intransigence over the following years derived from his loyalty to them. "The elders told me, 'You keep our vision. We have spoken.' I know what it is to make a sacred oath."

The vision sessions inspired Cardinal to draft an abstracted Indian world distinct from the order and formality of the surrounding Mall. Visitors approach by meandering among 20 types of trees and more than 100 kinds of herbaceous plants. The path passes boulders known as grandfather rocks and a wetland planted where the Tiber Creek flowed when the Mall was home to the Pascataway tribe. Looming overhead is the five-story bulk of the sculpted, overhanging limestone façade, which is meant to evoke eroded cliffs.

As with most native dwellings, the entrance faces east, toward the morning sun. Just inside, a 99-foot-high rotunda serves as a circular gathering space, or *potomac*, for storytelling and other performances. A solitary, slit window on the south side is designed to capture the sun's rays at the time of the vernal equinox. "And that shaft of light, like a calendar, marks the hour, marks the season in the stone," Cardinal wrote in his unpublished manuscript-length account of the project, "and reminds us of our history, of our learned astronomers of the Americas."



Douglas Cardinal's original design for the 250-square-foot NMAI (top). The museum as later refined by the Polshek team (center). The NMAI occupies the last available museum plot on the Mall. It will stand on a site on the south side of the Mall between the U.S. Capitol and the National Air and Space Museum (bottom).

Cardinal looked admiringly across the Mall at I. M. Pei's East Building. Pei had initiated his design by drawing the site on the back of an envelope during a shuttle flight back to New York City. He then sliced the site into two triangles, and followed the Euclidean dictates of the resulting geometry right down to the detailing of bathrooms and elevators. Cardinal hoped to balance Pei's triangulations by basing his

practice



Preservation

Real-Estate Agents Learn to Sell Historic Properties

Preservation-savvy realestate agents have a competitive edge when it comes to selling historic properties. And preservationists figure that educated homeowners make better stewards of historic properties.

Such is the rationale behind a new partnership between Cendant Corporation's ERA Real Estate, of Parsippany, New Jersey, and the National Trust for Historic Preservation. The two-year program, funded with \$200,000 from ERA, will teach agents how to research and sell historic structures, like this 1850s Victorian farmhouse (above). Topics include architectural styles, tax credits for rehabilitation, and preservation laws.

Sixty agents matriculated from the first eight-hour training session last March. Five additional courses will be offered this year. The \$139 seminar is open to all agents, though only ERA employees may put the National Trust logo on their business cards. "The knowledge gives you credibility with clients," says agent Richard Valkenburgh, of Huntsville, Alabama.

The exact size of the historic market remains unclear. The National Register of Historic Places alone lists more than a million buildings. Local ordinances have collectively designated another million. "Preservation consciousness is growing enormously in this country," says Dwight Young, a spokesman for the National Trust. "We find the public is better educated and increasingly interested in the variety of historic homes and their connection to our roots. This program is just the logical outgrowth of that movement." **Bill Heavey**

design on the harmonic circular proportions of traditional native structures. As a result, his NMAI is a series of rounded spaces animated by sinuous, snakelike twists. He planned, like Pei, to follow his geometry through in every detail—if the Beltway elders would allow it.

Storm clouds

In May 1996, Cardinal's conceptual design received "enthusiastic" approval from the Commission of Fine Arts, the arbiter of all new federal building in the capital. Within weeks, Cardinal says, "all hell broke loose." It began when Cardinal and GBQC began to squabble over how to divvy up the government's six percent fee. The architect's agreement called for a fifty-fifty split, with the work burden shifting from Cardinal to GBQC as design development gave way to construction management. "I knew it would be a tremendous investment for me," Cardinal says, "but eventually it would balance out. I would be reimbursed in the end."

But Cardinal miscalculated how expensive and laborious it would be to move his 12-person team to Washington, D.C., and seek approvals from an elaborate constituency: the Smithsonian, the Commission of

Cardinal told West he would not deliver any more drawings until the Smithsonian interceded and resolved his stalemate with GBQC. West refused.

Fine Arts, the Architect of the Capitol, a council of benefactors, and, most importantly, the elders. "The client was much larger than we'd contracted for," he says, "and we went way beyond what the contract called for to get the various approvals." He fortified himself by retreating to a sweat lodge he built of blankets and saplings in suburban Virginia.

Meanwhile, two GBQC partners retired, resulting in, among other changes, a new project manager. Cardinal came to believe the new version of GBQC was deliberately slowing the project's pace and delaying disbursements (because GBQC was the prime contractor, Cardinal was technically a subcontractor) in order to drive him off the project. As a result, he says, he was obliged to shoulder more than his share of detailing construction documents to stay on schedule. "Their strategy was to push me over the edge and take over the project," he says. "We had no choice but to work like mad to keep our cash flow up. It became intolerable."

GBQC principal Michael Kihn denies any such plan. "No one conspired to push Douglas into a peripheral role," he says. "We did have differences of opinion over responsibility for design versus building technics. Douglas felt that we impinged on his role as a designer. He was adamant about dictating the design to people who drew it up and translated it into documents. We don't work well with an autocratic style; we tend to be collaborative. When it came time to develop the project beyond the design phase, we ran into some real differences." *continued on page 140*

Gulture

Peter Papademetriou on Saarinen's Lost Works p. 72

Cathy Lang Ho on the Salone del Mobile p. 74

Christopher Hawthorne on Free Money for Architects p. 78





Burgers, Fries, and a Side Order of Mies

High modernist Mies van der Rohe—architect of an American roadside diner? **Liane Lefaivre** digs up the missing Cantor Drive-In.

History In 1965, architecture critic Reyner Banham published an article called "The Missing Motel" in the British magazine *The Listener*. It was a humorous tirade that lampooned the exhibition "Modern Architecture USA," then on view at New York's Museum of Modern Art. The show featured the work of prestigious architects only, including many of the immigrant *Bauhaüslers*. "Missing," wrote Banham, was the

An exterior perspective sketch and a section of the Cantor Drive-In (unbuilt) show Mies' design for a site on 38th Street in Indianapolis, 1945–50. The Cantor was the birthplace of Mies' universal space.

They Judged the Store Front Competition

The usage than 190 entries submitted in the New Frace. Point-Kawasne Contrast competition Store Fronts of Tennetrow," were judged at the Read House, Clattinooga, Tenna, January IJ 0 5. The phonograph lectore shows the members of the Imy during one of their sessions. Left to tight: Rohand Wank, AlA, Knowville, Tenna; Morirk Keddum, Ira AlA, Claiminan of the Jary o Worth, New York; Stande E. Louden, JiAA, Loa Angeles: Fredricht Rigger, FAAA, Washington, D. S.; and Mies van der Roha, AlA, Chicago, William Lescare, AlA, New Yoek, was predesional adtier: Knorth (Reid, AlA), editor of Niw Praxe, Dorsey, was assistant professional advice.





Mainstream Mies

Although the Mies van der Rohe Archive has been reviewed countless times by historians, no one seems to have noticed that it contains a complete series of Brunswick Six bowling catalogues, National Theater Supply brochures for drive-in theaters, miscellaneous information on soda fountains and ice-cream parlors, and sample menus from various drivein restaurants. Clearly Mies did not see a contradiction in being the architect of campuses as well as the architect of soda fountains. He was preparing himself to enter mainstream American culture, full tilt.

Two years before he began working on the Cantor Drive-In, Mies served as a juror in a storefront design competition, published in *Pencil Points* (the precursor to *Progressive Architecture*), which recognized projects notable for their jubilant signage and commercial image. Kawneer Metal and Aluminum Construction Company cosponsored the competition; Mies was the only architect of any repute on the jury. He appears photographed with the jury in Kawneer advertisements (top, at far right)—the commercial face of architecture at its most unabashed. It has since taken decades for the vernacular and the everyday to be rediscovered as territories of architectural innovation. *L.L.* real "American scene . . . motels, supermarkets, bowling alleys, filling stations, hamburger stands, even private houses." The time had come, he declared, for MoMA to present projects like the Istanbul Hilton, Martini Heaven, and Ute Valley Ski Lodge, which "cry out for investigation and understanding; the quality involved is too big for it to be ignored." When confronted with this criticism, Arthur Drexler, then MoMA director and curator of the show, was dismissive: While conceding that real people actually "might build such things," and that they might even be "culturally significant," he felt that his museum's "high valuation" on "quality" entirely justified his neglect of such projects.

One "missing" building-overlooked by the MoMA exhibition, the architectural canon, and even Banham's article, where it surely

In their quest to understand the origins of Mies' American architectural persona, scholars have preferred to search high rather than low.

belonged—is the Cantor Drive-In Restaurant, designed between 1945 and 1950 for a highway on the outskirts of Indianapolis, by none other than the fabled "quality" architect Ludwig Mies van der Rohe.

Mies himself did not look down on the Cantor Drive-in Restaurant. In fact, he seems to have been obsessed with it. In the Garland edition of the Mies Archive, drawings for the drive-in occupy 229 pages, compared to 83 pages on the Farnsworth House. Although the project was never built, Mies was very attached to it: He had a model made and included it in the retrospective of his work at MoMA in 1952. When *Arts and Architecture* ran an article on him the same year, he made a point to present the drive-in alongside his more famous Lake Shore Drive Apartments, Farnsworth House, Promontory Apartments, and the Illinois Institute of Technology's Alumni Memorial Hall.

Mies was not above designing bowling alleys, for that matter. That is what Joseph Cantor, the client, had initially approached the famous architect to design. Not your typical client, Cantor was a film distributor, one of Indianapolis' wealthiest businessmen, and a discerning art collector (particularly of Cuban modern artist Wilfredo Lam). Cantor was Mies' second private American client, after the Resor family. (Mrs. Stanley B. Resor was one of the MoMA's Trustees and had approached Mies in 1937 to design her summer house in Jackson Hole, Wyoming.) Cantor also commissioned Mies to design his house, though none of these early commissions were ever built.

The Cantor is not your typical drive-in. It clearly arises from the classical poetics of order that all Mies' buildings share. It is a striking example of the clean, clipped, prismatic classical lessons that he learned from his architectural hero, the 19th-century architect Karl Friedrich Schinkel. A small detail is revealing: The chairs in the diner are Mies' 1927 neoclassical MR10 chairs that he had designed in Berlin. More importantly, however, the Cantor might be considered the birthplace of



Mies was so attached to the Cantor Drive-In that he had a model of it built. The building's only support are two exterior trusses, from which a glazed box is suspended.

his most significant architectural innovation: so-called universal space, the concept most associated with his transition from "European architect" to "American architect." In the Cantor, a clear-span structure depends upon, as its sole support, an exterior element—two external trusses—liberating the interior of any load-bearing elements. The first built projects in which he actually implemented the idea are Crown Hall in Chicago (1952–56) and the Mannheim National Theater (1952–53).

In their quest to understand the origins of Mies' American architectural persona, scholars have preferred to search high rather than low, identifying the origins of Miesian universal space in more upscale projects, such as in his "Museum for a Small City," a project he submitted to *Architectural Forum* in 1942. But that project is not the best example of universal space, for it still has structural elements inside the building. It is not until the Cantor that Mies imagined a pure unitary space, a box with all the structural elements placed outside, as an exoskeleton. Perhaps this historiographical omission is due to scholars' reluctance to acknowledge that one of the hallmarks of Mies' work was born in the world of fast-food and brash, mass consumption. Mies' biographer Franze Schulze, who has written most extensively about the conditions and details of the Cantor's design, observed in the Mies Archive that it contains a universal space, but the importance of this was lost on him and other Mies scholars. *continued on page 138*

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Desperately Seeking Saarinen

A little-known college bears the mark of father-and-son team Eliel and Eero Saarinen. **Peter Papademetriou** sleuths for clues about this pivotal—and overlooked—work.

Lost Masterpieces Located in the remote immigrant outpost of Hancock, Michigan, is a small Finnish-language college, which, in the midst of the Depression, expanded its campus with an additional class-room building. Suomi College turned to the only famous Finnish architect in the United States: Eliel Saarinen, who had emigrated in 1923. At the time, he was the head of the architecture program and president of the Cranbrook Academy of Art, outside Detroit.

Nikander Hall is among the few projects Saarinen built outside of Cranbrook while he was there. Significantly, the project occurred at an important moment in the development of Saarinen's U.S. practice, signaling his growing collaboration with his son Eero and attempts to deal with International-style modernism.

After graduating from Yale in 1934, Eero had travelled across Europe and worked in Finland, where he encountered Aalto's work. Upon returning to the United States in 1935, he and his father initiated a joint practice for non-Cranbrook work. Their first projects were the Charles Koebel House in Grosse Pointe Farms and the Community Center in Fenton (both in Michigan), which, along with Nikander Hall, reflected Eliel's conservative modernism, with hints of Eero's more progressive thinking. Cranbrook's first flat-roof building, the Institute of Science (1938), with its cantilevered thin-slab entry canopy shares this heritage.

It was unusual for a provincial institution in the mid-1930s to adopt an architectural style like that of Nikander Hall. Yet, like Koebel House and Fenton Community Center, Nikander Hall has been virtually omitted from Saarinen's oeuvre, perhaps because it was not pure International style, and may have seemed an embarrassment later.

Family dynamics might also explain the difficulty in attributing the designs, which also bear the stamp of Robert Swanson, Eliel's son-inlaw. Swanson wanted to be an accepted member of the Saarinen partnership, and Eliel, perhaps to maintain familial peace, recorded many projects in such a way as to confound questions of attribution.

Eliel and Eero's early collaboration helped shape the senior Saarinen's brand of modernism, while laying the groundwork for one of the most intriguing U.S. practices (Eero's) of the mid-20th century. Nikander Hall offers new insights into this development. One wonders what other "lost" works might be hiding.







Nikander Hall is an articulated composition of flat-roofed blocks stepping down a hill (top). The Saarinens configured the slope in a series of terraces into which future buildings were to be inserted as part of a campus master plan that began at the top of the hill (center). Nikander Hall is the only building completed by the Saarinens (bottom). It comprises an entry tower, lobby, and library on the highest level, an intermediate classroom level, and a gymnasium and exterior terrace on the lowest level.



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Antonio Citterio





Architecture, To Go

At the annual Milan Furniture Fair, architects' works are strictly prêt-à-porter. Cathy Lang Ho scans the scene.

Moonlighting Every April, Milan plays host to the main event of the furniture world, the Salone del Mobile, an international fair where the industry's major (and minor) manufacturers convene to introduce their latest lines. Acres of pavilions are crowded with everything from the traditional to the contemporary to the quirky. This year's fair achieved no revolutions, demonstrated no apotheosis of any prevailing design geist. High-end producers, particularly the Italians, have not yet tired of classically minimal designs-an aesthetic of reduction that pushes basic geometric elements to their most slender, elongated, and refined state (B&B Italia, Ligne Roset, Driade). Meanwhile, as in fashion, 1960s and 1970s revival is the dernier cri, with countless companies, large and small, displaying both new and knock-off bubbly, plasticky, shaggy, candy-colored forms. Expressionist shapes aside, the innovative edge is (as perhaps has always been) occupied by those who are exploring new materials or production processes, or combinations of both.

Of the many furniture-designing architects whose work debuts at the Salone, most seem to draw more from their building practices than from trends of furniture or fashion. En force, en masse, they are continuing in a tradition that has old roots: From Charles Rennie Mackintosh to Frank Lloyd Wright, early practitioners wrestled territory away from craftsmen in a quest to create total environments that shaped a total design experience. Later modernists found furniture's format well-

culture



suited for distilling their ethics and aesthetics into discrete, usable, consumable objects: Architects from Mies van der Rohe to Marcel Breuer to Charles Eames produced pieces that spread their message—and fame—as effectively as (if not more so than) any of their buildings did. The following is the latest crop of architectural ambassadors:

Kazuyo Sejima's Una Stanza Tutta per Se: Designed for Driade, Sejima has designed an entire domestic collection comprised of elemental, geometric forms—a low tatami-like bed platform, a round end table of stainless steel, a round puff-of-a-chair made from foam, and another bright, inflatable PVC chair cover. The stylized flower holder is a quirky relief to the serene ensemble.

David Chipperfield's Home Office: Also for Driade, Chipperfield's furniture family is formal, even sober. His utterly orthogonal storage and tables are made of square-section tubular aluminum frames, topped with dark mahogany.

Norman Foster's Nomos 2000: This line for Tecna is as tech-inspired as Foster's buildings are. Its adjustable steel and cast-aluminum base comes in five different colors, and is visible through its oval glass top. Antonio Citterio's *Glossy*: This table for Kartell by the maestro of minimalism is so slight it's almost not there. No one manages to get surfaces as waferlike or limbs as slender as Citterio does. Its light chromium-plated steel structure is foldable, and the white polishedpolyester surface comes in square, oval, and round versions.

Zaha Hadid's 5×2.5 , 5×0.75 Meters: Designed for Sawaya & Moroni, this collection is a new take on the sectional or system furniture. Pieces are individual swoops that fit together to create an undulating landscape. They separate, continental-drift-like, into islands that could be seen as divans, settees, end tables, etc. The collection is as iconoclastic as Hadid's architecture, demanding somewhat unfathomable conditions (for example, a cavernous living room!) in order to be functional.

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Taken for Granted

Grant money for architects is relatively ample—and unclaimed. **Christopher Hawthorne** investigates why architects eschew the grant path.

Funding Every January, the Architectural League of New York City hosts a panel on grant opportunities for architects and designers at its headquarters, the Urban Center, home to activities related to the built environment (including the city's Municipal Arts Society and Parks Council). The panel usually includes many of the biggest guns in the nonprofit architecture world: representatives from the American Institute of Architects, the New York State Council on the Arts, and the American Academy in Rome, among others. The panel is popular, regularly filling the hall's 150 seats.

And yet, those who sit on the panel and others who fund architecture and design programs say they're consistently baffled by the low response to various grant opportunities. "Every year, we bring a big stack of applications [to the Urban Center] and talk about our programs," says Penelope Dannenberg, director of programs at the New York State Foundation for the Arts (NYFA), which provides fellowships for architects and designers every other year. "And when our deadline rolls around we just hold our breath."

For its grants in the visual arts, Dannenberg says, NYFA receives as many as 1,600 applications. For its architecture programs, it usually gets a fraction of that number; this year, even after a big publicity push, the department drew only 85 requests for funding. "I don't think architects are in the grant-seeking mode," Dannenberg says. "We can't figure out why more of them don't apply."

Anne Van Ingen, who runs the architecture, planning, and design program at the New York State Council on the Arts, tells a similar story. "As a general perception, I'd say the design community does not think about applying for grants," she says. "If you're a painter it's been drilled into you, from the time you're in school that you are going to need grant money to survive. Architects just don't think that way." The program for architects and designers that she oversees received only 57 applications during its most recent annual round, down from 78 the previous year. By contrast, in its most recent round for new-media artists, the Council received 324 applications.

While these trends continue to vex funders, they also mean that the odds of winning grant dollars in architecture and design are pretty good. The Chicago-based Graham Foundation, the best known of the few

organizations that provide funding for individual architects, gives money to about one in four applicants. Even after much-praised recent efforts by Mark Robbins to increase the visibility of the design program at the National Endowment for the Arts, the number of grant requests in that department for fiscal year 2000 was about one-quarter of those the NEA gets from visual artists. Roughly 60 percent of grant requests in Robbins' department were at least partially funded last year.

And those are among the better-known funders. There are also some hidden sources of money for architects, and those, predictably, get even fewer applications. There are certainly plenty of architects unaware that the MacDowell Colony in Peterborough, New Hampshire—the oldest art colony in the United States—is required by its original charter to accept architects among its artists in residence. Of course, not every source of grant money for architects accepts unsolicited applications, but those in the field say that disappointing application numbers for grant programs reflect a low level of awareness among architects about funding opportunities of all kinds.

Some of those opportunities, to be fair, no longer exist: Following a 1996 congressional mandate that came in the middle of the firestorm over public arts funding, the National Endowment for the Arts was prohibited from awarding grants directly to individuals. And while federally funded competitions like the one in 1980 that produced Maya Lin's breakthrough design for the Vietnam War Memorial are still around, very few people would argue that the spirit of public engagement in the arts is as robust today as it has been.

Private sources are still behind most of the big-dollar—and most widely publicized—grants and competitive awards. The Canadian Centre for Architecture's newly instituted International Foundation (IFCCA) awarded Peter Eisenman \$100,000 for winning the first installment of its "Competition for the Design of Cities" last year—the same amount given in architecture's prime honor, the Pritzker Prize. The Getty's new "Preserve L.A." initiative, part of its Architectural Conservation Grants program, will hand out up to \$250,000 to organizations to fund conservation work on Los Angeles' historic architecture. Thanks to the number of zeros attached, this is the kind of nonprofit largesse reported in the press.

culture



"People are surprised about architects being in an artist colony because their work is not considered a fine art. But architecture shouldn't be put strictly into the category of a practical art either."

Cheryl Young, executive director of the MacDowell Arts Colony

Yet the vast majority of architectural grants are modestly sized. The Graham Foundation, for example, awards more than \$1 million in grants every year, but they average less than \$10,000 each. A typical recipient is Daniel Mihalyo, a Seattle architect who won a \$7,500 grant from the Graham Foundation in 1996 to study wood burners, a building type that was once ubiquitous across the Pacific Northwest but began to disappear by the early 1990s, as the sawmills the burners served began to go idle. Princeton Architectural Press agreed to publish the results of his research in a 1997 book. "The book wouldn't have happened if I hadn't have gotten the funding," says Mihalyo. "But more than the



"Grants can help architects seek alternatives inside and outside the practice of architecture. My first Graham grant triggered a series of unanticipated events that took my career in a whole different direction."

Kent Larson, architect, Graham grant recipient, and director of MIT's House_N Project.

money, what was great was that somebody out there thought this was worth studying and was willing to validate the work of an unknown."

Architect Kent Larson is similarly grateful for his Graham grant, which he credits for his current career as a research scientist at MIT's School of Architecture and Planning. The grant funded his research of architectural history through high-end visualization tools, which led to publications, inclusion in a museum show, and ultimately, an academic post. Grant money also winds up in some places you might not expect to find it. In Chicago, money from the Richard H. Driehaus Foundation is helping students at Archeworks, a Bauhaus-style "school" founded by

culture

Eva Maddox and Stanley Tigerman, explore the intersection between architecture and social change. This year, among other projects, they're designing spaces that will house Alzheimer's patients, trying to lessen the disorientation they are apt to feel when walking down corridors and climbing in and out of cars.

In the same city, the University of Illinois at Chicago has received pledges of more than \$200,000 from the Fannie Mae Foundation, Driehaus, Graham, and other funders, to prepare a catalog of the best designs for public housing from the past 20 years. The 50 selected designs, to be picked from a competition, will be published on the Web and in a print version, and will be aimed at developers, architects, and policy-makers.

Most foundation leaders say the reason so few architects are applying for grants these days is the powerhouse economy, which is keeping them busy with commercial projects. But others contend that even in an economic downturn, architects are still relatively disinclined to turn to nonprofit support. When times are tight, says NYFA's Penelope Dannenberg, "architects have skills, like drafting, to fall back on. They don't have to become waiters."

For just that reason, artists in other disciplines often chafe at the very idea of architects seeking grant dollars. According to New York Arts Council's Anne Van Ingen, "I've heard a number of visual artists say, 'It's outrageous that nonprofit money is going to architects. They have other ways to support themselves."

Architects themselves suffer plenty of doubt along these lines, often worrying that they're taking nonprofit money from proverbially starving artists. Leslie Gill, a New York architect who also helps run the Chrysler Awards (a \$10,000 prize given to six designers each year), says that when she began applying for grants early in her career she usually included a request for architect's fees. But one very prominent architect, whom she asked go unnamed, refused to write a letter of recommendation because he objected to the fact that architects' fees were part of Gill's application. "He felt that the work had to be completely pro bono, and that to ask for a fee for one's research and creative time was unethical," she says. "Among visual artists, of course, the opposite is true: It's considered extremely unprofessional not to seek those fees."

Architects, Gill adds, rarely think of a project funded by nonprofit money as a natural outgrowth of their regular practice. "It's considered ancillary to the rest of your work, and outside of it. It's not a part of what you do or who you are. It's a habit you support."

Architecture, of course, has always had a split personality, its commercial and artistic-academic arms in uneasy coexistence. But one should not be considered a threat to the other. Observes Graham Foundation director Richard Solomon, "What grants really do is lubricate conversations about architecture." Nonprofits are the mediators of the architecture world, passing the microphone from one speaker to the next, doling out precious minutes of exposure.

It's only too bad they can't get more architects to tune in.

The following organizations offer grants to architects:

Architectural League of New York

Hosts the panel "Grant Opportunities for Architects and Designers," third week of every January. Awards the Deborah J. Norden Travel Fellowship, for students and recent graduates. Deadline: early April.

457 Madison Avenue, New York, NY 10022. www.archleague.org (212) 753-1722

American Academy in Rome

One-year Rome Prize in Architecture and six-month Rome Prize in Design Arts. Also awards sixmonth and one-year fellowships in landscape architecture, historic preservation, and conservation. *Deadline: November 15.* **Programs Department**, **7 East 60th Street, New York, NY 10022-1001.** *www.aarome.org* (212) 751-7200

Fannie Mae Foundation

Focus on supporting affordable housing opportunities and community development. *Deadline: none (grants awarded on a rolling basis).* North Tower, Suite One, 4000 Wisconsin Avenue, NW, Washington, DC 20016-2804. www.fanniemaefoundation.org

Getty Grant Program

(202) 274-8000

Funds projects related to research in architecture and the visual arts. Getty Research Grants target individuals, and Architectural Conservation Grants, organizations. *Deadlines vary*.

1200 Getty Center Drive, Suite 800, Los Angeles, CA 90049-1685. www.getty.edu/grant (310) 440-7320

Graham Foundation for Advanced Studies in the Fine Arts

Maximum grant for individuals is \$25,000; for institutions, \$50,000. Deadlines: January 15 and July 15. 4 Burton Place, Chicago, IL 60610. www.grahamfoundation.org (312) 307-5000

MacDowell Arts Colony

Residencies last two weeks to two months. *Deadlines: January 15, April 15, and September 15.* **100 High Street, Peterborough, NH** 03458. *www.macdowellcolony.org* (603) 924-3886

National Endowment for the Arts

New Design Initiatives, with focus on public projects.

The Nancy Hanks Center, 1100 Pennsylvania Avenue NW, #614, Washington, D.C. 20506-0001. http://arts.endow.gov (202) 682-5570

Richard H. Driehaus Foundation

Funds projects in architecture, landscape, and urban design that improve low-income neighborhoods. (Accepts inquiries and proposals on a rolling basis). 203 North Wabash, Suite 1800, Chicago, IL 60601. Email: driefdtn@aol.com (312) 641-5772

Van Alen Institute

Annual design competition with exhibition and cash prize. Biannual Van Alen Institute Dinkeloo Fellowship, an open portfolio competition. *Deadline: November*. **30 West 22nd Street, New York, NY 10010.** *www.vanalen.org* (212) 924-7000

architecture



LIVING WITH THE BOX

The modern box building has been around as long as living memory. In its infancy—when the white paint was fresh on the Dessau Bauhaus—the box stood, radically, for nothing, at a deliberate distance from tradition. Whatever meaning its authors ascribed to it arose in free association with the liber-ating possibilities of modernization, industry, and social change.

Contemporary politics being personal, the power of the box now arises from the cumulative effect of individual experiences. Chances are we were born in a box, went to school in one, work in one, have stood in line in one. The box has become quotidian, a source of nostalgia rather than a sign of revolution. It's a thing of the past, and with a past; a cultural creation as semantically laden as the classical column or the pointed arch.

The six projects in this issue, and many others in recent years, stem from the first fruits of Le Corbusier, Ludwig Mies van der Rohe, and Walter Gropius. Yet they are infinitely more rarified, of a hothouse variety as mannered as it is minimal. Video artist Iñigo Manglano-Ovalle and historian Farès el-Dahdah have taken up the subject as well, through separate critical studies, in equally innovative media, of perhaps the most famous modern box of all: Mies' Farnsworth House (1951). No matter how we approach it, the contemporary box bears enough self-consciousness, wit, and irony to make Giulio Romano's heart leap.

The evocative ambiguity of translucent glass has replaced the crystalline clarity of high modernism, as seen in day and night views of RCR Architects, Aranda Pigem Vilalta's social center, in Riudaura, Spain.





THE NEW BOXSTERS BY AARON BETSKY

Almost a century ago, Frank Lloyd Wright reduced architecture to the manipulation of the box. Nearly a century later, a generation of young architects, the New Boxsters, is taking up the call for an architecture of beautiful boxes that Wright issued with his Unity Temple, and later Mies van der Rohe distilled in the Barcelona pavilion and the Farnsworth house. This new group is attempting to prove that architecture can be reduced to the simple problems of how to state the open box and then dress it up.

Things have changed since the days of Mies and Wright, of course. The New Boxsters are making objects that are simpler in plan and more complex in their skins. In an era when image is everything, they are creating visual and sensual statements, not spatial puzzles. Instead of the confident exposition of new forms, they play with inherited forms. Walls slip and slide past each other, skins are doubled and tripled, and programs are simplified until there is nothing left but a loftlike space. They break open the box with a nudge, a wink and a sleight of hand. What is left is a bare skeleton of construction clothed in haute-couture robes. If Wright and Mies thought of architecture as the herald and the engine of the new, the New Boxsters selfconsciously delight in their ability to restate what we already know.

It's all about pose. The levitating volume of Maya Lin's Langston Hughes Library (page 104), or the elegant veil of transluscent glass on Wiel Arets' warehouse (page 90), transforms a simple shape into an object that rewards further contemplation. Angélil/Graham/Pfenninger/Scholl's small commercial building in Esslingen, Switzerland (page 114) cantilevers out into space, recasting what is essentially a grocery market as a highly aestheticized pavilion. Often at the very edge of falling apart, these boxes remind us of how much work they do to stay together, and ask us to admire them for that effort.

Once the architects have reduced their task to the making of a beautiful box, their attention to the skin becomes even more important. The goal, after all, is to create a simple space that is not closed, and a skin that transforms that simplicity into a complex cloak. The wood in the Langston Hughes Library may make the building Fit in with the historic structures around it, but, set off by the milky glass Lin has slipped beneath, it also becomes a sensual device that enhances the visual with the tactile. Similarly, the Arets warehouse uses a structural glass that Europeans recognize as industrial vernacular; here it translates a simple space into a luminous object. The concrete Frame of Valerio Olgiati's schoolhouse (page 122) heightens the noise that children make, until the woodlined classrooms surround them with a soft cocoon that opens only to the landscape. The basic Facts of these buildings are so clear and enticing because they are made of

Iñigo Manglano-Ovalle's video installation Le Baiser (from which these stills are taken) is an homage to Mies van der Rohe's Farnsworth House. As viewers look through a scale model of the house, a video shows a jumpsuited man outside the house washing its windows, while a DJ spins records inside. His "kiss" is both physical and metaphorical-as Manglano-Ovalle swabs water on the glass, temporarily making it opaque, and then squeegees it clean again, his actions focus the viewer's attention on the house's transparency. The project also addresses the troubled relationship between Mies and Edith

Farnsworth through the figures of the window washer and the DJ: The window washer attends solely to the building itself, carefully tending its surfaces, while the woman inside fills the space with music unheard by the man outside. The project appeared in the 2000 Whitney Biennial and at the Museum of Contemporary Art in Chicago, Manglano-Ovalle, Associate Professor of Art and Design at the University of Illinois, is collaborating with Phyllis Lambert on the Canadian Centre for Architecture's Mies in America. The show will open at the Whitney in June 2001.

simple components, clearly stated and intricately elaborated. The complex simplicity the New Boxsters create from the bare bones of the box thus comes not just from a modernist style, but also from the attention the architects lavish on the materials and methods of construction. They have little concern for the political agendas or geometric systems of their predecessors. They care only about the object itself.

This minimalism is not modest, either in its effect or budget. It is architecture at the end point of its development. Modernism, which was supposed to supplant all styles, has itself become a style. The basic box has become precious for its own properties; we have reached a point where architecture is essentially about itself. The new Boxsters perhaps fulfill Mies van der Rohe's promise of "almost nothing," but what is left is only the thing itself in all its tenuous glory.

This would seem to contradict the assumption that architecture is at least partly responsible for addressing our increasingly confusing world. Should it not become more complex in order to house computers, answer the barrage of images we see on television, and make buildings for ethnically diverse audiences, for instance? The New Boxsters argue that architecture should not try to compete with cell phones and advertising, but instead <u>carve out one</u> simple task for itself. While modernists [and classicists before them) sought to discipline diversity with more and more complex systems of building and aesthetics, this new generation of designers makes things that are so simple in form, beautiful in appearance, and open in structure that they can respond to all that complexity with their mere presence.

In sum, the New Boxsters make a case for clarity. They argue for a modest moment of beauty as a tonic for an increasingly confusing visual landscape. It may not be much, but perhaps it's enough. It is certainly better than mining ancient architectural history, or summoning other crutches on which design can rest. "To what then could I have aspired in my craft?" Aldo Rossi asked in 1977; "Certainly to small things, having seen that the possibility of great ones was historically precluded."

In *The Art and Craft of the Machine*, Frank Lloyd Wright predicted "The new will weave for the necessities of mankind a robe of ideality no less truthful, but more poetical, with a rational freedom made possible by the machine, beside which the art of the old will be as the sweet, plaintive wail of the pipe to the outpouring of the full orchestra. It will clothe Accessity with the living flesh of virile imagination, as the living flesh lends grace to the hard and bony human skeleton." Now that "the new" is a century old, the New Boxsters are finally weaving clothes around their simple skeletons that can fulfill Wright's promise.





The perimeter walls (above and facing page), sitting on a concrete base, were built using Reglit, a cast-glass system. In this case, the façades are actually two walls separated by a cavity containing the steel columns and cross-bracing. The Reglit units are cast-glass U-shaped members with high structural integrity and are supported by steel plates at the top and bottom. Because these custom members are 30 feet in height, stainless steel clips between the strips are screwed to a horizontal beam to provide additional wind-bracing. The ceiling (above) is the underside of the corrugated-metal roof decking.



Dutch furniture manufacturer Lensvelt's new facility, located in an industrial park near Breda, The Netherlands, houses a warehouse, assembly plant, office, and showroom. The building is doubled-glazed, using a system made of cast-glass channels which run vertically around most of the perimeter. When the 26-foot-tall interior volumes of the 68,000square-foot structure are brightly lit, the building assumes an ethereal quality; its façades become translucent and it glows like an enormous lantern. In contrast, two opaque boxes mark access into the building. Pedestrians enter an interior courtyard under a cantilevered steel-clad box, which houses a conference room and appears to hover in the air when viewed from a nearby freeway. Another similarly detailed box directly across the courtyard is raised only slightly and is the main entrance to the building.



Two pivoting doors (above) that lead into the assembly hall are framed in steel and mounted flush with the façade. The doors are also constructed with Reglit channels. The typical span is a module of approximately 24 feet. Interior partitions are stucco (near right), and the floors are concrete.

West elevation 23'

- lounge
- showrooms
- Reglit-glazed façade at factory
- d fire escape









A large, steel-paneled box on the east side (above, left), housing the second-floor conference room, cantilevers eight feet above the ground and marks the entrance to an open



courtyard around which showrooms are located. Another box on the west side (above, right), only slightly raised, houses the employee lounge and the main entrance off the interior courtyard. The loading docks (below) on the east side are raised to the height of the delivery trucks.



Corner Detail

The wall is double-glazed using the Reglit System manufactured by Pilkington. The building's structural system is steel-framed and sits within a 2-foot cavity between the Reglit walls.

The U-shaped Reglit sections are cast in a computer-controlled furnace to insure accurate dimensions and structural integrity. The sections are secured by steel plates at the floor and roof and sealed vertically with silicone. This system normally does not need to fasten to the steel frame. Because these glass-cast sections are 30-feet tall, they are tied at the midpoint to a horizontal beam.

Steel angles support the glass wall at the corners.



2"

LENSVELT FACTORY AND OFFICES, BREDA, THE NETHERLANDS

CLIENT: Lensvelt, Breda, The Netherlands ARCHITECT: Wiel Arets Architect & Associates, Maastrict, The Netherlands—Wiel Arets, Ivo Daniëls, René Thijssen (project team); Paul van Dongen (collaborator) LANDSCAPE ARCHITECT: West 8 ENGINEERS: Engineers' Bureau (structural); Huygen Raadgevende Engineers (mechanical, electrical); Cauberg-Huygen Raadgevende Engineers (HVAC); Traject Vastgoed & Advies Group (building management) GENERAL CONTRACTOR: Korteweg Bouw COST: Withheld at client's request PHOTOGRAPHER: Christian Richters

The Reglit U-shaped glass sections rise 30 feet and are independent of the steel frame structure.



ARTIFACT DESIGN + CONSTRUCTION SAUNA PAVILION

"It would have been hard to screw this project up, because the place was so beautiful," says Sal Tranchina of Artifact Design + Construction. Tranchina and his partner, Christopher Kilbridge, built their sauna pavilion on a pond-side site thick with pine, hemlock, and birch trees—part of a 100-plus-acre estate in the Berkshire Mountains of Massachusetts. The Appalachian Trail glances across one edge of the property, which includes surviving buildings from a 19th-century Shaker village. Such poignantly simple surroundings suggested a palate of simple materials to the architects—insulated glass, red cedar planking, and green slate pavers—arranged as a simple composition of floating walls and roof. At the heart of the pavilion is a copper cube that contains the sauna chamber. The architects left these materials largely untreated, in the hope that over time, says Tranchina, "the pavilion is going to become part of the woods."

The pavilion's copper, cedar, and concrete surfaces help it blend in with the natural surroundings; the effect will increase as the copper oxidizes, the wood fades to gray, and moss grows on the split-face blocks. A long cedar gangplank, supported by concrete piers, projects out of the pavilion; bathers can dive off it into the lake below to cool off after a long session in the sauna chamber.





The gangplank slips past a cedar-wood screen wall (above), and connects with a deck (at right); a single punched window in the copper-clad steam room overlooks the lake. The screen wall continues on the pavilion's west flank (facing page, top); thicker on this side, it houses a closet, mechanical room, outdoor shower, and woodshed. The architects built up the slope along the water with a retaining wall of splitface concrete block (facing page, bottom).









Section Through Steam Room

A ³/4-inch stained pine trim surrounds a custom wood-framed window, guadruple-glazed to deal with the wintertime difference between inside and outside temperatures.

On the floor beneath the stove, a 1 ¹/4-inch bluestone slab sits on a mortar bed above a 4-inchthick concrete slab, with a 2-inch-thick layer of rigid insulation below. The insulation rests on gravel fill.

A geotextile mat separates the CMU foundation, 18-by-8-inch concrete footing, and a 6-inch perforated foundation drain from the earth.



Glulam beams support the overhanging roof; painted pine fascias and painted plywood soffits conceal a layer of built-up rigid insulation with a double-ply modified bituminous membrane on top.

The wall of the sauna is framed in 2-by-6-inch members, enclosing fiberglass batt insulation. Between the inner layer of insulation and the exterior copper skin are ³/4-inch plywood sheathing, 1-inch furring strips, and a building wrap stapled onto ¹/2-inch plywood sheathing.

The sauna's interior is paneled in tongue-andgroove cedar siding nailed to 2-inch furring strips. This allows for air to flow behind the siding to prevent warping.

Where the stove sits, a 1 ¹/4-inch-thick bluestone slab clads the interior wall up to the window sill. The slab attaches to the wood framing behind with wire anchors; a 1-inch space separates the wood from the stone.

A 2-by-6-inch sill is anchored into the CMU foundation below. A vapor barrier separates the CMU from the granite wall surface and floor slab.

SAUNA PAVILION

BERKSHIRE MOUNTAINS, MASSACHUSETTS CLIENT: Withheld at client's request ARCHITECT: Artifact Design + Construction, New York City—Christopher Kilbridge, Salvatore Tranchina (partners-in-charge) CONSULTANT: Zachary/Siff Group (doors) GENERAL CONTRACTOR: Quadresign COST: Withheld at client's request PHOTOGRAPHER: David Joseph
Debut

Artifact Design + Construction

New York City

Principals: Christopher Kilbridge, Sal Tranchina Artifact Design + Construction partners Sal Tranchina, 33, and Christopher Kilbridge, 36, met while graduate students at Columbia University's architecture school. After graduating, Tranchina cut his professional teeth at Gabellini Associates, Kilbridge at Garrison Siegel. They founded their New York City-based practice more than two years ago when they received the commission for the sauna pavilion. The firm has since grown to four people, thanks to a number of current residential projects, as well as the forthcoming renovation of a 400,000-square-foot Manhattan warehouse into an office and data center for a major internet company. A frame of glulam posts and beams serves as the pavilion's structure (below); interior floors are green slate, and the railing is made of cedar handholds, stainless-steel anglestock uprights, and aircraft cable. Insulated glazing and heat from the sauna's woodburning stove (facing page) are sufficient to keep the pavilion warm in winter.



The Steel Trap

A CAITICAL FICTION IN THREE SCENES BY FARES EL-DAHDAH



PROLOGUE

ILLUSTARTIONS by ZOHAR LAZAR

"Legal stones were hurled last month over the glass house Ludwig Mies van der Rohe designed for Dr. Edith B. Farnsworth on the banks of the Fox River, near Plano, Illinois," reported *Architectural Forum* in the winter of 1951. Indeed, six years after Farnsworth commissioned the house, Mies sued her for nonpayment. Farnsworth replied with a countersuit, claiming that her architect had spent twice the anticipated budget.

The Chicago Tribune, the client's sister, and the architect's biographer, Franz Schulze, all seem to agree that, soon after their meeting in 1945, Farnsworth, "a Chicago physician," and Mies, "the head of Illinois Tech's School of Architecture," became "fast friends," "had an affair," or "a romance." Schulze goes so far as to assert that for Farnsworth "the house symbolized their union." Mies' biographers often describe the relationship in stereotypical romantic terms, depicting Farnsworth as a vexed woman who could not have rejected her own house because she truly disliked it. Mies himself claimed, "The lady expected the architect to go along with the house."

The degree to which the Farnsworth House may well have been the site of, if not the pretext for, an affair between client and architect is a matter of gossip. The result of their subsequent dispute, however, is a building caught between Mies' attempts to render it as "a neutral frame where human beings and works of art may live their own life," and Farnsworth's conception of that frame as a glass-and-steel cage in which she felt "like a prowling animal always on the alert."

In his *Fragments d'un discours amoureux* (Seuil, 1977), French literary critic Roland Barthes used passages from such famous romances as Goethe's *The Sorrows of Young Werther*, as well as scenarios of his own, to eloquently analyze the genre. In a similar spirit, the tale of Farnsworth soliciting Mies' architectural services suggests a narrative of three nonsequential scenes. This fiction is rendered in Farnsworth's voice and incorporates gossip that permeates all of Mies' biographies and monographs; statements drawn from those sources appear in quotes.

Maya Lin's reconstruction of a typical Tennessee cantilevered barn (at right) now houses the Langston Hughes Library, which focuses on African-American history and literature. The building type, seldom found in the rest of the country, was common in Eastern Tennessee from the early 19th century until the 1930s.

MAYA LIN STUDIO LANGSTON HUGHES LIBAAAY

On an Eastern Tennessee farm once owned by *Roots* author Alex Haley, Maya Lin transformed an abandoned wooden barn into a library for the Children's Defense Fund. The original building is an example of a local type known as the Tennessee cantilevered barn, in which a standard-looking shed is perched above two rough log cribs. The shaded area under the eight- or ten-foot overhang once provided shelter for farm animals, and the elevated barn floor allowed hay and grain to dry more quickly. For her design, Lin left the rough exterior largely intact, and created a series of pristine rooms inside. She lined the once-open cribs with frosted glass walls and a slate floor. Chinks between the logs admit light into the two new rooms, one of which holds a gift shop, and the other a stairway and elevator to the library above. The reading room is illuminated primarily by skylights and one window that frames a view of the landscape.





The Langston Hughes Library is the latest addition to the Haley Farm, a 157-acre retreat in Clinton, Tennessee, (facing page, top left and right) operated by the Children's Defense Fund. The 1860s barn had to be dismantled and entirely rebuilt: The two log cribs that once supported it sit on a new foundation (sections, below) and wrap the steel structure which now bears the load of the library above. Where Lin had to slice into the crib to make larger openings for doorways, she put in threaded steel rods to support the timber (right). The dogtrot between the cribs contains a stone fountain, also designed by Lin (facing page, bottom left).

elevator and stairway

- reading room
- stacks
- bookstore and gift shop





East-west section 4' <



North-south section



One crib serves as the library's gift shop (facing page, top), and the other holds the stairway and elevator (top) that bring visitors upstairs. Skylights above this entrance fill it with light, and light boxes set into the siding suggest the shadow pattern of the crib logs below (bottom left and right). The reading room (facing page, bottom left and right) is intended to focus one's attention inward: smooth maple siding and particle board contrast with the roughness of the barn's exterior. This division is deliberate: Lin imagined the library as a separate layer that slips up into the barn's shell.











architecture 07.00 109

The two cribs are the points where the old and new most clearly meet: The entrance (facing page) signals this transition with its contrast of rough logs and smooth glass and slate.

Section Detail Through Cribbing



LANGSTON HUGHES LIBRARY, CLINTON, TENNESSEE

CLIENT: Children's Defense Fund, Washington, D.C.-Marion Wright Edelman (director) **ARCHITECT**: Maya Lin Studio, New York City-Maya Lin (principal); Stas Zakrzewski (project architect) **ASSOCIATE ARCHITECT**: Martella Associates, Knoxville, Tennessee-Margaret Butler, Russell Hopper (principals) **ENGINEERS**: Robert Silman and Associates (structural); Kelso Regen Associates (mechancal, plumbing) **CONSULTANTS**: Heuristic Workshop (furniture fabrication); McGinty (graphic design); L'Observatoire International (lighting) **GENERAL CONTRACTOR**: Leon Williams **COST**: Withheld at client's request **PHOTOGRAPHER**: Timothy Hursley





SCENE I RAVISHMENT In order to build a weekend country house, I requested the names of famous architects from the Museum of Modern Art. I wanted to do "something meaningful."

I hired Mies on the basis of geography: We could easily meet in Chicago. A moment of ravishment affirmed my choice of architect: He was brilliant. I could enthusiastically project into a pleasant future: Let us build a modern house. I said yes to everything, to all the demands of modern living: "I let him do everything he wanted."

Mies may have become the object of my desire, yet for him I am an object and nothing more, a mere instrument of measure: "Walk up to the terrace level so that I can have a look at you. Good. I just wanted to check scale."

As soon as the house was completed, Mies publicized it heavily. Its images appeared everywhere. He posed in them proudly, yet I was never there. Precise, detailed, definitive, the house leaves no room for me. My photographic absence is odd, almost active. I occupy a house designed to yield highly photogenic results, a house "dedicated to the contemplation of nature." Granted I am no Nature, but I belong in every frame. I inhabit an apparatus that frames trees: "There is a certain brutality about having the outside inside," for Nature, as in so many allegorical paintings, replaces me.

Mies left, and I remain. I refused to pay; I even sued, perhaps in order to delay as long as possible the moment when his absence might become real, when he might become unreachable. "The alienation which I feel today must have had its beginnings on that shady riverbank all too soon abandoned by the herons which flew away to seek their lost seclusion farther upstream."



deliveryparking garage

roof

On the market interior, the corrugated metal decking and steels beams were left exposed (right). The flooring is plywood on built-up metal decking. Interior design services were excluded from the scope of the project.



RNGÉLIL/GRAHAM/PFENNINGER/ SCHOLL ARCHITECTURE ESSLINGEN MARKET

The Market is a recent addition to the town center of Esslingen, Switzerland, a village on the outskirts of Zurich. Los Angeles- and Zurich-based architects Marc Angélil and Sarah Graham won an international competition in 1989 to redesign the town center, which included the design of a new train station and post office. The Market is the final public project of the redesign. To meet the program requirements for fast and inexpensive construction, the architects designed a light, prefabricated steel box using inexpensive materials. It was built in just four months. There is no foundation. The box sits on steel beams atop an existing concrete parking garage and cantilevers 13 feet beyond the western edge of the garage roof. Thin concrete panels attached to the east elevation weight the box and prevent it from overturning.



At the client's request, only the entrance to the market is glazed (left). Prefabricated concrete panels (below) running about 90 feet along the east façade provide a counterweight to the building's cantilevered section on the west. The opening in the panel system is for deliveries.











Section 5'





The market cantilevers 13 feet beyond the edge of an existing parking structure (left). The south and west facades (above, top) are wrapped in a continuous, perforated metal skin which shields the windows from direct sunlight. Notices are tacked to the concrete panels (above, bottom) on the east façade, facing the public-transportation square.



"You should have heard him, you can't imagine what an exhibition of ignorance he put on!"

Mies transformed. The image of the architect suddenly altered. "He didn't know anything about steel, its properties or its standard dimensions. Nor about construction, high school physics, or just plain common sense. All he knows is that guff about his concept, and in the Kendall County Courthouse that doesn't go down. I tell you, we had him sweating bullets—he was heard to say afterwards that he would never start another lawsuit."

"For someone who had spent so many happy hours with Mies between 1946 and 1949, and who had a fairly sound idea of what kind of building he had prepared," it may seem odd that I should so dislike it. Mies, however, provoked. The furniture had to be his, not mine. He wanted me to sit in a chair "that freezes you in one fixed comfortable position." This house will never look (as long as I live in it) like the one he designed. Everything I touch would have been his (or him) had I not refused his furniture.

Turn back, look at me, see what he made of me. I am the statue he did not place in my house. I am a figure in an interior perspective; a statue sculpted by Kolbe, Maillol, or Lembruck; all the female figures he included in his previous houses, but omitted in mine. My punishment was petrification: Mies treated me like an object no different from a Barcelona chair or a cruciform column.

I cannot live with Mies' architecture, when "there was no thought of me at any time." I must protest against the architect, who "is not the clairvoyant primitive that I thought he was," and against what he calls architecture. "Something should be said and done about such architecture as this."



VALEAID OLGIATI AACHITECTURE PASPELS SCHOOLHOUSE

While undoubtedly a box, the new schoolhouse in Paspels, Switzerland, is subtly distorted in plan and elevation—like a cube skewed by the seismic force of the looming Grisons Mountains. "Paspels is a white object in the landscape, like a stone," says the school's architect, Zurich-based Valerio Olgiati. "It's not cozy, but what in nature or in the mountains is?" This unsentimental attitude extends to the bare concrete surfaces of the school's interior corridors: A central hallway is flanked by classrooms on the first floor and, on the two floors above, cruciform hallways separate four corner classrooms. Olgiati likens this interior organization to the intersections of village streets, the woodpaneled classrooms to the parlors in local homes.



Architect Valerio Olgiati's schoolhouse sits in a field on the edge of the remote village of Paspels, Switzerland, facing the school's old building. The school's severe concrete form, a subtly modulated cube, serves as a foil against the dramatic Grisons Mountains in the background.



Aside from the canopy over the school's entrance (right), flush and indented windows (far right) are the only elements to break the geometric near-purity of the concrete box. The school is built of two structural layers of concrete, as seen in the detail (facing page). Olgiati left the concrete exposed in the interior hallways (above).





Wall Section Through Window in Hallway

A wide gutter runs along the edge of the roof just behind the concrete parapet. Its wood-plank sides are covered in a bituminous wrap. The plank continues up and over a wood member atop the concrete parapet.

In the hallways, the schoolhouse's concrete walls – actually comprise two 25-centimeter-thick layers, tied with metal rods. Both layers are structural and sandwich a 12-centimeter-thick layer of foam insulation. In the classrooms (not shown) wood paneling substitutes the inner layer of concrete.

Metal pins drilled into the concrete attach to metal angles that hold the bronze window frames in place; the window frames house two layers of insulated glass. Bronze plates conceal the insulation directly above the frame.

PASPELS SCHOOLHOUSE PASPELS, SWITZERLAND CLIENT: Political Community of Paspels ARCHITECT: Valerio Olgiati Architecture, Zurich—Iris Dätwyler, Peter Diggelmann (project managers); Raphael Zuber, Gaudenz Zindel (project assistants) ENGINEERS: Gebhard Decasper (structural) COST: \$2.25 million PHOTOGRAPHER: Heinrich Helfenstein







Second-floor plan



Third-floor plan





The hallways (above right and left) are Spartan-simple, relieved with only polished concrete floors and a reveal at the floor and ceiling. The classrooms are paneled in oak (facing page, bottom). The doorways to the classrooms (facing page, top) have no frame; the concrete is indented to receive the depth of the door, and the hinges are pinned directly into the wall.

٦13'

Basement plan

First-floor plan







North-south section





EXPOSURE

"Boaters and campers ... are not far off."

The world is full of indiscreet neighbors with whom I must share my house; they continually disturb me. The intrusion is inevitable. After all, "the house is transparent like an x-ray." It is a form of imposed exhibitionism. I did not anticipate that in a glass house my life would become a spectacle to others. I did not know that a glass house needs no doorbell, and that you can no longer answer the door. In this house, "I am always restless. Even in the evening"— especially in the evening. "I feel like a sentinel on guard...I can rarely stretch out and relax."

Since there are no rooms in my house, the placement of the bed is of great importance; the bed, and not the bedroom, determines where I undress. Getting undressed, however, is problematic, since Mies designed the original partition in front of the bed to be five feet high "for reasons of 'art and proportion.' Well, I'm six feet tall. I needed something to shield me when I had guests...I wanted to be able to change my clothes without my head looking like it was wandering over the top of the partition without a body."

It is one thing to be partially hidden from view while undressing, and quite another to have your nudity cut off where it begins (at the neck). Mies' neutral frame is not without sharp edges. It can slit a throat as easily as it can crop an image of a landscape.

"The Steel Trap" is adapted from an article that first appeared in Any, no. 11, 1995.

RCR's social center is a T-shaped building whose primary volume (both pages) is on a north-south axis; it is an open rectangle (this page) that can serve as an exhibition space or as a seating area for the stage. A small stone bar at the southern end of the room (facing page, center) is adjacent to an outdoor patio (facing page, left).

C.C.C.C.A

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ACA AACHITECTS AAANDA PIGEM VILALTA RECREATION AND CULTURAL CENTE

Riudaura is a tiny Catalan town in the Spanish Pyrenees where there are three public buildings: a church, a town hall, and a social and cultural center. The last, a building completed in 1999, looks like nothing else around, and according to Ramón Vilalta, one of its designers, was greeted with skepticism. "At first, it was only the mayor who supported it—all of the other architecture in Riudaura is traditional—but now the people have accepted it and use it constantly." RCR Architects, which consists of Vilalta and his partners Carmen Pigem and Rafael Aranda, designed the metal-clad concrete building to be flexible enough to accommodate whatever uses the town's 423 residents might dream up: there is a stage, a bar, storage for props used in the annual festival, and even a small office for the local tourism agency.







The center lies across a slight depression in the land, and frames a small plaza (above). Because of this slope, one enters at grade and looks down to the stage and seating area (facing page, right). A dark, oxidized metal roof over the frosted glass façade underscores the building's low-lying, linear quality, which RCR intended as a complement to the verticality as a the church tower (facing page, left).









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Ground floor plan $\ \ 9' <$

East-west section

East Side Wall Section

The parapet bounds a terrace that is covered in 15-3/4-by-15-3/4-inch terrazzo tiles and connects to the bar inside.

1-1/2-inch square tubes connect to the L-brackets and hold up sheets of 2-mm-thick steel, which provide a surface for additional smaller sheets of steel to be attached.

To give the wall texture, some of the metal cladding is raised ³/4 inch from the wall's surface. These strips of oxidized and varnished steel—which range in size from 8- to 14-inches high—are arranged in an irregular horizontal pattern and attached to the flanges underneath.

The smaller cantilevered volume that projects out above the slope is the stage (facing page, top). Its window has a sliding panel in the center, so that during larger festivals (such as the Fiesta Mayor, when some 5,000 people from around the region converge in Riudaura) the stage will still serve bigger crowds sitting on the hillside below. The roof continues beyond the building's edge (facing page, bottom) to make a canopied passage that leads to storage rooms tucked under the stage.



15

2-mm-thick sheets of oxidized and varnished steel cover the back of the parapet and fold over onto the face of the wall.

Because the building is on a slope, the eastern elevation has two levels, while the western (or front) elevation has one. Where the eastern wall reaches ground level, a parapet of hollow brick sits above the concrete.

A tubular support or flange is affixed to the supporting metal sheet underneath it.

Metal plates screwed into the concrete connect to L-brackets which support the metal cladding.

The poured-in-place concrete walls are $11^{-3}/4$ -inches thick.

RECREATION AND CULTURAL CENTER, RIUDAURA, GIRONA, SPAIN CLIENT: The government of Riudaura, Riudaura, Girona, Spain—Enriqeta Planadecursach, Mayor ARCHITECT: RCR Architects, Aranda Pigem Vilalta—Rafael Aranda, Carmen Pigem, Ramón Vilalta ENGINEERS: Antonio Blásquez and Luis Guanter (structural) GENERAL CONTRACTOR: Bessagoda COST: \$353,000 PHOTOGRAPHER: Jordi Miralles





The warmth of the cream-colored stone floor and the oxidized metal ceiling softens the sparseness and simplicity of the interior. Pairs of translucent glass fins and a line of curving, artificial stone seats frame the stage. These fins go through the ceiling into a boxlike skylight in the roof. During the day, the fins catch sun from the skylight, and at night they are lit with fluorescent tubes.




Burgers, Fries and a Side Order of Mies

continued from page 69

The building would have been a completely glazed box with two large 152-footlong overhead trusses that spanned the restaurant longitudinally. The roof would have been suspended from the trusses, which were in turn supported by wide columns erected outside the main 68-by-135-foot volume of the building. The idea of a box suspended from an exterior truss was thus formed in Mies' mind, emerging in his design for Crown Hall, the next project he worked on. From his drawings, it is clear that the trusses supporting the load of the glazed box appeared to him first and foremost as a place to hang a showy neon sign. There are 15 conceptual drawings for it as such. This explains why the building has two longitudinal trusses extending across its length instead of a sequence of more discreet latitudinal ones, as in Crown Hall. In this case, it appears that Mies didn't mind trading in elegance and understatement for advertising surface.

The building qualifies as what Banham called "Gizmos," a product of the world of advertising and neon signs. It could also be seen as what Robert Venturi and Denise Scott Brown would later disparagingly call a "decorated shed," as well as a "duck." with the building's exterior revealing its function. A sign would not merely have surmounted the Cantor; the transparent glazed walls would have served to transform the interior itself into an advertisement for the restaurant. A clue to what Mies was thinking when he designed the building lies in the unusual lighting conditions in which he chose to photograph the model, totally different from how he represented his other projects-at nighttime, when the impact would have been most dramatic. The whole building was designed to be one big gizmo, a dazzling object, from top to bottom.

The Cantor Drive-In would not have been the first instance in Mies' career when he was moved by the poetry of a "dirty-real" urban context, and responded by opening up a dialogue with it. Many of his pre-war Berlin projects attest to this. The difference with the drive-in is the site, however: instead of a roughly textured inner city, it was a gigantic empty space where objects moved; an entirely new, ex-urban landscape created by the car and that had no equivalent in Europe—at least, not yet. The superhighway and sprawl were then, in effect, midwives to the birth of universal space.

If the Cantor Drive-in was Mies' first example of universal space, it is perhaps because it was in dialogue with sprawl itself, that raw universal space created in the landscape by the automobile. Like sprawl, Mies' building dissolves the sense of enclosure. It obliterates the distinction between inside and outside. The building is at one with the placeless space that surrounds it, part of its vast emptiness. It incorporates the unbounded, unhindered, unobstructed world that engulfs it, a space that did not yet exist in Europe.

Decades before Venturi and Scott Brown were learning from Las Vegas, here was Mies with a commission for a building on a superhighway on the outskirts of Indianapolis, responding to the hard-edged lyricism of the new postwar American landscape. While the uptight, pin-striped old boys at MoMA were bending over backward to out-Europeanize the Europeans, Mies, a new immigrant, was blithely doing the opposite, embracing his new context and approaching it with his characteristic spirit of German Sachlichkeit, or realism, with a concern for the way things-however ordinary, however "dirty real"-simply are. In the process, he had one of the most creative moments of his life. It is interesting to speculate what other directions his architecture might have taken if he hadn't let himself become reigned-in by and elevated to the Olympian heights of "quality" design. And perhaps it is even interesting to speculate what the impact might have been on the design of subsequent diners. 🖪

Liane Lefaivre is a researcher at the Technical University at Delft and the new Chair of Architectural History and Theory at the University of Applied Arts in Vienna. Her latest book, co-authored with Alexander Tzonis, is Aldo van Eyck, Humanist Rebel: Inbetweening in a Postwar World (Rotterdam: 010 Publishers). Her current book is Dirty Realist Architecture.





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Cardinal Rules

continued from page 64

By the end of design development, the two firms' relations had deteriorated badly. Cardinal was by now \$300,000 in arrears, and he was draining resources from his three other offices. At this point, he sought advice from his friend, Admiral Tom McLellan, a seasoned Washington operator and lawyer, who urged him to take a stand. Cardinal then told West he would not deliver any more drawings until the Smithsonian interceded and resolved his stalemate with GBQC. West refused. "Douglas wanted us to play referee," he says. "It wasn't appropriate to place the Smithsonian in that role." In the interest of wrongs he was experiencing. Indeed, in my brief contact with him I was treated like one of the janitors, a mere field hand in his august presence."

For their part, GBQC didn't go quietly but they probably wished they had. Their lawyers challenged their dismissal in federal court. The Smithsonian countersued, asking for compensation for various costs. The parties ended up settling, with GBQC's insurance company paying the Smithsonian \$453,593.03. "Quite honestly, it's behind us," Kihn says. "We've moved on. Too much has been said about what's happened and not enough about what's to come."

For Cardinal, the fight wasn't over yet. He received a personal grant of \$400,000 from Ann Rockefeller Roberts, Nelson Rockefeller's daughter, to complete his

Cardinal stood up during the public comment period and, clutching a beaded pipe bag, delivered a lengthy counter-presentation to a hushed crowd.

smoothing things over, West agreed to advance Cardinal \$150,000. But Cardinal says West also threatened to replace him with Jim Polshek, architect of the Suitland storehouse facility, if he failed to cooperate. "I couldn't believe he'd say that after all the work I'd done," Cardinal says.

After a flurry of last-ditch mediation by Senator Inouye and Connie Newman, the undersecretary of the Smithsonian, West asked Cardinal to forward all drawings held hostage in his computers since the previous September. He refused. In January 1998, the Smithsonian fired both GBQC and Cardinal, citing them with failure to deliver drawings on time as stipulated by contract.

Ironically, the museum's 14 Native American trustees supported Cardinal's dismissal, saying he was haughty with them while pandering to wealthy white trustees like David Rockefeller. "We could not enjoy the luxury of indulging one person who was refusing to work with us," trustee Vine Deloria, Jr., a Standing Rock Sioux tribal member, wrote in a leading native publication. "Not once, to my knowledge, did Mr. Cardinal make an effort to talk with the board of trustees and complain about the design in hopes that he might be reinstated. She also helped Cardinal draft a letter of apology to Smithsonian secretary I. Michael Heyman, the first step, Cardinal and Roberts assumed, to rapprochement.

But there would be no reinstatement. In February 1999, West installed the Polshek and Tobey + Davis team to finish the job. "Naturally, we turned to people we had great confidence in," West says. "We wanted people with familiarity with our architectural program." West told the press that the new team could legitimately usher Cardinal's design into construction since Cardinal's role in the "creative phase" had come to an end. West also pointed out that the Polshek group would work alongside the NMAI's inhouse staff and the original group of native consultants—thereby preserving as much institutional memory as possible.

Cardinal's worst fears had come true: The Smithsonian paraded his name for political benefit, then stripped him of control. "This was all Rick West maneuvering to get Jim Polshek onto the job," he says. "He lied to the public all along." (The Polshek Partnership declined to be interviewed for this article.) The Smithsonian then suffered an embarrassing setback when, in April 1999, the Commission of Fine Arts brusquely rejected Polshek's revisions of Cardinal's design. Commission chairman J. Carter Brown called it "ugly," citing in particular a cost-saving column Polshek had inserted to support a cantilever that projected 50 feet over the east entrance. "They made it clear they wanted us to return as much as possible to the original design concept," says Harry Davis, Jr., of Tobey + Davis.

As if the commission's rebuff wasn't humiliation enough for NMAI officials, Cardinal stood up during the public comment period and, clutching a beaded pipe bag, delivered a lengthy counter-presentation of the refinements he'd made under Ann Roberts' patronage-complete with model photographs and computer-generated plans-to a hushed crowd. Cardinal played no official role; he was speaking as an audience member exercising his right to comment. Nonetheless, he won the day emotionally, upstaging the normally suave Jim Polshek and humiliating the Smithsonian once again. Washington was abuzz. Ben Forgey, architecture critic of the Washington Post, summed up the mood when, in an article that appeared three days after Cardinal's performance, he scolded the Smithsonian for not allowing the architect to finish his work. "To drop an architect with so strong and personal a vision in midcourse, and yet expect to continue in the same design direction, is a recipe for messiness and mediocrity, or worse," he wrote. "If the client found it necessary to dismiss him, for whatever reason, it ought to have started afresh with somebody else's idea."

The Polshek team quietly went back to the drawing board and reworked their design to satisfy the commission's complaints. They eliminated the offending column and restored several lost elements of Cardinal's original design. The commission, in turn, approved the modifications in June 1999. *continued on page 142*



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Cardinal Rules

continued from page 141

Cardinal was never reinstated, and excavation began after the September ground-breaking.

Epilogue

Nobody has emerged from the museum saga unscathed. The midstream dismissal of architects has set back the museum's opening by as much as two years. Assuming it opens as currently planned, on the 2002 summer solstice, the project will have consumed 13 years since Congress passed the funding legislation. It has also exceeded its budget, requiring West to scout for an additional \$30 million in private donations. A rumor whispered among Smithsonian staff hinted that the Cardinal debacle cost Rick West his chance at replacing Michael Heyman when he retired as Smithsonian secretary at the end of 1999.

Finishing another architect's design is a thankless job for Polshek and his team: They have received little credit and significant approbation—an unfamiliar state for the architects of

Last September's ground-breaking should have brought sweet closure, ever vindication for Indian America.

New York City's dramatic new Rose Planetarium (*Architecture*, March 2000, page 42) and other popular institutional spaces. Worst of all, the public will undoubtedly receive a lesser work without Cardinal in place to see his project through. "Inevitably, something's going to be lost," says Richard Atherton, executive director of the Commission of Fine Arts.

Cardinal finished his drawings and returned to Ottawa with the finished building in his computer—every stone, mullion, and window dimensioned to 10-decimal-place accuracy. He estimates his loss at \$600,000, a debt that forced him to dismiss his NMAI team and close three offices. He and his wife moved in with his son. "The Smithsonian discredited me in the press to rationalize what they'd done," he says. "As a result, nobody would hire me. I was blackballed."

Last September's ground-breaking should have brought sweet closure, even vindication, for Indian America. But many of the native people in attendance, and many more following the event from afar, came to regard the museum's history as yet another chapter in the Great White Father's abuse of Native Americans. It was supposed to be a monument to healing, but it has only confirmed their wariness and mistrust of government bureaucracy.

As the NMAI excavates its site this summer, Cardinal is credited with the conceptual design on the construction fence. "I don't have time to spray paint the name off myself," he says, "but I don't want any part of it. They've tried to take away my identity as an architect just as the white man tried to deny Indians' identity. They're building a monument to the exploitation of Native Americans."

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Not-So-Pretty In Pink



Austin's Bullock Texas State History Museum is dressed to look like the neighboring State Capitol building, but **Michael Barnes** thinks the clumpy pastiche is a slap in the face of a noble tradition. An obstinate curse must hang over a few prominent blocks along Austin's Congress Avenue: The two large museums slated for the site have run into design trouble. While the city could still salvage the integrity of one, it may be stuck with a bulbous eyesore across the street.

The bulky buildings presently lining the intersection of Congress Avenue, Martin Luther King Boulevard, and Speedway are not particularly distinguished. Yet this corridor carries an enormous symbolic charge because it connects the city's most powerful institutions—the University of Texas and the state government. For decades, urban planners have thought that this intersection could be a great pedestrian funnel between the State Capitol and the UT campus, and imagined signature buildings along the path. Two promising projects were born during the late 1990s. The Blanton Museum of Art would hold the university's expanding collections, while across the street, the Bullock Texas State History Museum would act as a family-oriented theme park, complete with an IMAX theater, interactive exhibits, and artifacts borrowed from the state's smaller museums.

The sad fate of the Blanton thus far is notorious. In late 1999, the innovative Swiss firm of Herzog & de Meuron abandoned the \$60 million project, chased off by two bullheaded UT system regents (January 2000, page 13). While the university regrouped, the history museum chugged along and topped out in May, its elephantine steel girders crooked into a skeletal dome.

It's big, but it ain't pretty. Boston's E. Verner Johnson & Associates designed the \$80 million undertaking, which is expected to open in spring 2001. With its pink-to-gray granite cladding, the museum will be a glossy, frumpish souvenir version of the State Capitol. An 8,000 square-foot great hall will lead to a 34,000 square-foot permanent exhibit on three sprawling floors.

Johnson borrows clumsily from Myers' dignified arrangement of dome, arches and bays, and ends up with a bland pastiche of historical styles. His capped central cylinder will overshadow a small plaza flanked by two massive curved wings. The scheme bends and compresses the basic plan of E.E. Myers' capitol (1882–1888) into a mockery of its lineage: European palaces and churches, as well as American public structures such as the Capitol in Washington, D.C.

Unlike the Blanton selection and design process, which was conducted under the bright lights of media scrutiny, the press and public did not discover the history museum's destiny until final renderings were made available in 1999 by the State Preservation Board, the group responsible for the project. Although esteemed firms such as Polshek Partnership, Hammel Green & Abrahamson, Inc., and the Cambridge Seven Associates made the shortlist, the committee and staff chose Johnson, chiefly because "they had completed more than 100 museum projects," according to board executive director Rick Crawford.

That's too bad. Quantity is rarely a substitute for quality. And the opportunity for a great building on a critical corner seems lost forever.

Michael Barnes writes about the arts for the Austin American-Statesman *and other publications.*

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