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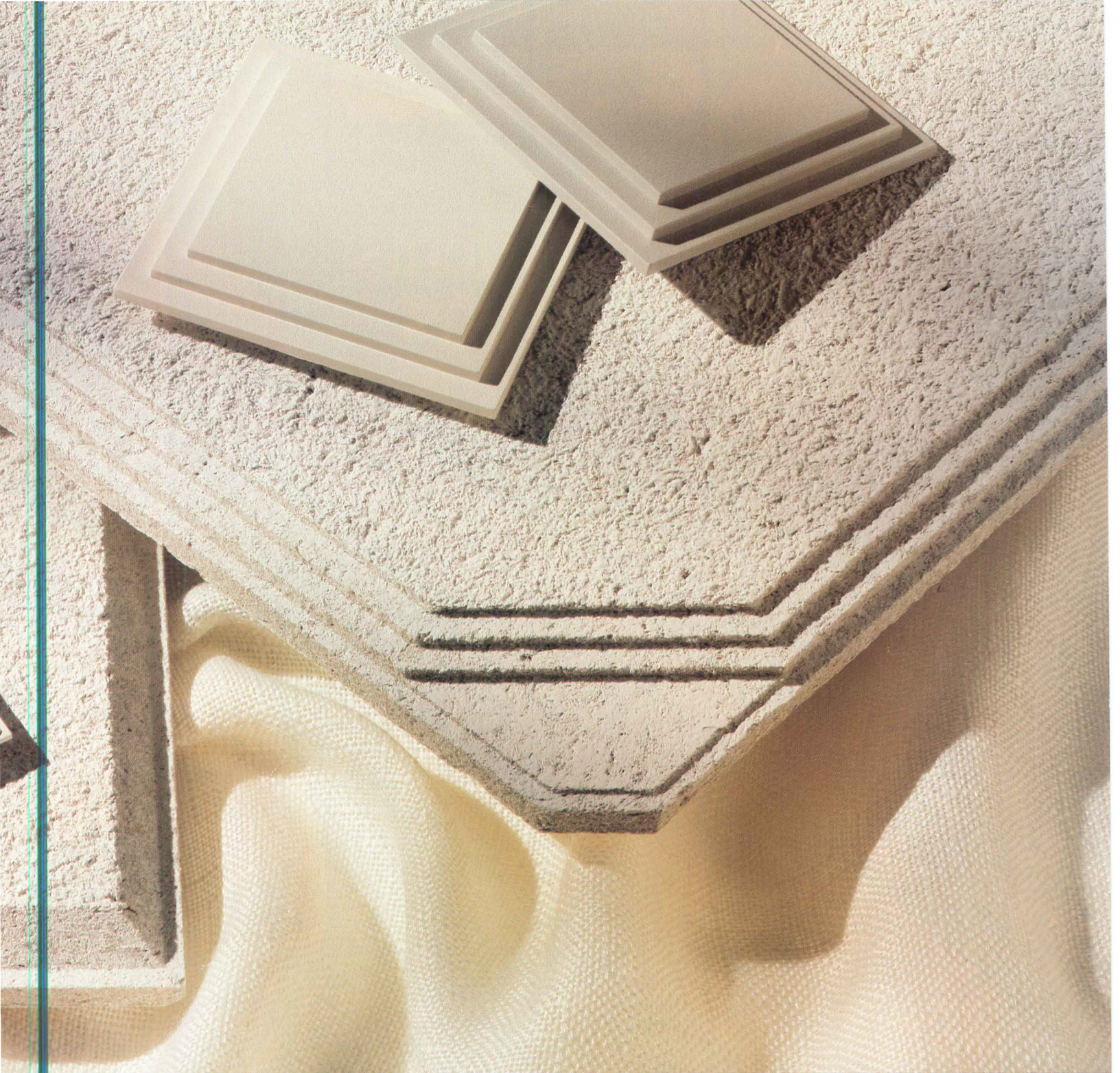




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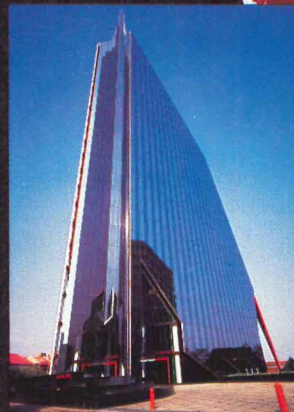
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# Editorial: Reflections on the Recession

With 16 states in or near recession and many architects barely holding on financially, it is time to reexamine the profession's vulnerability to economic downturns.

.....  
How can the profession avoid the worst effects of recessions? The answer to that question lies not in more cut-throat competition or more skillful marketing among firms. Such efforts may succeed for individual offices, but only at the expense of their colleagues. The profession as a whole, while still tied to the volatile construction industry, can reduce the effects of recession only through a fundamental change in direction – a revision of itself.

The last major recession in the mid-1970s brought a populist uprising within the profession. The declining demand for architectural services at the time was largely attributed, perhaps unfairly, to Modern architecture, which was seen as being too elitist, too unresponsive, and – most important – too unpopular with the general public. Drawing inspiration from various historical and vernacular sources, the resulting Post-Modern architecture dealt in imagery that was familiar, friendly, and flexible. It was a clear effort at winning back the public, and, given the number of flattened pediments and figural façades that subsequently appeared on buildings, it proved very popular, especially among developers, who turned it into a higher form of packaging.

But Post-Modern architecture had one serious failing. By severing any necessary connection between the image of a building and its function or structure, the Post-Modern architect was increasingly seen by many clients (and increasingly portrayed in contracts by wary lawyers) as a design consultant, responsible not for the entire building, but for its overall form and the appearance of its façades and major interior spaces. The rise of in-house architectural staffs and new types of building consultants stemmed directly from that change. Architecture, as a result, became more fashionable, but less functional, and architects, more popular, but less essential – which is a dangerous position to be in during a recession.

There are professions, such as medicine, psychology, and law, that are relatively immune to economic slowdowns. The common explanation for this is that these professions aid people in trouble. We may postpone constructing a building, but we do not wait to take care of our health or to stand up in court. It is here – in educating the public about the costs of neglect and in convincing the public that consultation can bring tangible improvements – that the architectural profession lags behind these others. The educational part is easier to address. The AIA and other professional groups should develop and maintain better data, probably in case study form, about the physical and financial costs of postponing building starts or improvements and of not seeking professional counsel for such work. (Near where I live, for example, a couple apparently thought that they could get more house for the money by dropping the architect on the later phases of the work, only to end up with an incomplete shell of a building and no more funds.) Such material should be made available to every practitioner and perhaps be the basis for an ongoing public information effort.

Convincing the public of the profession's commitment to problem-solving is another matter, given the widespread association of architecture and imagery in the last decade. There is certainly no lack of major public problems to which architects could apply themselves. The rise of homelessness, the lack of affordable housing, the poor quality of most construction, the deprivation of public space, the wastefulness of our land use and transportation system, the prevalence of indoor pollution – the list could go on. But unless the architectural profession embraces them as a priority, no amount of public relations will matter.

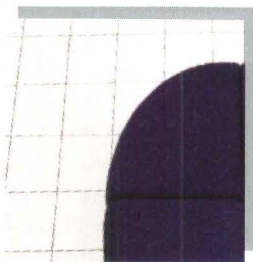
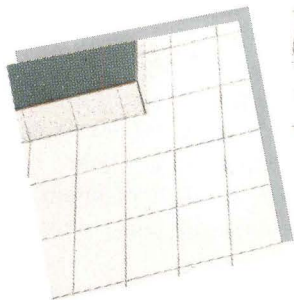
This new realism is not to devalue the internal debates within the profession over various formal or theoretical issues; every profession has its esoterica. But such concerns must be balanced with a renewed interest in and major commitment to problems of public concern, which has happened only sporadically in recent years. What is needed is a coordinated effort on the part of the profession to tackle these problems, and to be quite vocal – and visible – about it.

Not that self-interest should be the only reason to do so. Addressing major public problems, however unglamorous they might be, is not only key to surviving economic downturns; the confronting of such problems should be the very calling of a profession. The architectural profession has made this a priority in the past, most notably in the 1930s and 1960s. It is time, once again. **Thomas Fisher** ■

.....



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**Young Architects:  
Congratulations**

Just a word of congratulations to you and your fellow editors for assembling and publishing so stylistically and professionally diverse a selection of younger architects. Across the board, the level of quality is very high and the breadth of your nonjudgmental approach is absolutely appropriate.

*Robert A.M. Stern  
Robert A.M. Stern, Architects  
New York*

**Young Architects:  
Vicarious Delight**

I enjoyed your July issue on Young Architects for two reasons. I was glad to see the vitality of our young practitioners. I also enjoyed vicariously the delight of the ones featured. It reminded me of my beginnings in my native Czechoslovakia doing some pioneering work in the early 1930s, which led to an invitation by Walter Gropius to join his Masters class at Harvard. When I started working in this country full of enthusiasm, searching and innovating, I found it very encouraging and helpful to be noticed and published by various architectural magazines.

In that sense, I believe in the importance of your yearly competition in which I was honored by a Design Award some years ago. It recognizes

exploration and innovation, thus setting the compass for reaching new frontiers.

*Ladislav L. Rado, FAIA  
Armonk, New York*

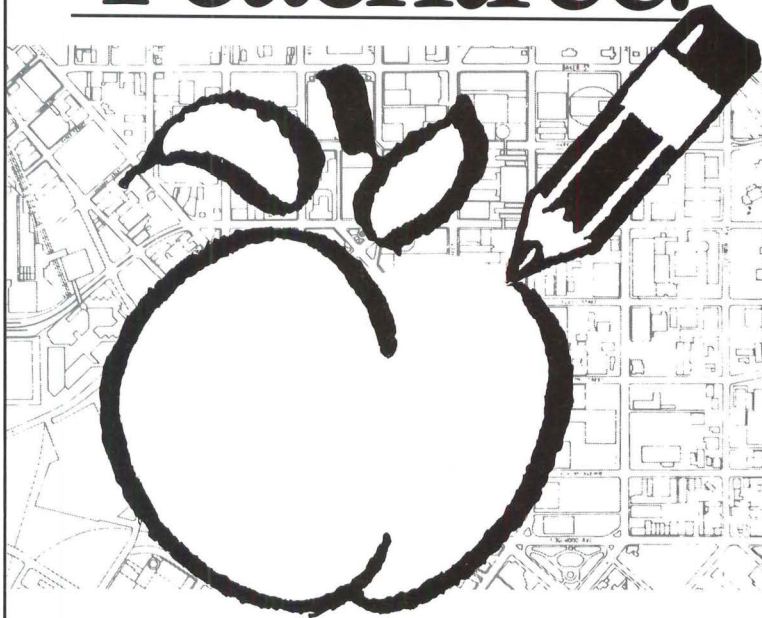
[Ladislav Rado, who practiced in partnership with Antonin Raymond from 1946 until the 1970s, was a P/A Awards juror in 1959.—Editor]

**Licensing Interior Designers**

Mr. Norman Coplan's law article in the Practice section of your July issue, (p. 49) postulates that the licensing of interior designers may jeopardize the public safety by diluting "... the sole province of architects and engineers in dealing with these matters. ..." Registered architects and engineers are granted the right to participate in issues of public safety on the basis of their training, experience, and stringent testing and are made individually liable for their actions in this regard. Why not then establish a similar basis of competency for the licensing of interior designers in lieu of, as Mr. Coplan suggests, restricting the scope of their practice to preclude such involvement.

Commercial interior designers currently deal with public safety issues in their practice and, as the development of business environments become more complex and sophisti-

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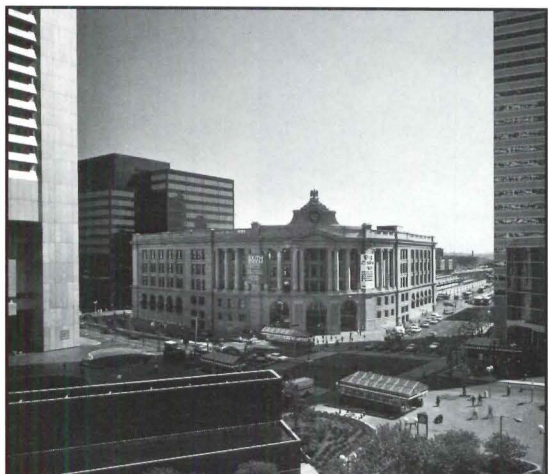
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*This photo of the restored South Station façade should have appeared in the August P/A on page 31, top. Architects for restoration of the building envelope were: The Stubbins Associates/CPF/ Domenech & Hicks.*



Steve Rosenthal



**Views** (continued from page 11)

cated, they will continue to do so. It is this increasing complexity and sophistication that mandates the establishment of a competency threshold, and licensing assures the public of the protection they are entitled to receive. Interior designers who have achieved educational standards, met experience criteria, and who have already or who can demonstrate their knowledge through testing and who are willing to accept the individual liability of their actions should

have the opportunity for licensure.

If the true concern of the architectural/engineering community is one of public safety and not merely protectionism, then they should applaud the efforts of interior designers to raise the level of professional competence and support the need for regulating it through licensing.

*Edward J. Hecht, Jr., I.B.D.  
President, Synectics, Group, Inc.  
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**The Colin Rowe Effect**

The editor of PA receives a letter from one of the top luminaries of contemporary architecture corroborating a unique stance the magazine has taken in a recent piece discussing one of the great man's works. Instead of publishing the letter, the editor trashes it. A believable scenario? Hardly!

Yet Warren James has swallowed that "unconfirmed but widely circulated" story (P/A, July 1990, p. 98) about Corbu writing the editor of *Architectural Review* to say that he

heartily agreed with Colin Rowe's analysis of one of his houses. One would have to be monumentally gullible and believe literally that the flapping of one butterfly's wings can generate a storm to buy it. If the letter exists, let us see it in print — many of us, like Rowe, read French. If not, then the appearance is that the cornerstone of Rowe's career rests on a figment.

A figment is poor footing to support James's emphatic pronouncement that the influence of Rowe's writing and teaching has been substantial. Even James's essay gives only tepid support, with his choice of words undermining even that. The picture propounded is as much pedant as pundit. He agrees that Rowe's writing is "too complicated, hard to understand," that it is "exasperating for its grammatical acrobatics," and that his teaching is "enigmatic." Who among us would consider it "the highest compliment" to be remembered as "insouciant, sardonic" or "a small participant?" On this last question, I agree with James; Rowe in his perverseness probably would.

Although James's choice of a fluttering butterfly to symbolize Rowe's influence is not without merit, I would like to propose another: the internal combustion engine. It is a quirky, many times unpleasant, machine that we tolerate reluctantly and would truly rather be rid of. It obscures our views with smoke while spewing inexplicably complex and unfathomable compounds into our air. And, unquestionably, when reproduced hundreds of millions of times, it does change our weather . . . for the worse as we have too late found out.  
*Egan Ray Gleason  
Architect/Planner  
Dallas*

[A butterfly, an engine, or what have you, Rowe's intellect has been seminal in the late 20th Century. His books are impossible.]  
(continued on page 14)

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**Views** (continued from page 12)

ble to ignore and still in print. Le Corbusier did say: "In a complete and successful work of art there is a wealth of meaning only accessible to those who have the ability to see it, in other words to those who deserve it."  
Warren A. James, *New York*

**Classicism/Modernism/Creativity**

I noted with interest your rejection of criticism in your July Editorial (p. 7). You seem to occupy the trap that has ex-

isted since the Renaissance. The academic duality, "two very different views of the world" (Are you really so sure?) produces little beyond the king's new clothing. There are a few that remain quite intentionally outside of the rhetorical Classical/Modernist debate you and your clan recognize. The fact that you cannot see these factions does not make them irrelevant or negate their existence. These are the individuals that do not comfortably

fit into the academically conservative reading of history by cause and effect, a reading that is all too often mistaken as a truth.

The individuals I speak of have been labeled as the Gothics, the Expressionists: Fuller, Gaudí, Sullivan, Wright, Soleri, Goff, individuals that prefer creativity over the referential.

The Classical and Modern debate as you present it is not only predictable, but is also tired and obsolete. Those that

continue to debate such a model for architecture apparently will be the last to see it.  
Terry Brown  
*Architect*  
*Cincinnati, Ohio*

[The whole point of the Editorial was to argue that there is an important and frequently overlooked difference between the Modern style of architecture and the idea of Modernism, with its constant search for new forms of often highly personal expression. Goff, Soleri, Wright, Sullivan: They epitomize the latter.—Editors]

**Classicism/Modernism**

The new P/A is marvelous, and your writing is superb. Thank you for that piece on the Modern versus the Classical. I have been thinking about this since the Barcelona Pavilion was rebuilt; it is Modern and picturesque, Classical and dynamic. But you gave me a new angle. More later.  
Warren A. James, *Architect*  
*New York*

**July Views Correction**

In the July Views column (p. 9), a letter from William C. Petrone, Architect, of New York contained two typographical errors. His name was misspelled, and there was an error in the third paragraph, which should have started: "As in the wilderness the question of whether this component of evolution should continue or not is a moot point."

**CAD Winner**

We inadvertently omitted a sixth winner in the AIAS/CAD-KEY Competition (P/A, June 1990, p. 140). A design for a Swansea residence by David C. MacDougall of Roger Williams College was awarded honorable mention.

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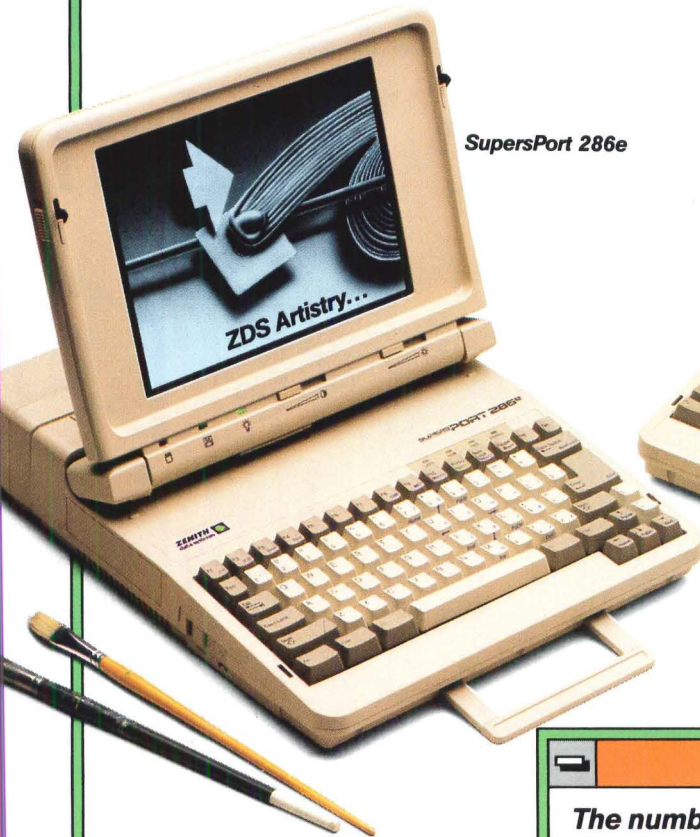


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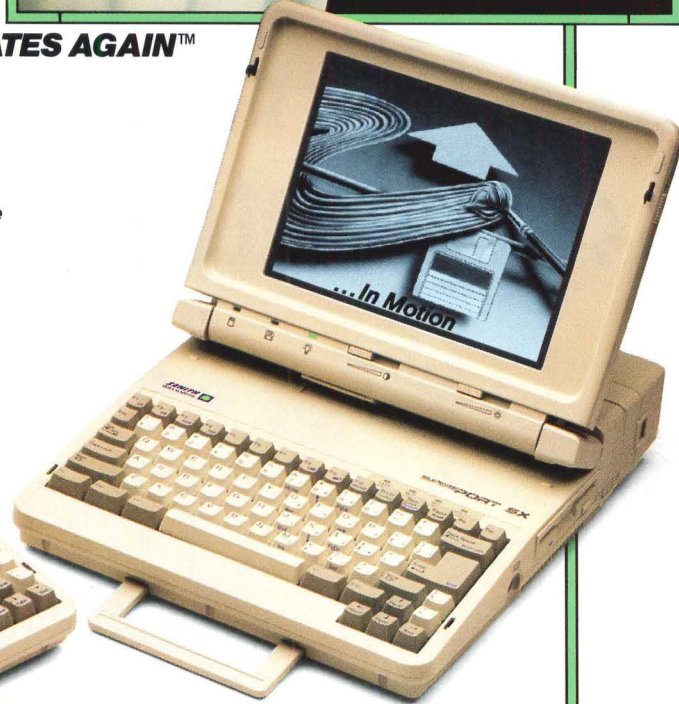


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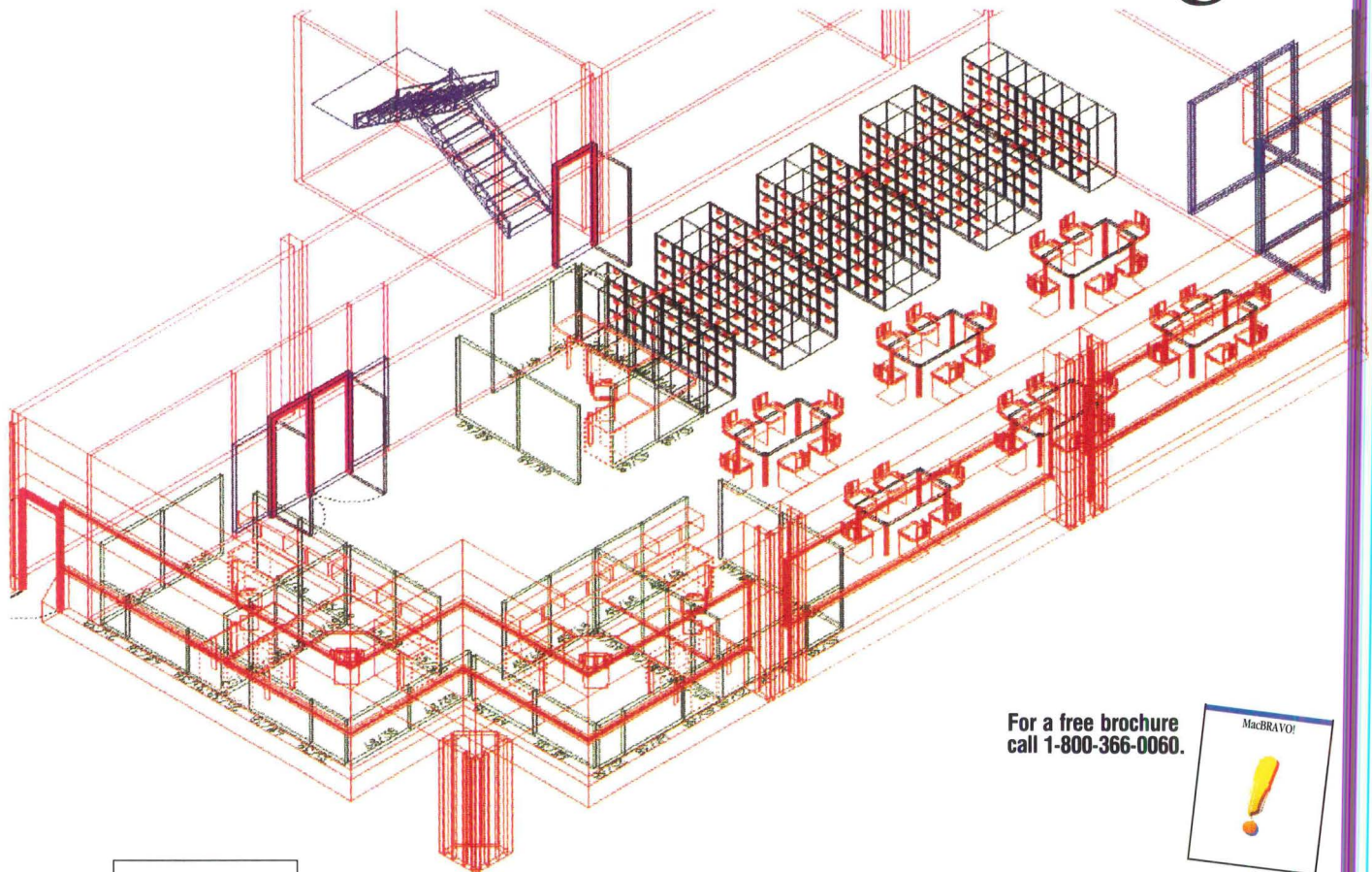
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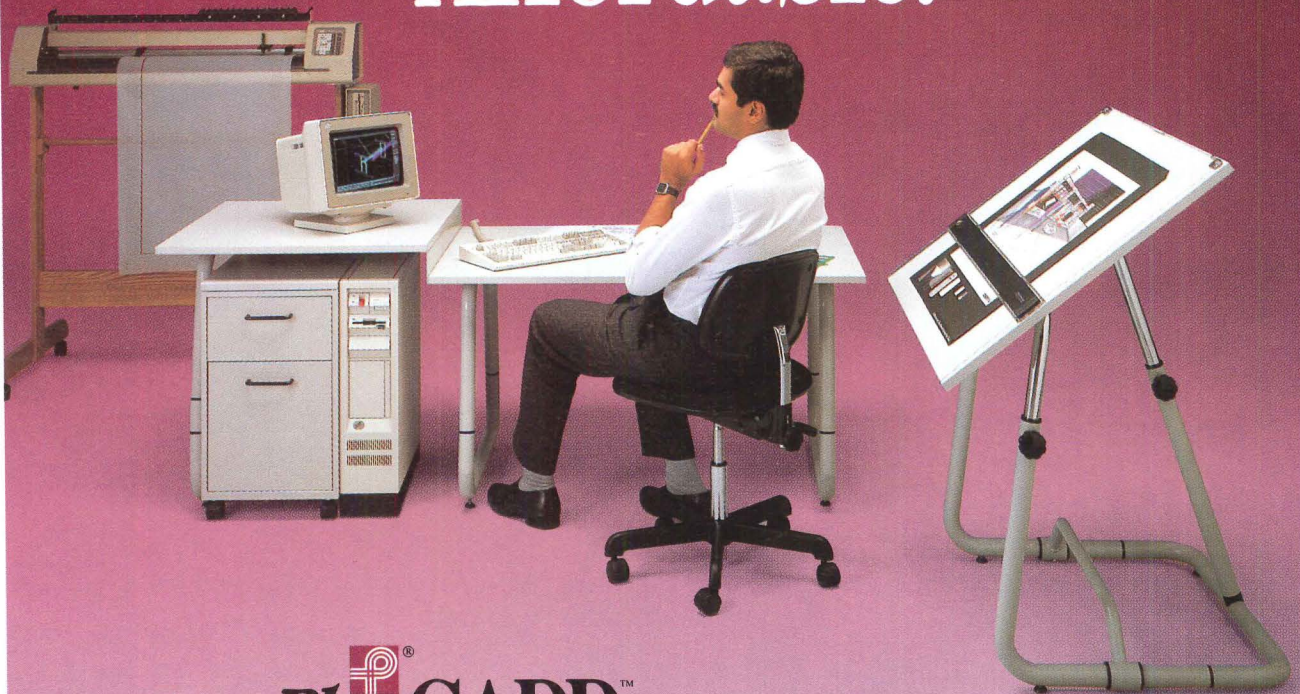




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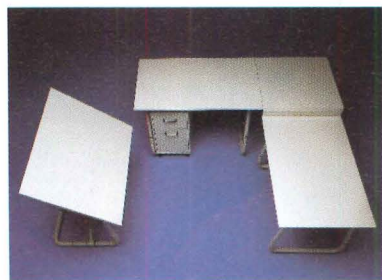
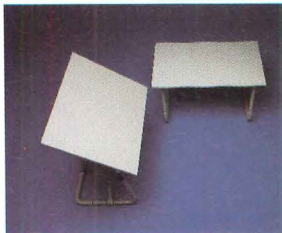
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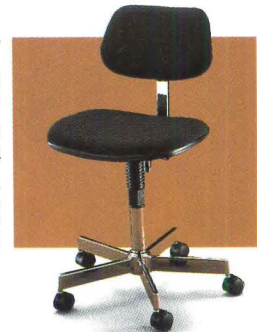
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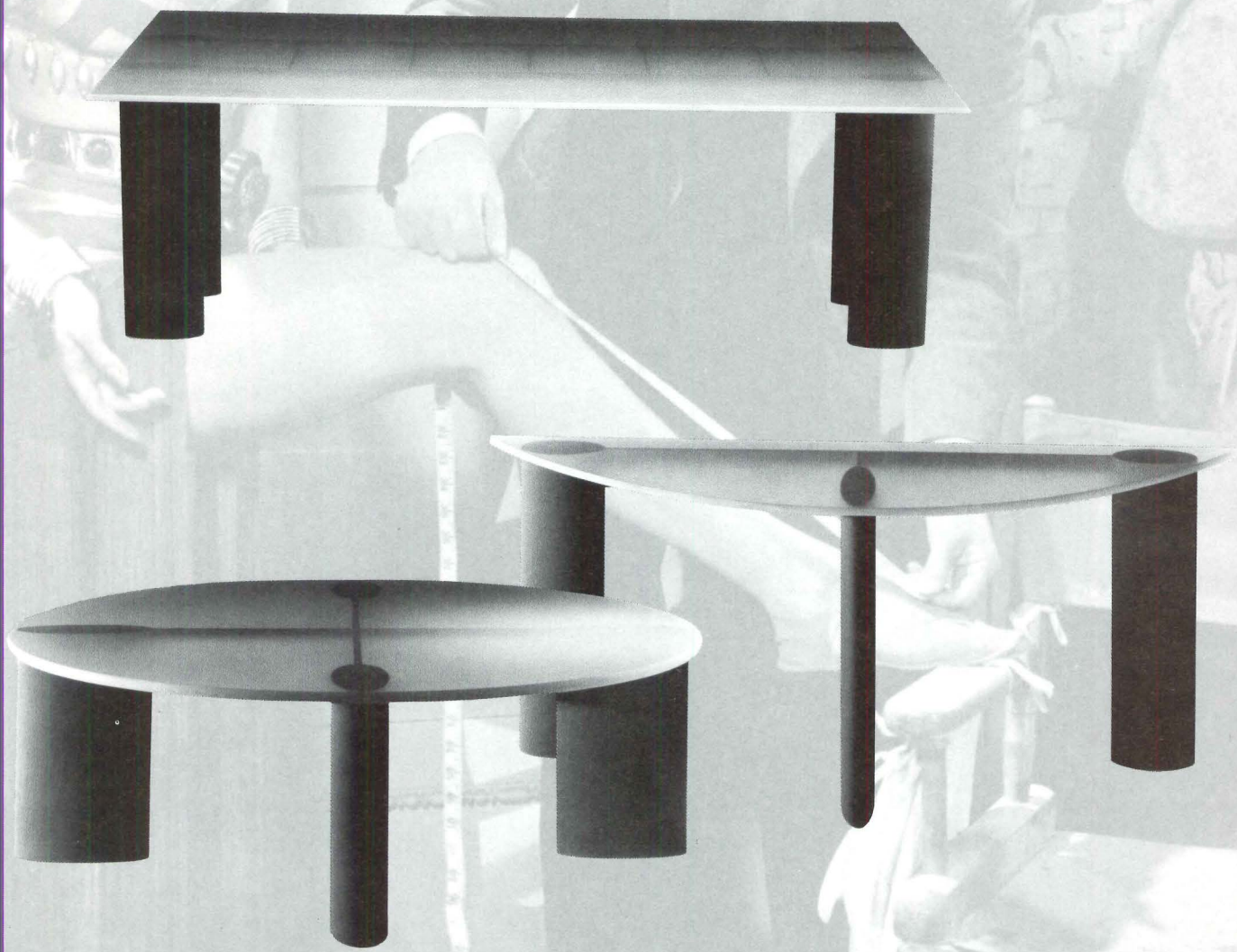


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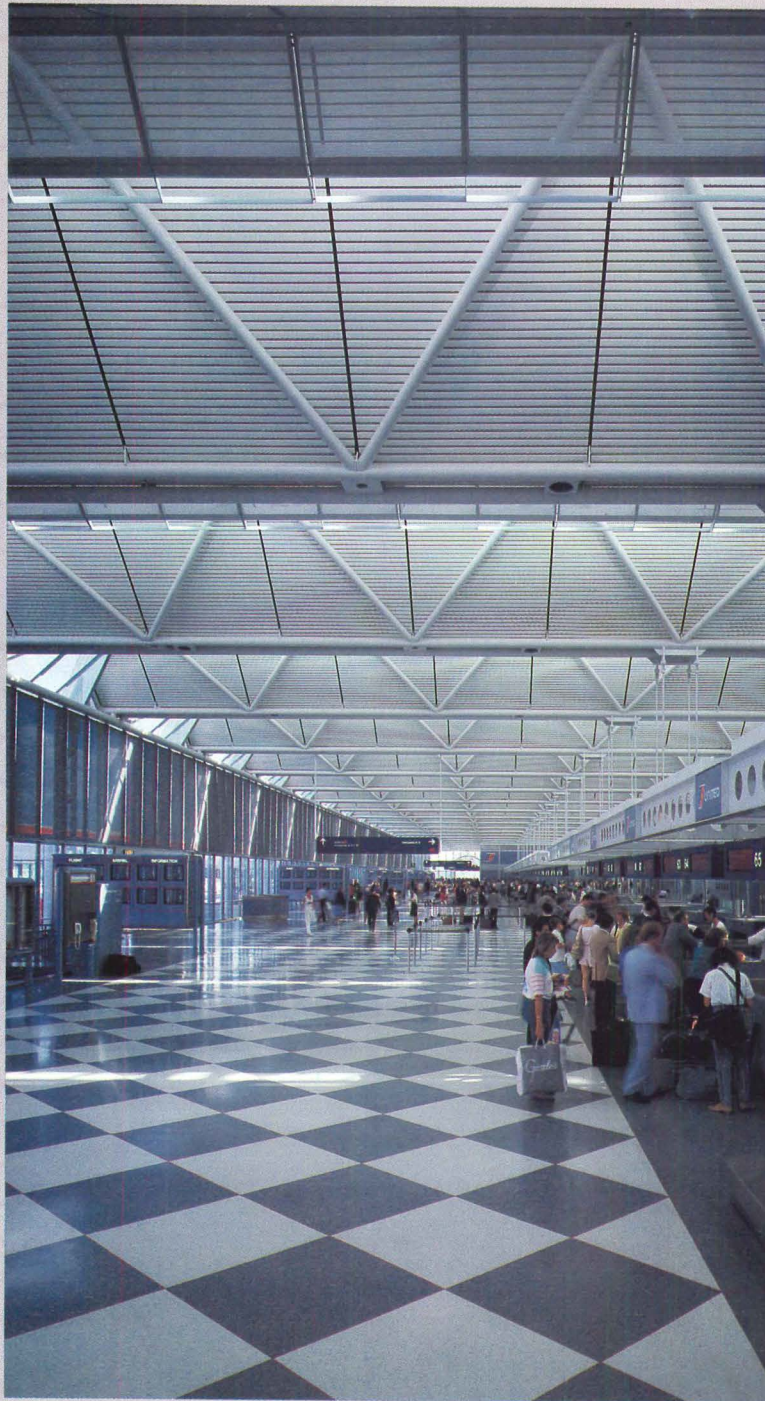
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Durston, Saylor

Franklin Institute's Futures Center by Geddes, Brecher, Qualls & Cunningham.

## "New Kid" on Philly's Franklin Parkway

Philadelphia has a new kid on the block. Tucked in behind the Neoclassical façade of the Franklin Institute, the science museum's new Futures Center is an audacious addition to Benjamin Franklin Parkway. Designed by Robert Geddes and Michael Kihn of the Philadelphia firm of Geddes, Brecher, Qualls and Cunningham, the Futures Center transforms the venerable institution to which it is appended. It features the latest in museum technology, including an Omnimax theater video lecture hall, and exhibition space with interactive computer terminals.

But it is the architecture of the Futures Center that most clearly sets it apart and distinguishes it from the original structure built in 1933 by John T. Windrim. If Windrim's formal composition celebrated the immutability and orderliness of science, the new Futures Center is a testament to its dynamism and irregularity.

The heart of the Futures Center is a public atrium that acts as the Franklin Institute's new main entrance. The Great Hall, as it is called, is an informal, centrifugal space. With its ramped circulation system and off-axis entry, it is an effective counterpoint to the coffered-dome ceiling of Memorial Hall and its figure of Ben Franklin.

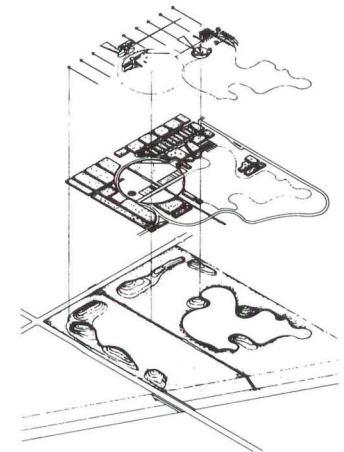
The individual elements of the atrium are somewhat less successful. A non-structural column, for example, that marks the original main information desk is decidedly less than commanding. The atrium is rescued, however, by the striking color palette: a combination of exposed, natural materials and white walls accented by painted elements in bright PrismaColor primaries.

These same colors also highlight surfaces on the building's exterior. And it is the exterior massing of the Futures Center that is perhaps its most compelling feature. The strong, opaque cylinder of the Omnimax theater and the glazed cube of the Science Park Overlook are surprisingly at home with their more staid Parkway neighbors.

It is tempting to find hints of Deconstructivism in the rotated forms, canted structures, and misaligned axes of the Futures Center. But if there is a resemblance, it is a result not of theory, but of mutual enthusiasm for the forms and compositional devices of early Modern and Constructivist architecture.

Since its inception, the Franklin Institute has emphasized hands-on exhibits where children of all ages could learn through experiment. At the new Futures Center, architecture has joined in on the fun. **Donald Prowler**

Top this! Domino's Pizza lists top architects (page 27) while P/A lists the nation's top pizza (Furthermore, page 201).



The Los Angeles Arts Park (plan above) attempts to link the landscape and fine arts in the San Fernando Valley. Projects, page 143.



Durston, Saylor

Great Hall of Futures Center with ramp rising at right.



## Pencil Points

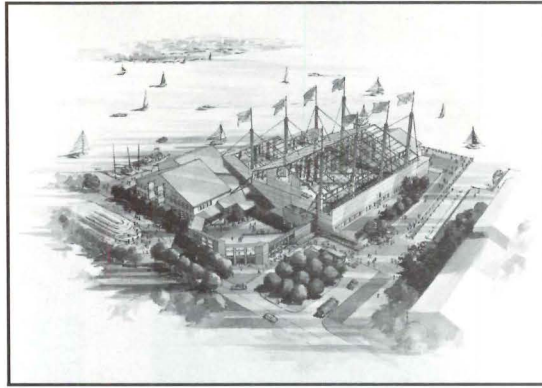
Renzo Piano has been removed as architect of the Newport Harbor Art Museum (P/A, May 1990, p. 128) in Newport Beach, California, after a reevaluation of his scheme by museum trustees. Blurock Partnership, associate architect with Piano, was also dropped from the project. In July, the museum board hired Kohn Pedersen Fox, New York, and Gruen Associates, Los Angeles. KPF's plan offers greater flexibility and more gallery space, according to museum trustee James Selna.

Aldo van Eyck has been awarded the Royal Institute of British Architects' 1990 Gold Medal for an "architectural language that is inventive, inimitable, and thought provoking."

In a small-scale exodus from Skidmore, Owings & Merrill, Los Angeles, Richard Keating, Michael Mann, Robert Jernigan, and Lauren Rottet have established their own firm in the same city: Keating Mann Jernigan Rottet. The firm will complete projects started while at SOM and undertake their own projects both in the U.S. and abroad.

The 1990 Innovations in Housing Grand Award has been won by architect Gregory Scot Hackworth, Bellevue, Washington. Sponsored by the American Plywood Association, American Wood Council, *Better Homes & Gardens*, *Builder*, and P/A, the winning project will be built in Salt Lake City.

As one of the more high-profile architectural patrons of the late 20th Century, French President Françoise Mitterrand has received a Doctor of Humane Letters honorary degree from the University of Houston. The degree was conferred during the 1990 Economic Summit of Industrialized Nations held in Houston this summer.



New aquarium (left) by Esherick, Homsey, Dodge & Davis, and its ill-fated predecessor (right) by Cambridge Seven.

### New England Aquarium to Sell, Move

The tides of architecture roll, and nowhere faster, it seems, than at Boston's waterfront, where the city's once-vanguard 21-year-old aquarium looks likely to succumb to a move downtown to a new dock and new digs. Cambridge Seven's 1969 New England Aquarium (a 1965 P/A Award winner) will come down, and its \$100-million replacement by Esherick, Homsey, Dodge & Davis of San Francisco will rise a few miles north at the Charlestown Navy Yard.

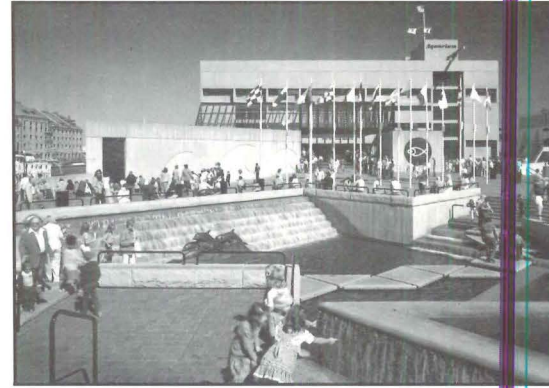
In May the new aquarium won a tentative okay from its future Charlestown neighbors, and the California designers' plans were released. The expansion of the space to 278,300 square feet will "allow the Aquarium to address the growing need to promote science literacy" through updated exhibits and expanded laboratories. Its earlier "black box" style of displaying fish as exotic and beautiful species will veer towards the newer zoo/aquarium-museum mode of showing "the diversity of marine habitats and life," staging more complete environmental groupings. It will also allow space for the staples of such institutions – cafeteria, gift shop, administrative offices.

The switch in designers and designs is an intriguing commentary on currents and cross-currents in architecture. Cambridge Seven's concrete building signified the early blooming of the city's waterfront life and marked the firm's first venture

### Chicago Architect Wins Ferriss Prize

Gilbert Gorski of Chicago has been awarded the fourth annual Hugh Ferriss Memorial Prize for rendering, sponsored by the American Society of Architectural Perspectivists and Van Nostrand Reinhold. Gorski was cited for a color pencil drawing reconstructing Trajan's Forum for an archeological study.

This year's competition drew 397 entrants, 54 of which were selected for an exhibition that will open at Boston's World Trade Center on November 14. Jurors were Boston Globe critic Robert Campbell; Jean-Paul Carlhian of Shepley, Bulfinch, Richardson & Abbott, Boston; and Lebeus Woods, director of the Research Institute of Experimental Architecture, New York.

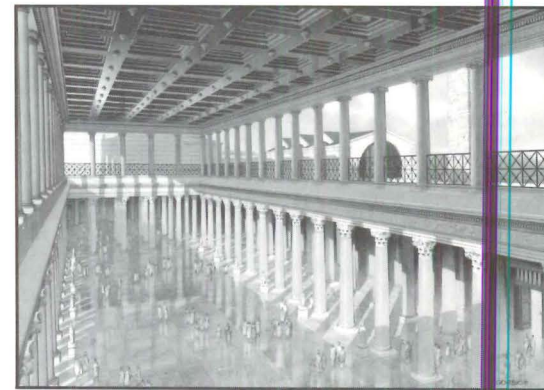


in a field it has made a specialty. The building may be a victim of the success that crowds its subterranean-looking quarters, but it remains a dramatic and attractive "underwater environment" based on a spiral ramp of exhibits circling a giant tank and backed by a neon wave.

Its exterior looks more reticent and approachable today than the inflated waterside neighbors – the Marriott Hotel and Rows Wharf – that have risen since. Its plaza has become Boston's harbor midway, an animated environment of people, food vans, and dolphin pool. Ironically, it is that liveliness that has permitted the aquarium to lure larger development and sell the site to finance the move north.

The new building, a collection of lowrise brick and glass buildings with some maritime imagery and what local planners describe as "more in the way of an industrial look," will sit on 6.6 acres of land and water on Drydock 5 at the end of the Charlestown Navy Yard. The historic Navy Yard is a vast collection of buildings ranging from tourist enclaves to housing. And, in what one planner calls "poetic justice," the California firm's remake of the aquarium will fit into a proposed master plan now underway for the Yard to draw tourists to the waterfront, the same role, ironically, that Cambridge Seven has carved out for their Osaka Aquarium nearing completion this summer.

Jane Holtz Kay



Prize-winning rendering: Gilbert Gorski's view of the Basilica Ulpia of Trajan's Forum.



### Combining Cultures in a New Zealand Museum

The competition to design the new Museum of New Zealand – a.k.a. Te Papa Tongarewa – was less about selecting a buildable design than about selecting an architect with a concept and the ability to listen. The new museum, to be built on Wellington's waterfront, is not simply to house exhibitions, but to be a living museum that celebrates the multicultural life of New Zealand. The competition was open to all architects eligible to be registered in New Zealand. Thirty-eight entries were submitted, including 16 from international firms, and after two elimination rounds JASMAX Group Ltd. of Auckland, emerged the winner.



JASMAX's competition-winning design for Museum of New Zealand.

New Zealand, a country of three million people, has a very large and distinctive minority population, the Maori, who had been living on the land some 900 years prior to the arrival of the first

Europeans. This coexistence of the two cultures is the inspiration for this museum design.

Traditionally, Maori villages are built on top of a hill, with at least one side blocked by a natural barrier, such as the sea. Central to Maori life is the "Marae," a meeting house combined with an open space. The meeting house is named after an important tribal ancestor, and its structure is symbolically his or her body. In contrast to the Maori, the life of the European settler was more urban, with city design being based on a regular grid. JASMAX's challenge was to reflect these different lifestyles while creating a cohesive design.

By combining an orthogonal plan (which precisely aligns with the surrounding urban street grid) with an actual Marae that faces the sea, these two distinct styles are successfully blended. Structurally, they are further reflected in the three-dimensional grid of beams and columns in the European Galleries. In the Marae the space is defined by a curved truss to represent a spine and create an anthropomorphic imagery. JASMAX conceived a museum that expresses cultural sensitivity and spirituality, while responding to its urban site.

But the museum emphasizes that while they have chosen JASMAX, they have not chosen their design. The firm will work with the museum to "finalize the detailed architectural brief." The current timetable should yield a museum in about seven years. **Claire Eisenstadt Belasco**

*The author, an architecture student at City College of New York, was an intern at P/A this summer.*

### Capitol Columns Stand Again

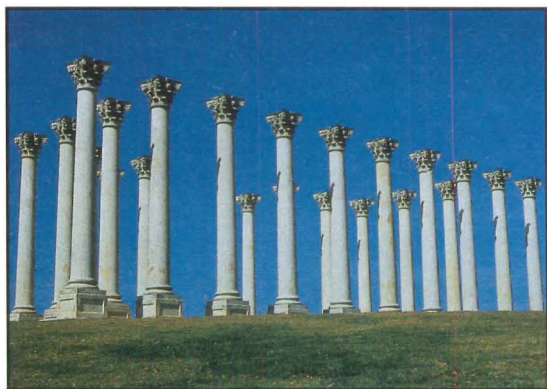
Twenty-two hand-carved sandstone Corinthian columns originally installed in 1826 in the East Portico of the United States Capitol building have been installed on a prominent site on the grounds of the U.S. National Arboretum. The columns were replaced by white marble replicas in 1958, and had been half-buried in a muddy bog on the Anacostia River ever since.

The arrangement of the freestanding columns (two short of the 24 that once existed) duplicates their layout at the Capitol. They now tower above a rectangular reflecting pool overlooking the sweep of the arboretum's 444-acre grounds.

Conceived by the late British garden designer Russell Page, the column scheme was amended and refined after Page's death by the Washington offices of landscape architects EDAW, Inc. A volunteer group spearheaded private fundraising for the \$2-million columns project.

The columns now create a striking apparition in the landscape and a memorable setting for outdoor gatherings (although one wished during the dedication ceremonies for a roof above the columns to ward off the sweltering sun). The new monument is a worthwhile stop for visitors and tourists who manage to find the little-known arboretum site on the eastern edge of the city's northeast quadrant.

Patricia Faux, EDAW's project designer, notes that the arboretum's reflecting pool is unusual for



Columns from the U.S. Capitol installed at National Arboretum.

Washington, because unlike other pools on the Capitol grounds and on the Mall, it actually captures the image of the structures above it.

The paving beneath the columns consists of marble slabs salvaged from steps that once served the Senate Wing of the Capitol. The columns themselves resulted from a definitive design by Charles Bulfinch, who worked from plans developed earlier by William Thornton and then Benjamin Henry Latrobe. But the columns are actually based on patterns in an English book from 1759, which in turn borrowed from a 16th-Century Italian book on Roman architectural orders. *La plura change...* **Thomas Vonier**

### Third Pizza Pantheon Announced

Pizza magnate Tom Monaghan has released the third version of his ever-changing "Domino's Top 30" list of architects, chosen annually by a jury of professionals. The list, which has evolved from an attempted pantheon of the world's 30 greatest architects into a roster of "distinguished North American firms known for their outstanding residential architecture or willing to accept residential commissions," must be used by prospective homebuilders in The Settlement, a Monaghan development in Ann Arbor, Michigan.

Only five of last year's 30 (P/A, Oct. 1989, p. 28) have made it to this year's list (in part because last year's included a number of Japanese and Europeans), and only Charles Gwathmey and Cesar Pelli have stayed in the top 30 for all three years.

Jurors this year were Norman Koonce of the American Architectural Foundation, Donald Meyer of the U.S. Commission of Fine Arts, and Robert Calhoun Smith of Smith & McMahon Architects, Washington, D.C. The honorees are:

- Edward Larrabee Barnes/John M.Y. Lee, New York;
- William P. Bruder Architect, New River, Arizona;
- Arne Bystrom Architect, Seattle;
- Cooper-Lecky Architects, Washington, D.C.;
- James Cutler Architect, Winslow, Washington;
- Arthur Erickson, Toronto;
- Esherick Homsey Dodge & Davis, San Francisco;
- Winthrop Faulkner & Partners, Washington, D.C.;
- Gwathmey/Siegel & Associates, New York;
- Hartman-Cox Architects, Washington, D.C.;
- Hisaka & Associates, Cambridge, Massachusetts;
- Holly & Smith Architects, Hammond, Louisiana;
- Hugh Newell Jacobsen, Washington, D.C.;
- Norman Jaffe, Bridgehampton, New York;
- Fay Jones/Maurice Jennings, Fayetteville, Arkansas;
- Keating Mann Jernigan Rotter, Los Angeles;

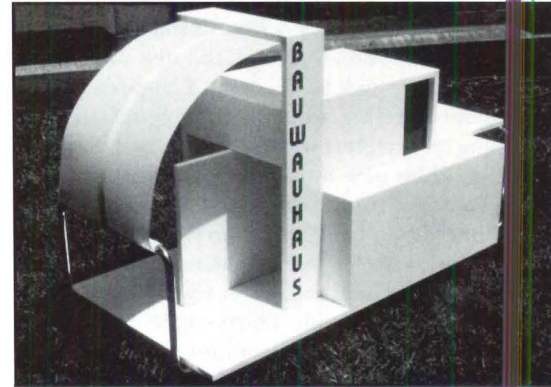
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### Third Pizza Pantheon Announced *continued*

- Kohn Pedersen Fox Associates, New York;
- Ricardo Legorreta, Mexico City;
- Mockbee-Coker-Howorth, Jackson, Mississippi;
- Charles Moore, Austin, Texas;
- Murphy/Jahn, Chicago;
- Cesar Pelli & Associates, New Haven, Connecticut;
- Antoine Predock Architect, Albuquerque, New Mexico;
- Moshe Safdie & Associates, Somerville, Massachusetts;
- Shepley Bulfinch Richardson & Abbott, Boston;
- Shope Reno Wharton Associates, Greenwich, Connecticut;
- Robert A.M. Stern Architects, New York;
- Thompson Ventulett Stainback & Associates, Atlanta;
- William Turnbull Associates, San Francisco;
- Weinstein Associates, Washington, D.C.

To date, the list has led to three commissions at The Settlement: a house by Mockbee-Coker-Howorth, Monaghan's own house by Fay Jones & Maurice Jennings, and a recreational building by Hardy Holzman Pfeiffer Associates. Other Domino's-driven commissions underway include another phase of the company's headquarters by Gunnar Birkerts, the Ann Arbor Marriott remodeling by Charles Moore, and the Saw Mill Center Complex at Drummond's Island, also by Moore. ■



Entries in the Cooper-Hewitt Museum's "Doghouse" exhibition by Smart Design (left) and Ted Trussell Porter (right)

### Dual-Purpose Doghouses at Cooper-Hewitt

As an expression of front-porch-sitting-frisbee-throwing life, "The Doghouse" exhibition at the Cooper-Hewitt Museum in New York, on view until October 14, provides a bit of escapism amidst the rough-and-ready environment of the city. But the 24 architect-and-designer-generated doghouses serve a second purpose: They are an experiment in museum access for the blind and visually impaired.

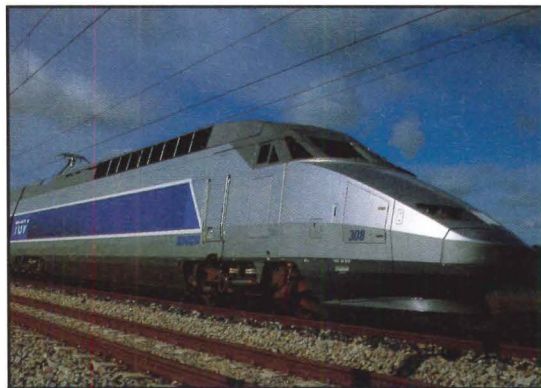
While the connection between doghouses and guiding eye dogs is slim (guide dogs sleep near their companions, not in doghouses), the building type gave participants stylistic free rein and subsequently offered visitors a subject instilled with tactile qualities. The latter was among criteria listed in a set of design requirements – on dimensions, ventilation, climatic variations, and maintenance – distributed by the museum. A competition was held and a review committee – design writer Ralph Caplan, architectural critic Joseph Giovannini, and architect Graham Gund – chose 24 schemes to be realized.

The doghouses were positioned around the perimeter of the museum's 5000-square-foot gar-

den along an existing concrete path, providing a continuous loop for visitors to follow. Triangular information boards placed on waist-high poles in front of each doghouse have large-size type descriptions on one side and Braille descriptions on the other.

Although many entries took the challenge of sight-impaired visitors to heart, others merely reveled in dog metaphor, pun, and word-play: Smart Design's entry, for example, retrofitted an old television console for use by a dog. As for recognizable form, the set's decorative woodwork and large screen are easily identifiable to the touch. In a similar attempt to use pre-existing component(s), Ted Trussell Porter of Ryall Bishop Porter Architects, New York, turned a Marcel Breuer table upside down and used it as a base for his Corian, plastic, and metal "Bauwauhaus."

The exhibition, cosponsored by Guiding Eyes for the Blind in honor of its 35th anniversary, liberates the museum experience from one solely for the sighted to one accessible and experiential for all. The doghouses will be auctioned off next spring to raise money for renovations to Guiding Eyes' own kennel building. **Abby Bussel** ■



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### Coordinated Design Effort for New French Trains

In the heady days of steam locomotion, technology, industry, and architecture merged to produce the soaring iron-and-glass sheds of the 19th-Century European train stations. Now an exciting new project for surface travel in Western Europe is spawning great industrial design and architec-

ture once again. All of United Europe will soon be connected by high-speed, frequent, dependable, luxurious passenger service, linking the major center cities, over thousand-mile runs and more. The continent's latest system is France's Train à Grande Vitesse (TGV) Atlantique, inaugurated in September 1989. Its network of trains, infrastructure, and stations has been created through a joint venture by the government bureaucracy SNCF (French National Trains), design firm ADSA, and Industrial Group Alstom, builder of the trains. TGV-Atlantique is an integrated set of industrially designed constructions, where art and physical necessity fuse to form a greater whole.

The TGV-Atlantique train is a sleek, blue-streaked, silver snake, silently zipping through the French countryside, leaving a shock wave in its wake. The end cars have tapered smooth noses with no markings but brow-level windows and a dark gray mechanical crest. Each train has a traction-unit at each end, and ten cars in-between

(continued on page 30)



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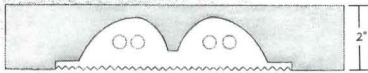
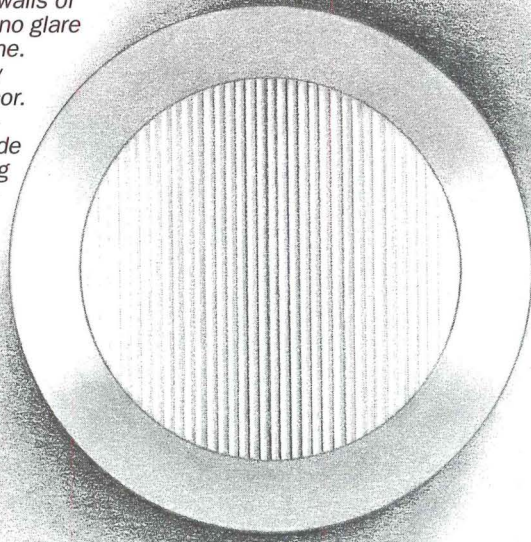
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Platform shelters at TGV's Le Mans station.

### Trains (continued from page 28)

accommodating 485 people. Two trains can be hooked together to carry almost a thousand people at a time. ADSA's Francois Lacôte, engineer, and Roger Tallon, designer (Tallon, known as "Monsieur Train," designed the Mexico City subway in the 1960s), have synthesized the outer forms and graphics of the new train with truly original interiors.

The stations and rail grid were created within the SNCF Architecture Division, headed by engineer and architect Jean-Marie Duthilleul. The forms, techniques, and materials of the stations, as well as of the infrastructure walls, viaducts, overpasses, high-tension pylons, and signals, echo the designs of the trains, while incorporating the latest textile, alloys, and structural techniques.

Major architectural motifs, providing a sense of transparency, are translucent fabric suspension structures for roofs, and great unframed vertical glass panels, wind-braced by light steel trusses and cables. Throughout, strong lapis-lazuli blue is the predominant accent color, tempered by white and the pale grays of metal and concrete. These colors, tension cables, stainless-steel fittings, and catenary and luminous sail structures also have a romantic association with ships and the Atlantic.

The airy new train stations are at Nantes (1989), with its cathedral-like fabric vaulting, and Rennes (to open in 1991). White fabric suspension shelters undulate along the tracks at Le Mans and Brest stations. At Paris a Herculean overhaul-expansion of the hideous 1960s Gare de Montparnasse features a vast concrete slab (with parking, park, and office buildings above), supported over the tracks by huge concrete Vierendeel trusses and cambered post-tensioned arches. All rest on concrete columns of a scale (and shape) reminiscent of Karnak or Luxor.

These stations are not just celebrations of technology, but dignifying places to experience the emotions of parting and arrival. From the moment travelers approach a TGV station until they part from another at journey's end, they are in a controlled, impeccably designed environment.

**Barbara Shortt**

The author is a New York architect who writes frequently on French architecture.





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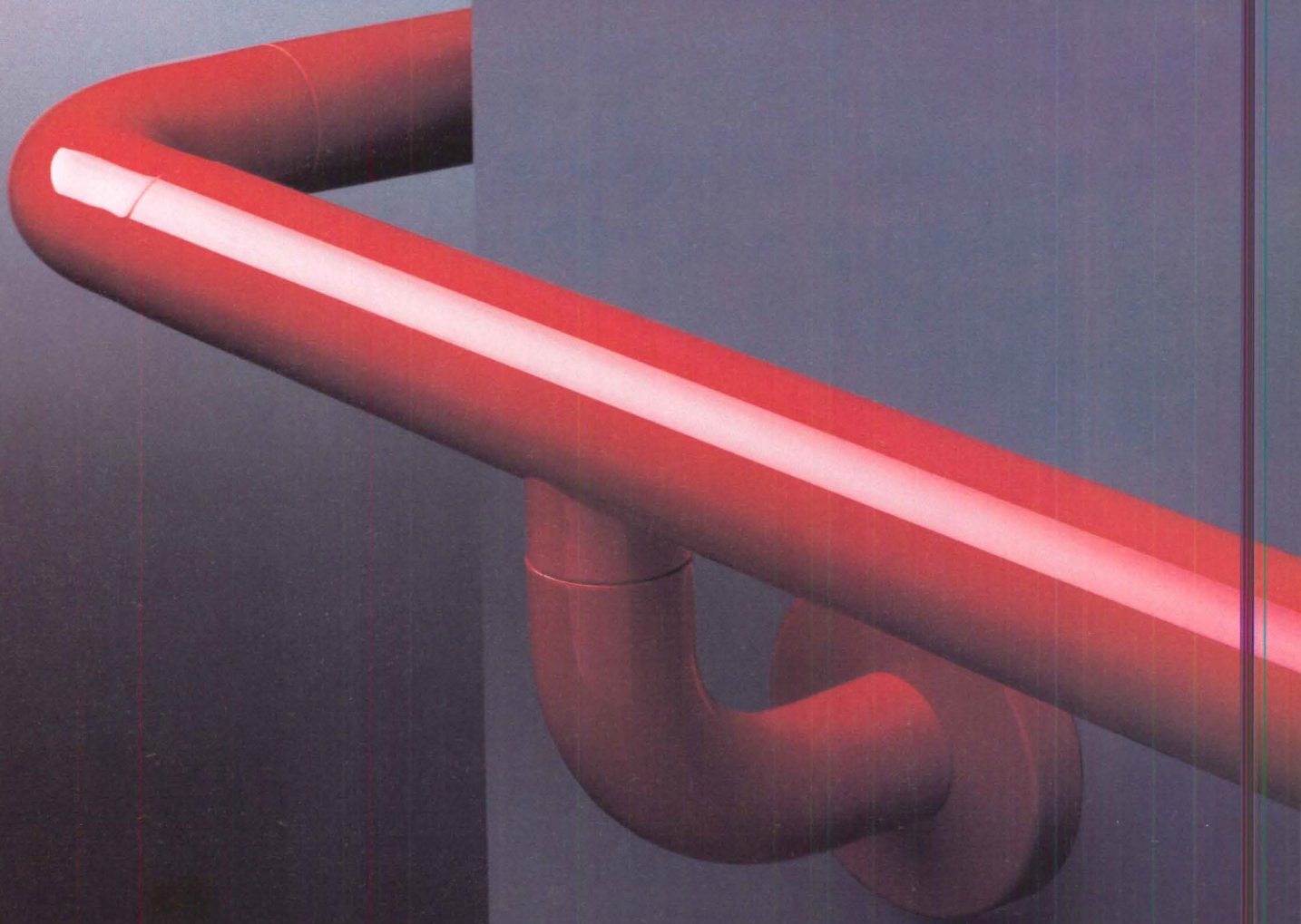
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# Calendar

**The Doghouse**  
through October 14

**Forging a Metropolis**  
through October 19

**The Chicago Skyscraper**  
through December 31

**Robert Williams/Billie Tsien**  
September 8-November 3

**Emerging Japanese Architects**  
September 14-November 3

**Izidor Malevich**  
September 16-November 4

**USA/USSR**  
September 17-October 12

**Bridging the Gaps**  
September 18-October 31

**Architects' Education**  
September 19-November 3

## Exhibition

**New York.** The Cooper-Hewitt, in collaboration with Guiding Eyes for the Blind, invited architects and designers to submit proposals for doghouse designs for exhibition in the museum's garden; 24 realized schemes are on display. Braille labels, large-type signage and brochures, and specially designed paths are provided to make the show accessible to sight-impaired visitors. (See page 28). Cooper-Hewitt.

**New York.** "Forging A Metropolis: Architecture of Lower Manhattan" attempts to fill a tall order in its focus on the architectural evolution of Lower Manhattan. A free 80-page book published in conjunction with the exhibition includes two self-guided walking tours of the area. Whitney Museum, Federal Reserve Plaza.

**Chicago.** On show is a selection from the Art Institute's permanent collection of drawings and models of Chicago's wealth of iconoclastic skyscrapers - from Burnham & Root's Rookery Building to Murphy/Jahn's Northwestern Terminal tower. The Art Institute.

**Cleveland.** The architects use the "Architecture Tomorrow" exhibition (P/A, May 1990, p. 119) as a laboratory for "practical and visionary propositions regarding the utilitarian, interpretive, and constructive possibilities of the home." Full-scale building components have been assembled and public interaction encouraged. The exhibition originated at the Walker Art Center. Cleveland Center for Contemporary Art.

**New York.** "Emerging Japanese Architects of the 1990s" is an exhibition of work by six firms led by "fourth generation" architects. Columbia University, Schermerhorn Hall, Wallach Art Gallery.

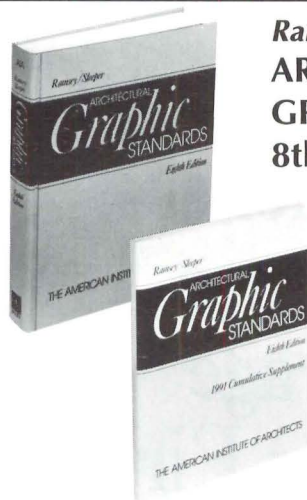
**Washington, D.C.** As advocate of an eclectic array of early 20th Century Russian avant-garde "isms", Malevich produced a body of work that neatly encapsulates the era. This traveling exhibition will include architectural models, paintings, and works on paper. National Gallery.

**San Francisco.** "The Socially Responsible Environment, USA/USSR, 1980-1990" (P/A, July 1990, p. 22) jointly presented by the USSR's Union of Architects and Architects/Designers/Planners for Social Responsibility in the United States, is a traveling exhibition of 33 jury-chosen "socially conscious" architectural and urban planning solutions. San Francisco Mart.

**New York.** Proposals submitted in a design competition for a pedestrian connection to link Manhattan's civic sector (around Foley Square), with its downtown commercial sector (around Nassau Street), will be on view. A symposium on public space and pedestrian access will be held on September 12. Columbia's School of Architecture and the Building Arts Forum/New York are cosponsors. Columbia University, Avery Hall.

**New York.** Gwendolyn Wright and Janet Parks are curators of "History of History In American Schools of Architecture, 1865-1975" - an unusual investigation into how "students have been taught history - and how they in turn have (continued on page 34)

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**Calendar** (continued from page 33)

interpreted both historic buildings and the process of change." Arthur Ross Architecture Gallery, Buell Hall, Columbia University.

**Bradbury Thompson**  
September 25-October 2

**Los Angeles.** Seminal works by Bradbury Thompson – one of the first generation of American-born graphic designers to profoundly influence the profession in this country – are to be exhibited. A redesign of P/A in the early 1970s is among his many credits. Pacific Design Center.

**Competitions**

**American Wood Council Awards**  
Submission deadline  
September 15

**Washington, D.C.** The American Wood Council has announced its 1990 Wood Design Awards Program. Residential and nonresidential, new and remodeled buildings with "a dominant wood character," and completed since January 1987 are eligible. Contact American Wood Council, 1250 Connecticut Avenue, Washington, D.C. 20036 (202) 833-1595.

**Concrete Building Awards**  
Entry deadline September 28

**Skokie, Illinois.** All types of new or remodeled concrete buildings – cast-in-place, concrete masonry, and precast concrete – may be entered in the 1990 Concrete Building Awards program sponsored by the Portland Cement Association. Buildings in the U.S., Canada, and Mexico, completed between September 1988 and September 1990, are eligible. Contact Glen Simon, PCA, 5420 Old Orchard Road, Skokie, Ill. 60077 (708) 966-6200 or FAX (708) 966-8389.

**City of Samarkand, USSR**  
Registration deadline  
September 30

**Samarkand, USSR.** An international ideas competition has been launched by the City of Samarkand (located in the Soviet Republic of Uzbek) "for the Ulugh Beg Cultural Centre and the revitalization of the city's historical core." The USSR Union of Architects, The Aga Khan Trust for Culture, and the Uzbek SSR Union of Architects are sponsors. Contact Samarkand Competition Secretariat, 32, Chemin des Coets-de-Pregny, 1218 Grand-Saconnex, Geneva, Switzerland (22) 798 9070 or FAX (22) 798 9391.

**Atlanta's Peachtree Street**  
Registration deadline  
October 31

**Atlanta, Georgia.** A two-stage international design competition, sponsored by the City of Atlanta and Central Atlanta Progress, Inc., calls for design proposals for Peachtree Street, the main business artery in the city. Architects, landscape architects, urban designers, planners, engineers, and related designers are eligible. Contact Peachtree Street Design Competition, c/o Central Atlanta Progress, Inc., Grand Lobby, The Hurt Building, 50 Hurt Plaza, Atlanta 30303 (404) 658-1877.

**Osaka Design Competition**  
Registration deadline  
October 31

**Osaka, Japan.** With "Terra" as its theme, the two stage biennial international design competition, sponsored by the Japan Design Foundation, invites entrants to consider our most precious source: earth. "It is time to review our concept of terra and realize its importance, and to discuss a new direction to utilize the earth." Contact Secretariat, 5th International Design Competition, Japan Design Foundation, 3-1-800, Umeda 1-chome, Kita-ku, Osaka 538, Japan 81 6 346-2611 or FAX 81 6 346-2615.

**Visual AIDS**  
Entry deadline November 1

**New York.** Architects, designers, and artists are invited to propose a work of art related to AID for a public site in New York. A public plaza, corporate lobby, billboard, newspaper, or public service announcement are among possible "sites." The Public Art Fund will select one entry and commission a public work in spring 1991. Proposals will be exhibited at several locations around the city. Contact Visual AIDS, 108 Leonard Street, 13th Floor, New York, New York 10013 (212) 513-0303.

(continued on page 36)



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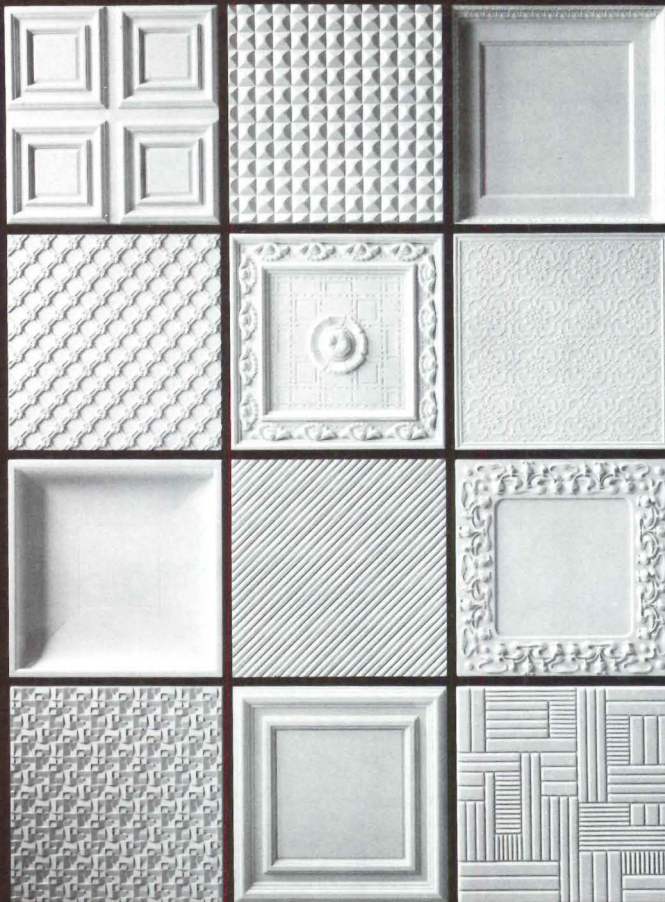
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**Calendar** (continued from page 34)

**Rudy Bruner Award**  
Application deadline  
November 30

**New York.** The Rudy Bruner Award of Excellence in the Urban Environment "honors the urban place that most successfully reconciles the aesthetic, economic, and social values which struggle for equilibrium in today's development process." Anyone involved in the planning, development, or operation of a project can initiate an application. Contact Rudy Bruner Award for Excellence in the Urban Environment, 244 Fifth Avenue, New York, New York 10001 (212) 889-5366.

**Conferences**

**Pedestrian Conference**  
October 3-6

**Boulder, Colorado, and Bellevue, Washington.** A joint pedestrian conference held simultaneously in Boulder and Bellevue (linked by teleconferencing) will use each site as a "living laboratory" to address issues currently facing the pedestrian. Themes are "The Road Less Traveled: Getting There By Other Means" (Boulder) and "Designing the Urban Village: The New Pedestrian Paradigm" (Bellevue). Contact Pedestrian Conference Coordinator at Alternative Transportation Center, P.O. Box 791, Boulder, Colorado 80301 (303) 441-4260 or at City of Bellevue, P.O. Box 90012, Bellevue, Washington 98009 (206) 455-6868.

**Traditional Environments**  
October 4-7

**Berkeley, California.** "First World-Third World: Duality and Coincidence in Traditional Dwellings and Settlements" is the second annual conference of the International Association for the Study of Traditional Environments; papers will be read and panel discussions held. Contact IASTE Conference, Center for Environmental Design Research, University of California, Berkeley, California 94720 (415) 642-2896.

**Designer's Saturday**  
October 11-13

**New York.** This year's market has been given international emphasis with two seminar programs - at IDCNY in Long Island City ("Crosscurrents") and the A&D Building in Manhattan ("The Globalization of Design"). Product introductions and presentations will take place at several locations throughout the city. (See page 164.) Contact IDCNY, Executive Offices, 29-10 Thomson Avenue, Long Island City, New York 11101 (718) 937-7474 or A&D Building, 150 East 58th Street, New York 10015 (212) 644-6555.

**Waterfront Center Conference**  
October 11-13

**Washington, D.C.** Forty exhibits, "shirt sleeve" sessions, and announcement of the annual Excellence on the Waterfront project award winners are among the scheduled events at the eighth annual Waterfront Center conference on urban waterfront planning, developments and culture. Contact Waterfront Center, 1536 14th Street, N.W., Washington, D.C. 20007 (202) 337-0356.

**Arts & Crafts Movement**  
October 18-20

**Winterthur, Delaware.** "The Substance of Style: New Perspectives on the American Arts & Crafts Movement" will explore issues relating to the revival of "craftsmanship and cultural reform" in the late 19th Century. Contact Pat Elliot, Advanced Studies Division, Winterthur, Delaware 19735 (302) 888-4649.

**International Architecture**  
October 27-November 4

**Paris.** The 1990 S.I.A. architectural conference will concentrate on housing. An exhibition of work by young architects, roundtables, conferences on "leading architects," screening of architectural films, and workshops for children to model a "dream house" are among scheduled activities. Contact BL Associés s.a., Jean Jacques Bravo et Jacques Lichnerowicz, 77, rue du Cardinal Lemoine, 75005 Paris, France tel. 33 46330562 or FAX 33 46339901.



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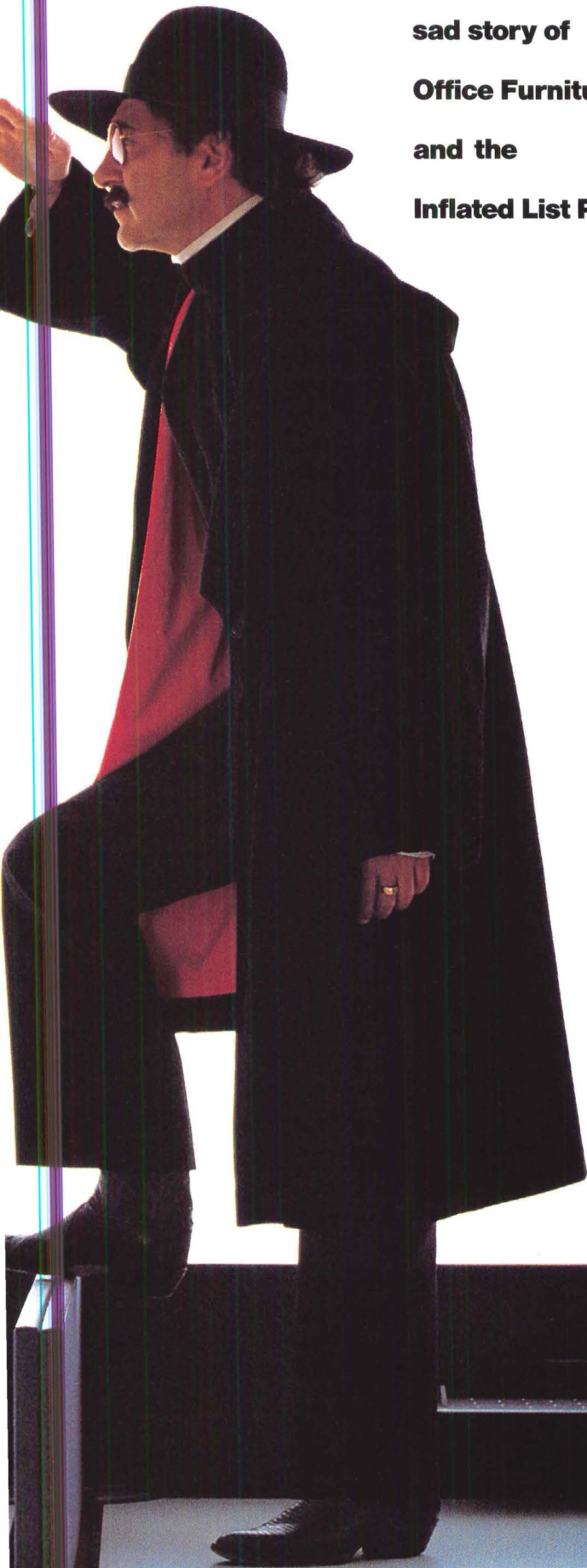
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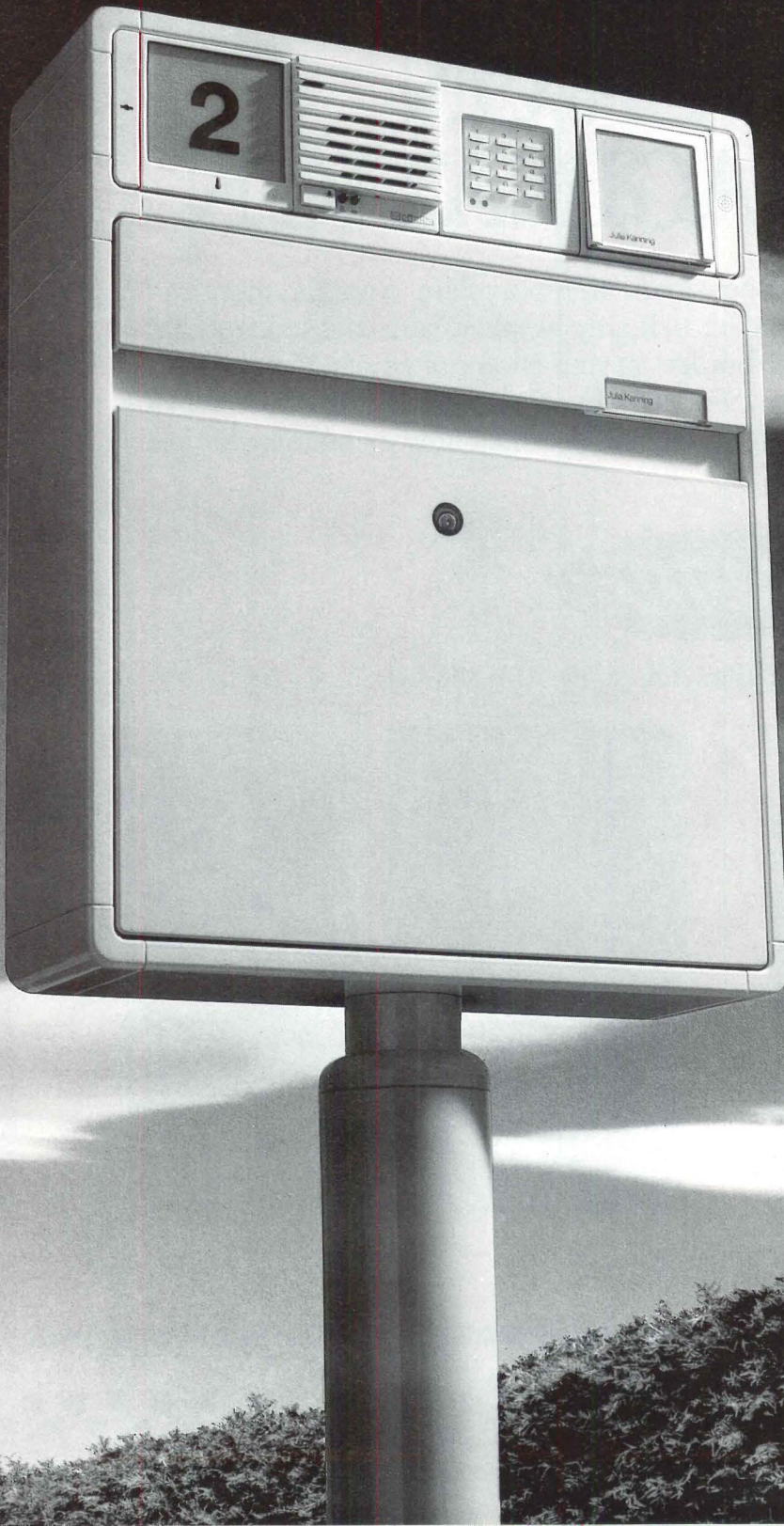
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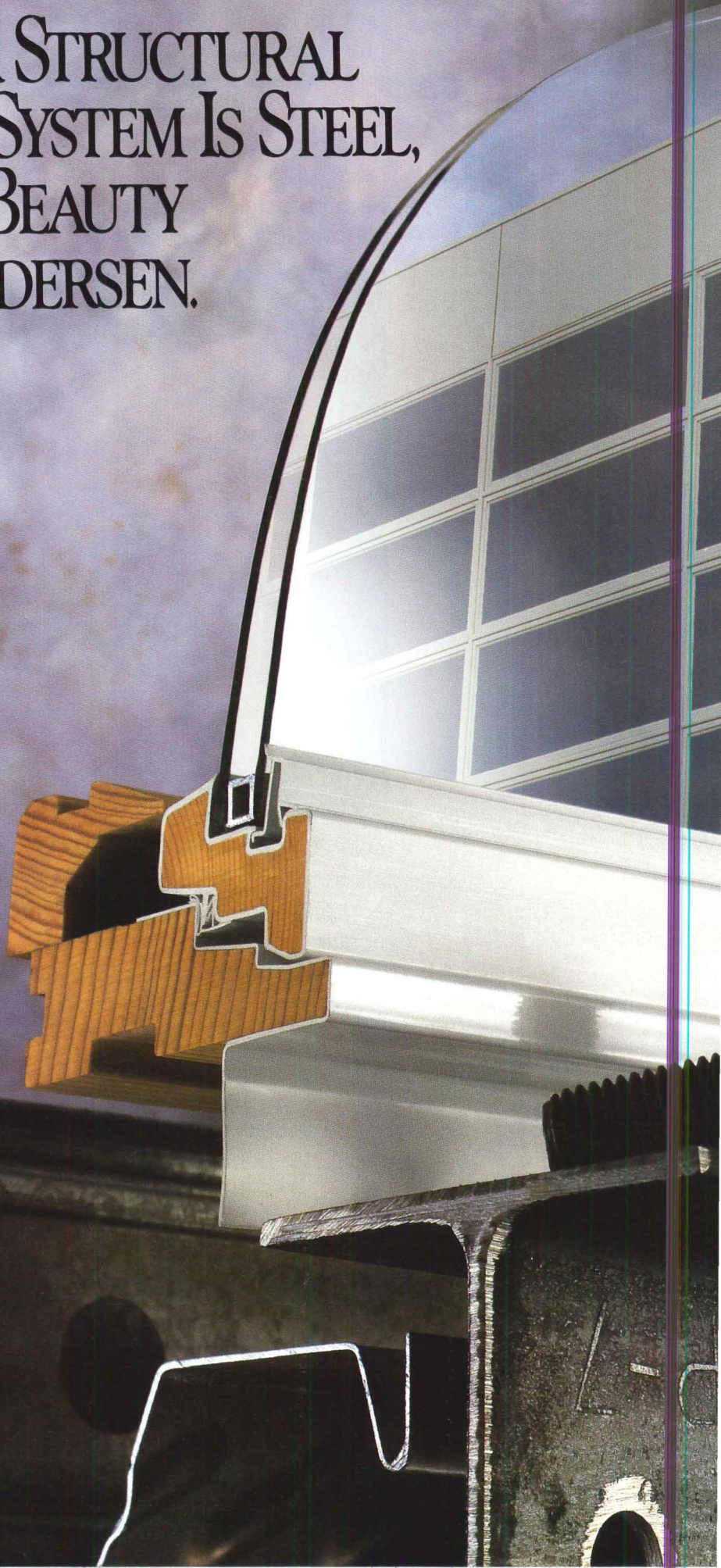
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# The Intelligent Office

Vivian Loftness, Volker Hartkopf, and Peter A.D. Mill

of Carnegie Mellon University's Center for Building Performance and Diagnostics summarize

the international findings of the Advanced Building Systems Integration Consortium.

The intelligent office building traditionally has been defined by a long list of new products in telecommunications, electronics, security, automation, and building control systems. Although the United States has been a leader in the development and packaging of high-tech products and images, the buildings to house these technologies have not advanced significantly. Indeed, after 10 years of use, the original definition of the intelligent building has proven insufficient, given the high-tech work environments anticipated by building owners and building occupants.

A better definition would be: Intelligent office buildings provide for unique and changing assemblies of recent technologies in appropriate physical, environmental, and organizational settings, to enhance worker speed, understanding, communication, and overall productivity<sup>1</sup>. Three critical conditions must be met to fit this definition.

First, the intelligent office building must accommodate a compatible package of recent technologies, resolving the full range of hardware for managing external signal propagation; external power; telephone systems; internal signal propagation; computers (capacity, speed, and networking); peripheral "in-putters," processors, and "out-putters"; environmental management systems; personnel management systems; building management systems, including diagnostics and maintenance automation; and command centers. A comprehensive file of intelligent building products is compiled and continuously updated by the Intelligent Buildings Institute in Washington D.C.<sup>2</sup>

Second, the intelligent office building must provide appropriate physical and environmental settings for this hardware. This involves structure; enclosure — walls, windows, roofs, and basement; building geometry, including massing, orientation, horizontal and vertical plenum space, and overall spatial organization; major conditioning services such as heating, ventilation, and air conditioning, as well as power, lighting, and fire protection; and interior elements such as ceiling, partition, floor, and furniture systems. The 1984 BOSTI<sup>3</sup> study and the 1986 ORBIT-2<sup>4</sup> study were the first to identify the building and organizational responses necessary to accommodate intelligent-building products.

Third, the intelligent office building must address crucial environmental conditions such as spatial quality, including physical safety and secur-

ity; thermal quality; air quality; acoustic quality; visual quality; and building integrity versus rapid degradation<sup>5</sup>. The "high-tech" building must provide the appropriate setting to accommodate immediate electronic enhancements, as well as future technologies and the anticipated level of long-term user requirements. A recent National Academy of Sciences report on the "Electronically Enhanced Office" explored this relationship of intelligent-building products and the physical and environmental responses needed<sup>6</sup>.

To achieve these three conditions (indeed, these levels of innovation), the design and delivery of an "intelligent" office building must take an unprecedented series of steps. These include a long-term mission statement written with expert input, anticipating the capacity for change; clear goals for short and long-term budgets; a team decision-making process involving a range of experts (including telecommunications and high-technology HVAC experts and facilities managers) with decision-making power from the project's outset (for cost-effectiveness and performance); a performance design and construction contract with testable specifications; a controlled building diagnostics process for quality assurance through design and construction; an expert commissioning stage, to lead into long-term expert maintenance and operation; and a growing use of field evaluation techniques and user questionnaires to assess the overall performance of the integrated system for the building occupancy<sup>7</sup>.

Most critically, however, the intelligent office building must clearly improve the quality of the workplace for the individual; this represents a major philosophical change in office design. After all, what is the electronically enhanced office intended to facilitate, if not organizational effectiveness, worker speed, understanding, communication, productivity, and user well-being?

## An Evolving List of Design Changes

The Advanced Building Systems Integration Consortium (ABSIC) at Carnegie Mellon University is a university-industry cooperative effort focused on translating these critical conditions for creating the office of the future into an evolving list of building design and management changes.

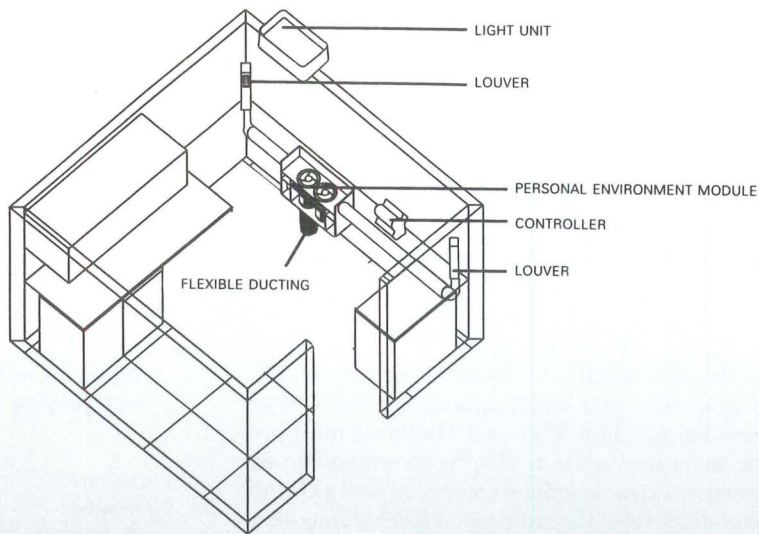
Based on field evaluations of some of the most advanced office buildings around the world, using both objective and subjective diagnostic tech-

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## Physical Considerations for Incorporating Technology

- 1 Structure
- 2 Enclosure
  - a Exterior Wall/Window
  - b Roof – Position, Configuration
  - c Basement – Position, Configuration
- 3 Building Geometry
  - a Exposure and Orientation
  - b Vertical Distribution: Floor Plates (Leasing Depths), Location of Cores, Core Configuration
  - c Horizontal Distribution: Floor to Floor Heights Structure/Mechanical Systems
  - d Space – Quantity and Adjacencies
- 4 Major Services
  - a Heating, Ventilation and Air Conditioning
  - b Lighting
  - c Fire, Life Safety, Security, Transport
  - d Amenities
- 5 Interior Elements
  - a Ceiling Systems
  - b Partitioning Systems
  - c Flooring Systems
  - d Acoustical Systems
  - e Workstations/Furniture





*Personal Environments™ from Johnson Controls most critically brings ducted fresh air to each workstation and allows for individual control of air speed, air temperature, air direction, as well as task light, task radiant heat, and white noise.*

niques, ABSIC has uncovered some major differences in the way United States, Japan, Germany, and Great Britain are approaching tomorrow's workplace.

### The American Approach: A Focus on the Workstation

The greatest developments in advanced office settings in the United States center around the workstation. Each individual workstation now includes a vast range of electronic peripherals (phones, mini or personal computers, printers, fax machines), supported by ergonomic furniture systems, cable management floor systems, and – for the first time in modern offices – the prospect of individual environmental control systems.

Major building design changes include the introduction of a three-dimensional cable network at the top of the list, involving both vertical and horizontal cable distribution plenums. American manufacturers and designers have developed a range of solutions for horizontal distribution from cable trays overhead, to poke-throughs, trench systems, and raised floors. However, further development is needed in flexible and expandable horizontal cable management technologies and their effective connection with the work surface. Vertical distribution is also not satisfactorily considered in the early design stages, often resulting in inadequate vertical chase space, inappropriately located and accessed.

There has been a shift towards multiple-zone HVAC systems, and a move away from four or five zone-per-floor controls to local fan coil units and dual duct systems, or at least multiple variable air volume controls that offer better management of air temperature. Recently, following the development of the multiple-zone HVAC, there have been advances in individual environmental control technologies for personally setting light, heat, fresh air, and air conditioning levels. The most significant product development in this area is the Personal Environment Module™ by Johnson Controls, in which fresh air is ducted to each desk in an open office, with dimmer controls for cool air, radiant heat, task light, and even white noise.

In addition, the American intelligent office is beginning to show the effects of increased personal computer memory, with mainframe rooms being replaced by mini-VAXes and microprocessors at every workstation linked through local area networks. The shift away from mainframes and remote terminals does not diminish the number of shared facilities, however, for there has been a growth in group spaces for interactive work, for printers, fax machines, copiers, electronic conferencing, and social spaces.

To end the list, there have been a few examples of the design process shifting toward team decision-making to guide the creation of an intelligent



office. Most notable is the TRW headquarters project in Cleveland, where a full-time project manager coordinated a team of equal decision-makers including building architects, interior architects, mechanical engineers, telecommunications engineers, and the contractor. This design team was fully involved from early conceptual design through one year of commissioning to ensure that the office headquarters had the latest in technology and the physical and environmental setting needed to support the technology.

### The Japanese Approach: A Focus on the Core

It is clear from looking at Japanese intelligent office buildings (including Toshiba's Headquarters, NTT's Tokyo Twins, Ark Hills, and Takenaka's Umeda Center) that the emphasis is on the building core and its servicing systems, rather than on workstations or on building enclosures. Although the list of major "intelligent" design changes includes a rethinking of the 3-D cable network (as in the United States), the vertical distribution in Japanese office buildings is far better resolved – through distributed cores – than the horizontal. The assumption appears to be that the workstation arrangement will remain static, while the workstation hardware will change.

Multiple-zone HVAC has also been embraced in the Japanese office but with distributed mechanical systems rather than space-by-space mixing devices. These distributed mechanical rooms vary from one every three floors to four per floor, to "cell body" control of light, temperature, and air. This allows more thermal control in the constantly changing office setting.

There is much more commitment in Japan than in the United States to technologies for resource conservation (energy, water, and air), including gray water management, thermoelectric cooling, load balancing, and off-peak storage. There is also more far-reaching development of systems for fire and earthquake management and systems for vertical transportation (elevator and "communication" fire stairs), all located in the core. Most unprecedented is the development of post-occupancy robotics for continuous environmental testing (temperature, air quality, noise – Ark Hill) and for unmanned window washing (Umeda).

Japan is also a leader in team decision-making. The design process encourages teamwork from the outset among architects, engineers, constructors, and facilities managers. The missing link, however, is the organized input from occupants – regarding workstation design and servicing and individual environmental requirements for light, heat, air, and sound control.

### The German Approach: A Focus on the Shell

Although polar differences were not sought by the ABSIC team in their studies, the German

intelligent office designs (including Colonia Insurance Headquarters, Daimler Benz Headquarters, Nixdorf Regional Offices, and the Institute for Applied Microelectronics) focused far more on the building shell than on either the core (as emphasized in Japan), or the workstation (as emphasized in the United States). Intelligent office building design in Germany is shifting toward six- or seven-story buildings (rather than high-rises), with increased exposure to the landscape through campus planning, green atriums for social spaces and circulation, and smaller floor plates.

The combination of daylight and artificial light interfaces is explored, and lighting management systems have been developed, including exterior sun-shading devices and distributed lighting controls. Siemens is developing window lenses to distribute even daylight deep into office bays and to eliminate glare. Air-flow windows and water-heated framing technologies have been developed using waste heat from the highly automated office to minimize occupant discomfort, energy loads, and building degradation. The interface of mechanical ventilation and operable windows for fresh air is also being explored, with climate sensors to inform the central system and the occupant. The concern in Germany about unhealthy building products is growing, accompanied by rising interest in all natural products and finishes.

This emphasis on environmental issues has fostered a broad range of "intelligent" office technologies, including distributed lighting systems on movable tethers in the ceiling and distributed air systems on movable tethers in the floor. The movable air supply ports are fed by central systems with distributed controls or by individual heat pumps. This interest in individual air supply has led to the simultaneous development of improved raised floor technologies for air and cable management. Early raised floors were acoustic failures (because of vibration, footfall, and squeak sounds), but new technologies are evolving, including the Schmidt-Reuter "eggcrate" floor system, to provide structural soundness and adequate air and cable management space.

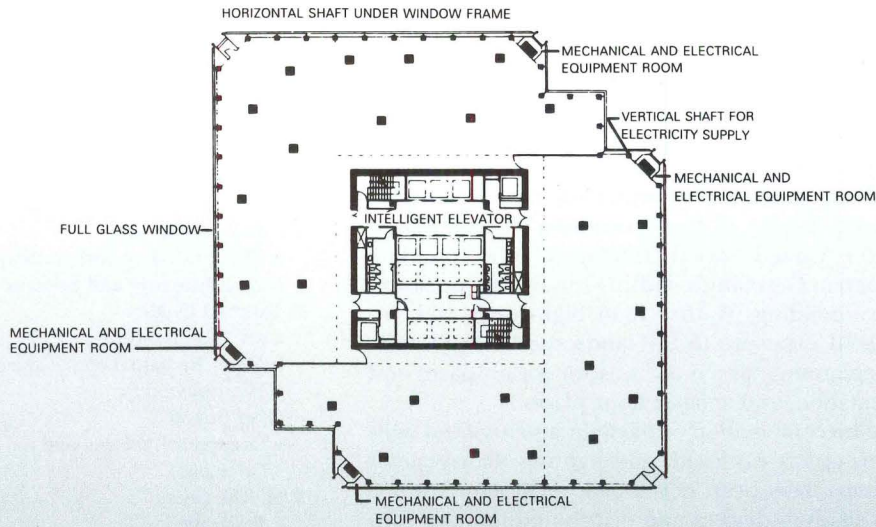
Although there is some emphasis on introducing new cabling technologies, new computer technologies, and new desktop peripherals, the German intelligent office focuses more on providing the vertical and horizontal plenums and on the environmental systems needed for the introduction of future computer hardware than on the rapid development of that hardware. Indeed, the intelligent office concept has led to advancements in quiet, individual heat pumps, lighting and shading systems, and accessible and easily modifiable central mechanical and electrical frameworks.

In contrast to Japan and the United States, the German building delivery process consistently involves the ultimate users of the building from the

## Environmental Considerations for Incorporating Technology

- 1 Safety and Security
  - a Physical Safety and Security
  - b Data Integrity and Security
- 2 Thermal Quality
  - a Air Temperature
  - b Mean Radiant Temperature
  - c Humidity/Static
  - d Air Speed
  - e Occupancy Factors and Controls
- 3 Air Quality
  - a Fresh Air
  - b Fresh Air Distribution
  - c Restriction of Mass Pollution (eg. dust)
  - d Restriction of Energy Pollution/Interference
  - e Occupancy Factors and Controls
- 4 Acoustic Quality
  - a Sound Source Intensity
  - b Background Noise
  - c Sound Path – Noise Isolation
  - d Sound Path – Sound Distribution
  - e Occupancy Factors and Controls
- 5 Visual Quality
  - a Ambient Light Levels
  - b Task Light Levels
  - c Contrast, Brightness Ratios
  - d Color Rendition
  - e View/Visual Information and Relief
  - f Occupancy Factors and Controls
- 6 Spatial Quality
  - a Organizational Layout
  - b Workgroup Layout
  - c Workstation Layout
- 7 Building Integrity
  - a Mechanical/Structural Properties
  - b Physical/Chemical Properties
  - c Visible Properties





*The Umeda Building by the Takenaka Corporation in Osaka, Japan demonstrates use of multiple, distributed HVAC for thermal in 3m x 3m "cell bodies."*

project outset. It is these long-hour, long-term building users who have launched the German intelligent office in the direction of "fresh air architecture" being pursued today. As a result, a high-quality work environment for each occupant is achieved, with more individual or small group offices, to maximize access to daylight, fresh air, and landscaped gardens and courts.

### **The British Approach:**

#### **A Focus on Materials and Details**

The United Distillers, the Grianan, and the Lloyds of London office buildings in the United Kingdom studied by the ABSIC team revealed a fascination with material and detail for their aesthetic qualities justified through their potentially higher performance qualities. All three buildings utilized a limited set of high-quality materials — lead for roofs, stone, stainless steel, glass, and natural wood — to create a modern aesthetic. Each material led to the development of critical detailing, with the support of industry, to ensure immediate high-performance quality and long-term integrity. A restricted number of materials and corresponding details were chosen to ensure an equal level of resolution and appropriate decision-making for integration. The architects also sought an increased exposure of these select materials and details through highly articulated building forms and interior plan cutouts (courts and atrium) to increase daylight exposure.

The engineering expressionism that developed in the Lloyds of London building was designed to ensure accessibility to and expandability of service systems and to accommodate changes in technology. The exposed service cores, with each subsystem (mechanical systems supply and return, electrical, telecommunication, and transportation), independently run on the exterior of the building, create the building aesthetic, and provide its long-term flexibility. These accessible exterior "cores" are a reminder of the large accessible interior cores in Japan and Germany, though far more expressive and expandable.

Interior design also demonstrates the use of a limited number of high-quality materials and well-resolved details, with performance as the economic justification. Light fixtures were engineered to reduce glare and provide individual control (in a heavily automated workplace), while other ceiling assemblies were designed for acoustic absorption with modest reflection and effective return air (in a very high-density workplace). The air flow windows in Lloyds were engineered to use waste heat and to control radiant temperatures and condensation, and the air-flow design was displayed as an aesthetic both inside and out, with supply and return ducts exposed outside each unit.

Finally, there is a significant cultural and polit-



ical tradition in Great Britain, in the form of "right to light" laws, that continues to affect the design of modern high-tech buildings. Direct visual access to windows is still important, with building depths controlled and with courts and atriums designed to maximize sunlight penetration (sunlight "cones"). Clear glass with overhangs continues to be the norm. Daylight has been used traditionally in Great Britain as the primary source of working light in shallow-plan buildings. The two-story Grianan building, in the speculative Dundee High Technology Park, provides working daylight for open office areas through the use of clear glass sloped inward to the sill and a corresponding upwardly sloped ceiling. There is also a continuing interest in Great Britain in passive solar designs for heating, cooling, and lighting commercial buildings. Although there is some speculation that Great Britain will go through a period of sealed, air-conditioned buildings and reflective glass, (because of the global warming trends and the greatly increased use of computers) this trend is already being fought by building research groups (see Sick Building Report<sup>8</sup>) and by office workers currently benefitting from access to windows, clear views, and sunshine.

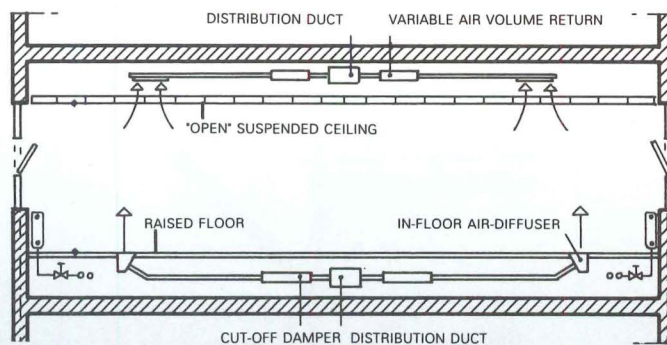
One can argue that the aesthetics of these buildings overwhelmed the design process at some point, leaving the components' independent or integrated performance behind. Nonetheless, there are major lessons to be learned from the careful and limited selection of materials (including daylight), as well as the careful resolution of details and the integration of systems (with the support of industry).

### Conclusions

The creation of appropriate settings for present and future office technologies and activities depends on both a better process and a more flexible, occupant-sensitive product. Questions of closed versus open offices, of three-dimensional cable management, of central versus distributed mechanical systems, of movable lights and air supply, of individual occupant control, and of carefully selected materials and equipment at the workstation, must be explored. In new buildings intended to provide the optimum "environment for innovation," the question must be not which present technologies should be tightly woven together, but what settings should be created to handle today's, and tomorrow's, technologies.

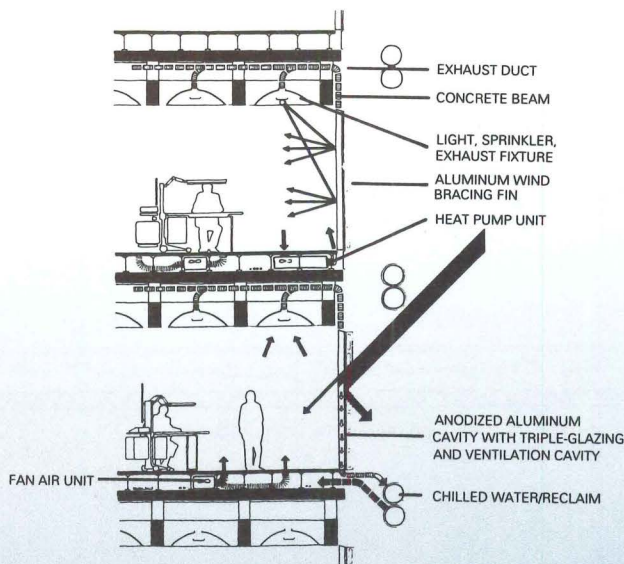
**Vivian Loftness, Volker Hartkopf, Peter A.D. Mill** ■

*Vivian Loftness, Associate Professor at Carnegie Mellon University and architect, divides her time equally among teaching, researching, and professional practice. Her current research focuses on enhancing building performance in various building types. Volker Hartkopf is the Director of the Center for Building Performance and Diagnostics at Carnegie Mellon University, where he is also a professor of architecture. He also directs the Advanced Building Systems Integration Con-*



*The Colonia Insurance Headquarters by BHLM in Germany demonstrates a renewed focus on landscaped views for every workstation, natural ventilation, and operable shading devices.*





*Lloyd's of London by the Richard Rogers Partnership reveals dedication to technical system aesthetics and dynamics with exposed exterior cores and air-flow windows.*

sortium, a university-industry partnership that explores the role of technology in the workplace. Peter A.D. Mill is president of CANTECH (Canada) and Director of the Center for Building Performance at Dundee University in Scotland. As director of the Architectural and Building Sciences Directorate of Public Works in the 1980s, Mill began the building performance evaluation that is the foundation for Office of the Future research effort.

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### Acknowledgements

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The work is the effort of the ABSIC field team comprising Volker Hartkopf, director, Vivian Loftness, Peter Mill, Pleasantine Drake, Fred Dubin, Gaeton Brisson, James Posner, Herbert Rosenheck, and George Ziga. It will be published in several books by Butterworth Publishers in 1990 and 1991.



# The Evolving Office

The Center for Building Performance and Diagnostics at Carnegie Mellon University

lists design changes anticipated for the office of the future.

## Distributed Versus Central Systems

Independent controls are being developed in conjunction with distributed HVAC and telecommunications systems, allowing greater control, individual metering, and selective use.

## Vertical Distribution: Central versus Distributed Cores

Multiple vertical cores for HVAC, power, and communications are becoming increasingly common abroad. These are oversized, strategically placed to minimize horizontal runs, and sometimes moved to the perimeter of the building.

## Horizontal Distribution: Ceiling versus Floor

There is growing emphasis on raised floors for distribution of cables and HVAC. Some buildings use innovative pre-chased wall panel and furniture systems that connect directly to floor (or ceiling) plenums.

## "Fresh Air" Architecture

Building floor plates in Sweden and Germany are becoming smaller and more articulated to take advantage of natural ventilation and daylight. Despite the flexibility of large open-plan offices, abuses of the concept have produced psychologically and physically unsatisfactory work environments.

## Thermal Balancing

The heat gain in highly automated offices has increased the thermal disparity between interior and perimeter zones during winter. New concepts to balance these loads include air-flow windows, multiple heat pumps linked so as to transfer waste heat from one to another, and thermally massive construction in which fans pre-chill or pre-heat the building with off-peak or borrowed energy.

## Light Balancing

Diffusing glass, prismatic glass, light shelves, diffusing blinds, inward-sloping glass, and exterior shading devices are a few daylight controls being used to reduce glare and brightness contrast but still ensure view around computer workstations. Lighting system innovations include continuous dimming fixtures, individually switched fixtures, easily relocatable tether or pigtail fixtures, and glare-shielding fixtures.

## Movable Tether and Pigtail Services

Flexible grid systems for HVAC, lighting, and communications appear to be less expensive in both first cost and operating expense than fixed grid, fixed

ceiling systems. Flexible systems provide services through a series of distributed controllers with tether (star) connections that provide for port location changes, or a pigtail (expandable ring) system that allows additional ports to be added.

## Individual Environments

Control of HVAC, lighting, and background sound is becoming more personalized, affording greater comfort and privacy. This individualization has neither sabotaged the central system nor increased the total system energy demand.

## New Workstation and Planning Concepts

The excessive vastness, spatial confusion, way-finding difficulty, thermal irregularities, and lack of daylight and views of early landscaped office designs are being challenged. A range of alternatives has emerged including: small, closed offices (caves) for personalization and collective workstations (coves) for group projects; workstations on wheels to allow teams to associate and disassociate freely; and clustered open plans to offer a sense of community for teamwork.

## Shared Facilities and Services

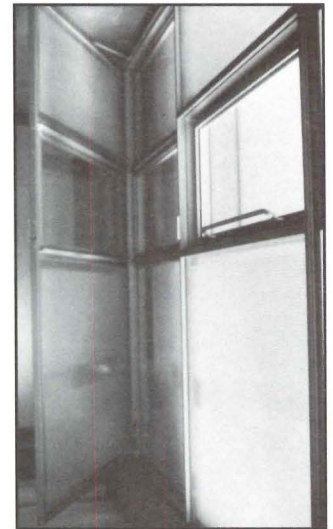
The scope and types of shared services are shifting from telephone switches to fax services; computer hardware and software; copy, postal, and production facilities; and conference, eating, and lounge areas.

## Architecture and Software for the Management Trio

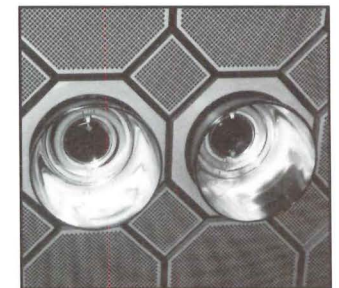
Relocating workstations (the personnel manager's turf) and adding office equipment (the technology manager's turf) affect not only the spatial layout, but also the data and power network as well as HVAC and lighting systems (the facility manager's turf), often without collective decision-making. Computer-aided facilities management packages coordinate the concerns of the management trio by maintaining simultaneous information on building subsystems.

## Architecture and Software for Building Management

In addition to personalized controls, "smarter" controls are appearing for the purpose of monitoring the status of building systems to promote greater occupant comfort and to maximize energy efficiency. Smart building technology and expert system software will enable occupants to communicate more clearly with central systems, facility managers, and – eventually – with building designers. ■




*Airflow windows provide for effective load balancing in the modern office, returning warm air from the overheated work space through the triple glazed envelope, eliminating the need for perimeter heating. Examples of airflow windows can be seen in Germany, in the United Kingdom (A detail of the Lloyd's of London building is shown), and in the United States.*



*Pigtail lighting systems enable the individual to add, move, or eliminate light fixtures in the ceiling grid (similar to plugging together strings of tree lights). The number and location of light fixtures in the Colonia octagonal ceiling system changes frequently whenever desks are moved or space activities change.*





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# Technics Topics

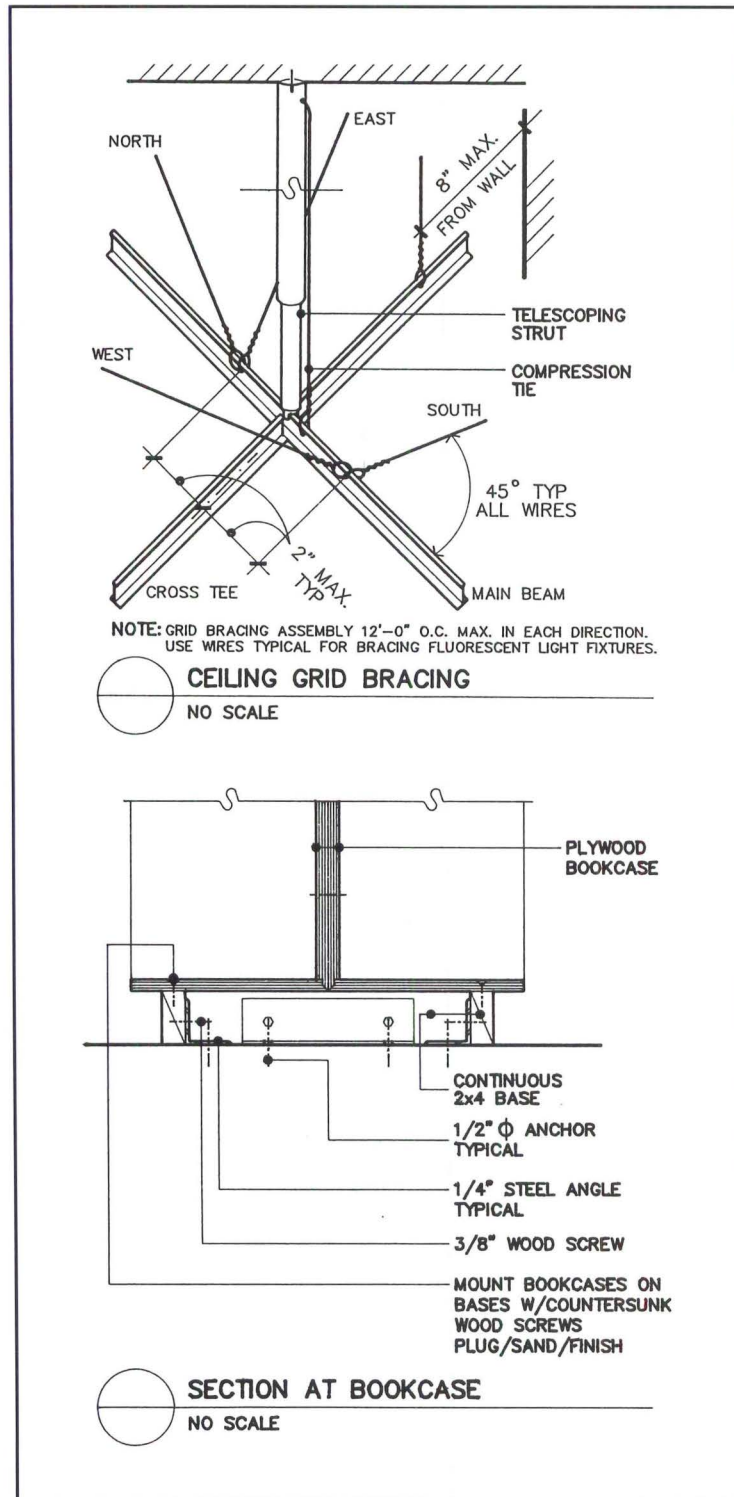
Architect **Pamela Pence Helmich** presents seismic details for interior furnishings tested and proven in the Loma Prieta earthquake.

## Earthquake Resistant Interior Details

When most people think of the hazards of earthquake damage, they think of roof collapse, breaking windows, and overturned perimeter walls. Often just as hazardous, however, are overturned furniture and equipment or office fixtures that become projectiles when they are thrown around the office. Business owners and office occupants learned this lesson the hard way during the October 1989 earthquake in California. Massive banks of loaded file cabinets overturned into corridors, emptying their contents onto the floor and cutting off paths of exit. Bookcases overturned or emptied their contents onto the heads of unlucky office employees trying to escape. Ceilings buckled, tiles popped, and in some cases, ceiling suspension systems collapsed.

Lawrence Livermore National Laboratory had already learned this difficult lesson during the 1980 earthquake. As a result of the damage sustained at the Lab in 1980, the Plant Engineering Group instituted a program of standard construction detailing for the seismic stabilization of all interior building elements, including furniture, fixtures and equipment. Not only did they utilize these details in their own in-house design work, but they also required all their consulting architects and engineers to use them for any work being accomplished at the Lab.

In 1981, Crosby Helmich Yandell & Drake (then GHI  
*(continued on page 56)*



## Tech Notes

The Cast Stone Institute has issued a *Technical Manual*, including, "do's and don'ts," standard details, specs, and case study sills, copings, cornices, and architraves. CSI, Marlton, NJ (609) 858-0271, 90 pp., \$35.

*Offices by S. Bailey* is a guide for architects and clients that reveals British thinking about the high-tech workplace, with emphasis on program development. Butterworth Publishers, Stoneham, MA (800) 366-2665, 188 pp., \$89.95.

ASTM invites participation in new task groups on durability of air and vapor retarders (under Committee E06.22 on Durability Performance of Building Construction) and practices for determining air and vapor flow into and within buildings (under Committee E06.41 on Infiltration Performances). Both will meet in late October. David Bradley (215) 299-5504.

*Exterior Claddings on High Rise Buildings*, proceedings of the November 1989 symposium, is now available from the Chicago Committee on High Rise Buildings, c/o John Zils, SOM (312) 641-5959, 394 pp., \$20. Fifteen papers describe details, materials, systems, engineering, and constructability.

*Seismic and Wind Loads in Architectural Design*, a study guide by S. Crawley and D. Ward, has been published as a second edition by the AIA (800) 242-4140, \$53.50 for members.



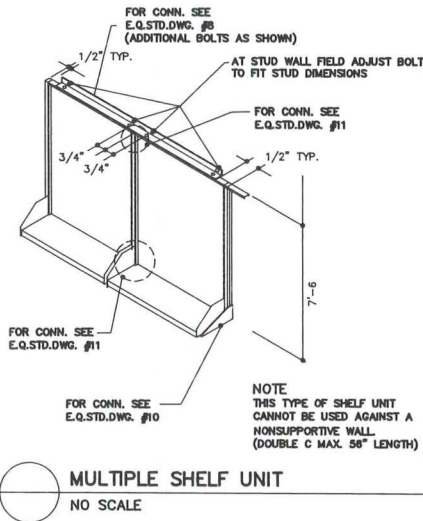
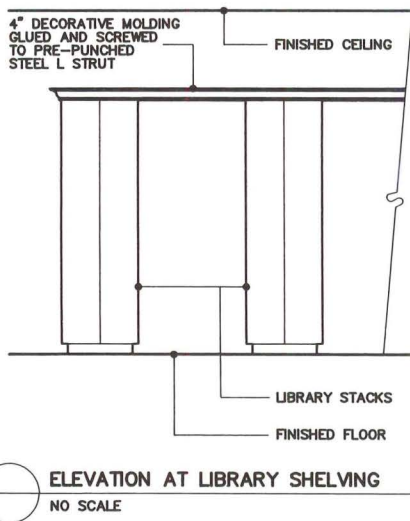
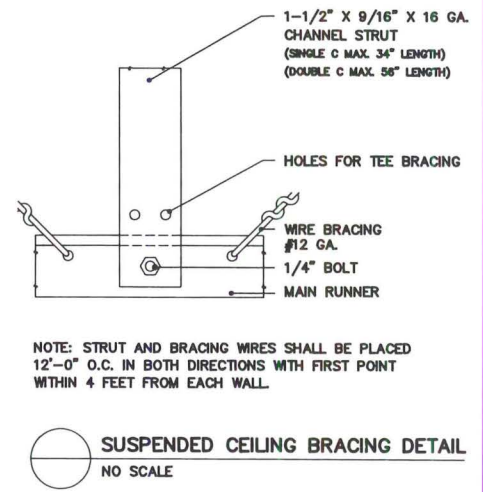
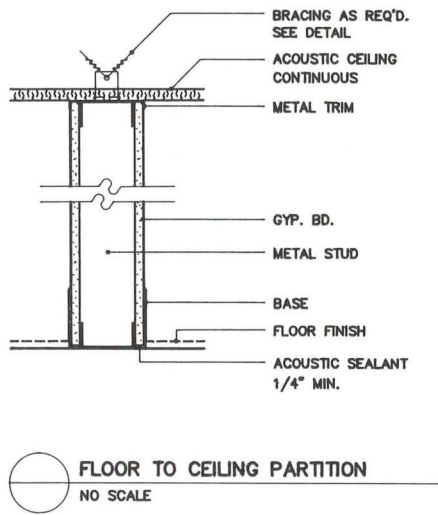
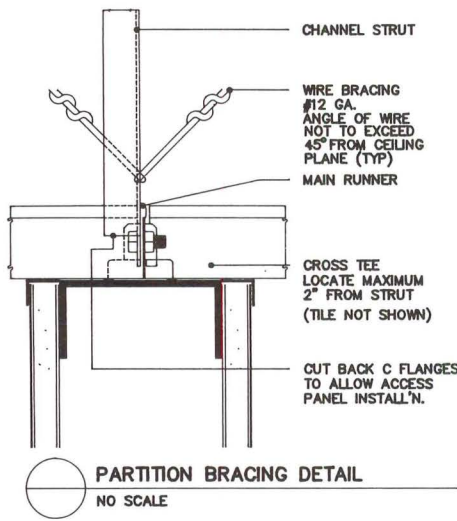


TABLE I. ANCHOR SIZES FOR 0.5 W CABINETS & BOOKCASES CONNECTED TO CONCRETE FLOORS.

DESCRIPTION	TIE DOWN
1) Single cabinets/bookcases	Sleeve anchors
a) Height up to 5'-0"	1/4" $\phi$ x 1-3/8" (min.emb.)
b) Height > 5'-0" $\leq$ 6'-6"	3/8" $\phi$ x 1-1/2" (min.emb.)
c) Height > 6'-6" $\leq$ 9'-0"	1/2" $\phi$ x 2-1/4" (min.emb.)
2) End to end cabinets	
a) Height up to 5'-0"	3/8" $\phi$ x 1-1/2" (min.emb.)
b) Height > 5'-0" < 6'-0"	1/2" $\phi$ x 2-1/4" (min.emb.)



(continued from page 55)

Architects) was hired to provide architecture and interior design services for a number of projects at Lawrence Livermore Laboratory. During the course of our work there, we were required to use the Lab's new lateral stabilization details, to ensure that their experiences of 1980 were never repeated. Coincidentally, other work in our office for other institutional and corporate clients required the inclusion of elements similar to those in the LLNL projects, specifically suspended ceiling installations, freestanding library stacks, banks of five-drawer lateral files, and full height bookcases. Since we had already entered the Lab's details into our own standard detail file, we began to use them for other projects, modifying

them as required for cosmetic purposes. As a result, from 1981 to 1989, law firms, accounting firms, and public utilities alike have benefited from the Lab's standards when we have been commissioned to develop their installation documents.

On October 17, 1989, the Lab's details were tested in high-rise and low-rise office buildings throughout the San Francisco Bay Area. Post-quake calls to clients revealed that little, if any, damage had occurred in their offices. Library shelving remained upright, books remained on shelves, heavily loaded file cabinets did not tip over, and ceilings sustained little or no damage. On seeing newspaper and magazine photographs of the disaster that occurred in other of-

fices throughout the earthquake area, we were gratified that we had used the Lab standards for our clients. We began to tell other architects of the success of the library stack struts, the underpinning of freestanding bookcases, and the lateral ceiling tie details.

My colleagues were interested to learn how we had adapted them easily to the aesthetic demands of our projects. An example, in a law office that wanted to display the law library in mid-height stacks in their main reception area, we located anchors inside the case-work bases instead of on their exterior edges. In another instance, where space constraints dictated 84-inch-high library stacks, we wrapped all of the stacks in decorative crown molding to hide the struts used

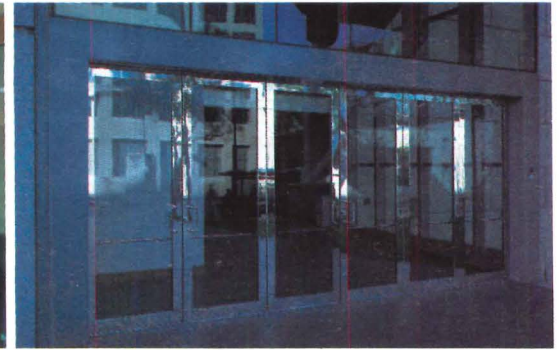
to tie the shelves together across their tops. And we tie ceilings in all our projects laterally, north, south, east and west, as well as vertically, to prevent buckling and uplifting.

There is nothing magic about the details that the Lab developed and that we now utilize. The success lies in the simplicity of the details and in the fact that we use them routinely. While tenants in modern earthquake-resistant structures may not fear collapsing roofs, breaking windows, and failing perimeter walls, they are also free of the lesser-known hazard of injury from their furniture, fixtures, and equipment only when they are properly installed. **Pamela Pence Helmich**

The author is a principal of Crosby, Helmich Yandell & Drake, Architects in San Francisco.



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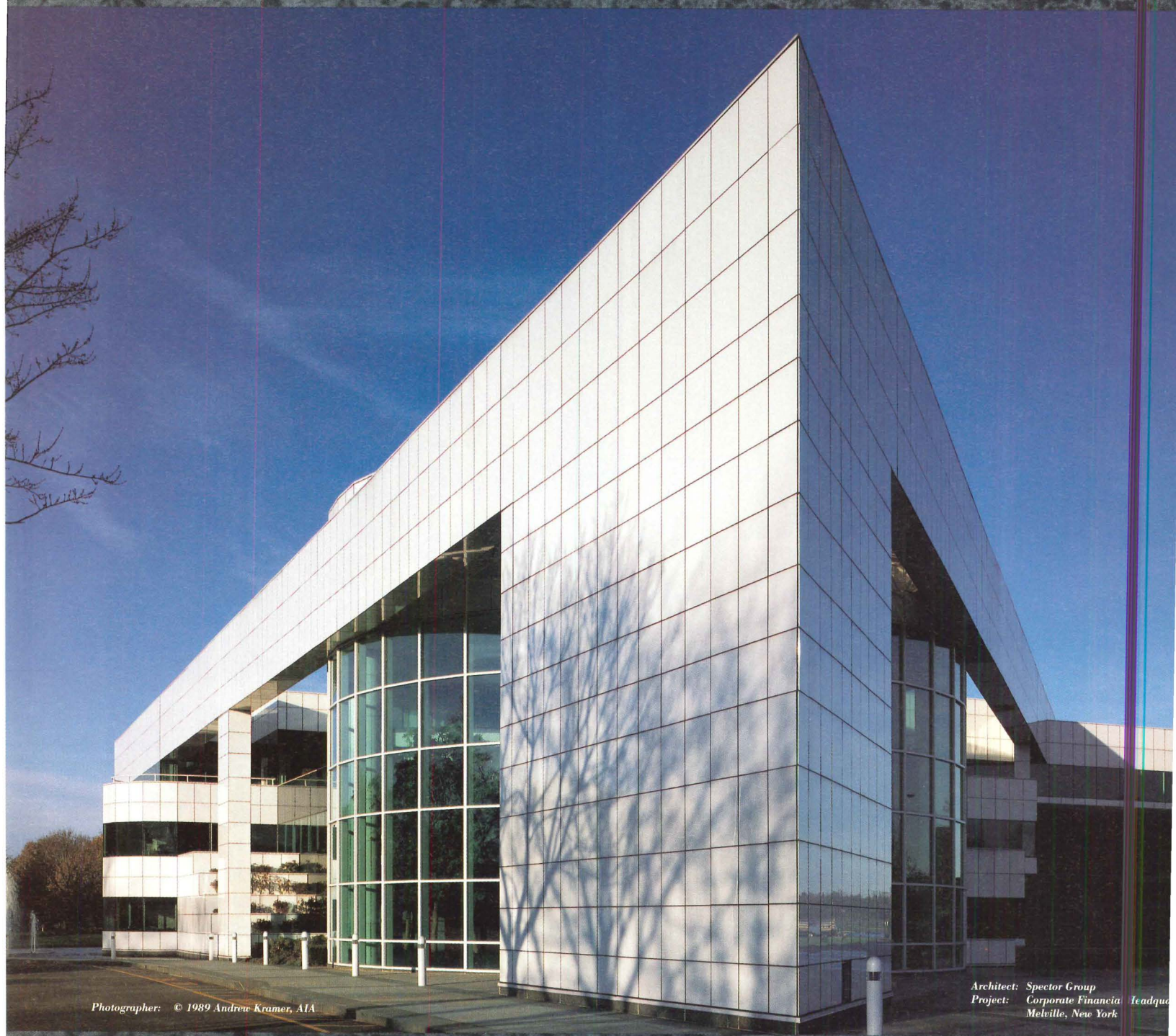
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# Building Science Brief 9/90: Condensation on Windows

Condensation on the indoor surface of windows is an index of the architect's attention or inattention to design conditions and glazing system properties. While the designer has little control over indoor humidity, certain glazings will avoid condensation within specified temperature and humidity limits.

Condensation occurs on a surface when its temperature falls below the dew point temperature of the surrounding air. Predicting whether condensation will occur is essentially a problem of estimating surface temperature. The temperature of any surface within a wall is proportional (under steady state conditions) to its location with respect to the thermal resistance of the assembly:

$$T_s = T_i - (T_i - T_o)R_s/R_o \quad [1]$$

where  $T_s$  is the temperature of the surface of interest,  $T_i$  is the indoor surface temperature,  $T_o$  is the outdoor temperature,  $R_s$  is the R-value of materials and air film on the inboard side of the surface, and  $R_o$  is the overall R-value (including air films) of the assembly.

In the case of indoor surfaces,  $R_s$  applies to the indoor air film alone, which is usually taken as R-0.68.  $R_o$  is the reciprocal of the assembly's U-value. By substituting the dew point temperature  $T_{dew}$  for  $T_s$  and U for  $R_o$ , the expression can be rewritten and rearranged,

$$U = 1.47(T_i - T_{dew})/(T_i - T_o) \quad [2]$$

This gives the U-value needed to prevent condensation over the center-of-glass (COG) — that area more than 2 1/2 inches from the edge of the vision area (sightline). Conden-

sation may still occur within the 2 1/2-inch-wide edge-of-glass zone. The dew point temperature for any relative humidity and dry-bulb temperature can be figured from the psychrometric chart (1).

*Example 1.* What U-value is necessary to avoid condensation over the COG area when the outdoor temperature is 10 F, indoor temperature is 72 F, and RH is 50 percent? Figure 1 shows that  $T_{dew}$  is about 52.5 F, so  $U = 1.47(72 - 52.5)/(72 - 10) = 0.46$ ; an air-filled low-e glass is adequate.

Designers may wish to restrict condensation to a much narrower band around the perimeter. The perimeter is colder than the center of the glass because the edge spacer is a thermal bridge; in effect, the glass behaves as if its U-value increases from the COG to the sightline. The effective U-value  $U_{eff}$  at any distance from the sightline is a function of the conductance of the spacer and the COG U-value. Researchers at Lawrence Berkeley Laboratory have used computer methods to calculate  $U_{eff}$  at distances of 1/4 and 1/2 inch from the sightline for different spacer types (Figures 2 and 3). Edge condensation can be controlled by treating the U-value obtained by Equation 2 as  $U_{eff}$ , and finding the corresponding COG U-value by which to specify a glazing or window from Figure 2 or 3.

*Example 2.* What U-value or spacer type is necessary under the conditions of Example 1, to confine condensation to no more than a 1/2-inch-width of perimeter? The U-value of 0.46 is entered into the left side of

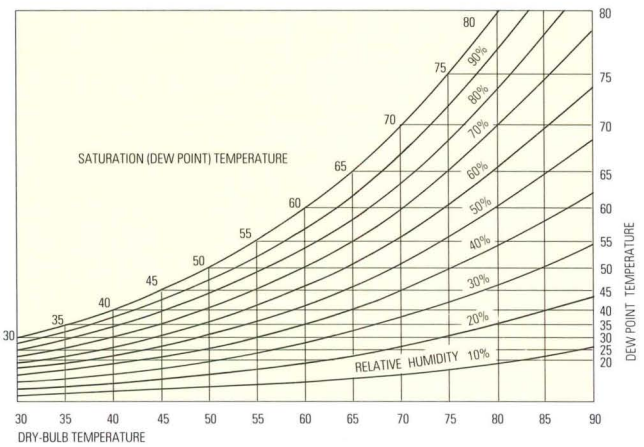


Figure 1. Psychrometric Chart.

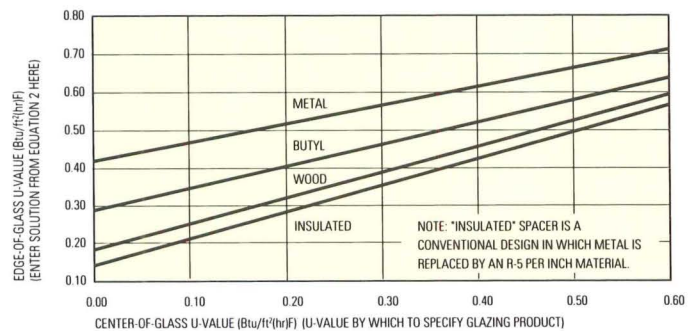


Figure 2. Edge-of-Glass U-values ( $U_{eff}$ ) at 1/2" in from Sightline.

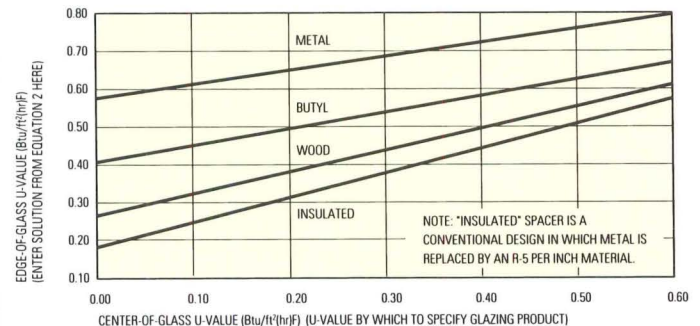


Figure 3. Edge-of-Glass U-values ( $U_{eff}$ ) at 1/4" in from Sightline.

Figure 2. The required U-value is 0.08 for a metal spacer, just under 0.3 for butyl, 0.39 for wood, and 0.45 for an insulated spacer. There are no (thermally unbroken) metal spacer windows with a U-value as low as 0.08, while 0.3, 0.39, and 0.45 can be met by a variety of low-double and triple glazings.

The limitations of this new method begin with Equation 2. The indoor film resistance  $R_s$  varies with the surface temperature being figured and can deviate significantly from the assumed value of 0.68 when there are drafts across the glass. The method does not apply when shades, drapery, and other window treatments cover the glass. Convection occurs

between layers of multiple glazings, and this usually produces a wider band of condensation at the sill than the head or jambs; this method describes jamb conditions. The thermal characteristics of spacers vary between manufacturers, and due to large changes in temperature distribution over a very narrow area at the edge, the results should be thought of as providing guidance — not absolute answers. **Kenneth Labs**

*P/A would like to thank Dariush Arasteh of Lawrence Berkeley Laboratory and Nan A. Byars, on leave from California Polytechnic University to LBL, who helped conceive the new method presented here, and who prepared Figures 2 and 3 expressly for P/A's readers.*







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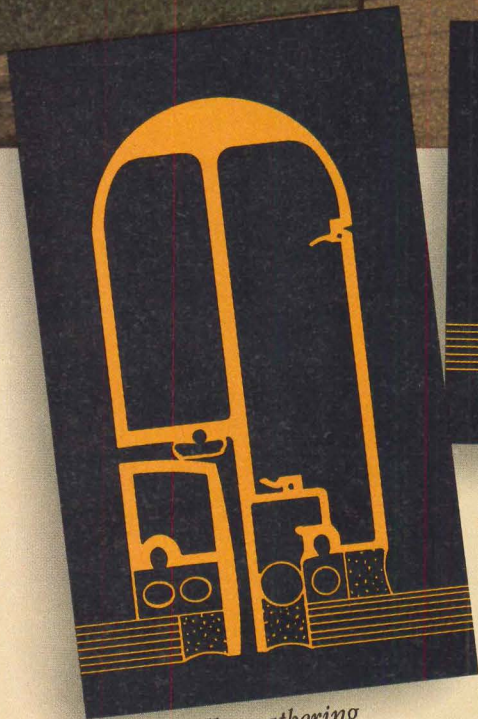
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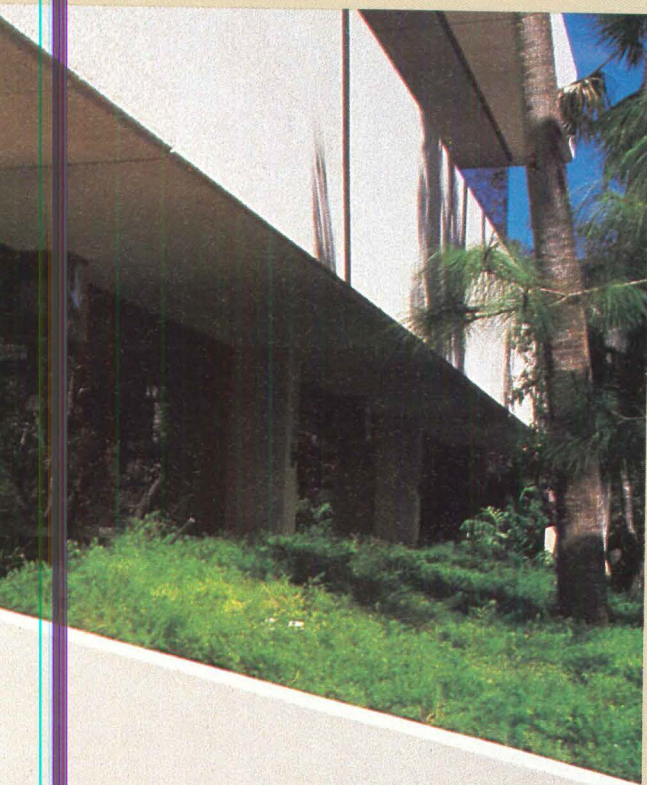
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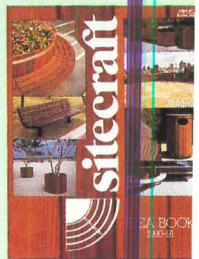
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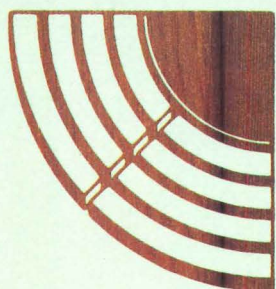
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# Practice

Robert Greenstreet and Nancy Hubbard suggest ways to collect fees.

## Law: Collecting Fees

The practical side of getting paid can require a considerable amount of the architect's time. The process begins with pre-contract meetings. Many architects neglect educating the client about the methods and terms of payment for fear of offending the client at the outset of the relationship. The architectural invoice, however, is very different from the usual bill, and the client may need to learn how to read the invoice and to be shown what format it takes to avoid any misunderstandings or payment delays.

Likewise, the architect must be willing to be educated in the client's payment procedures and should seek such information if not offered. Corporate, public service, and municipal clients, for example, may have complicated often lengthy processes for payment, fixed payout schedules, cutoff dates for receipt of invoices, and required purchase order numbers. A lack of awareness of these dates on the architect's part can delay payment.

Architects must demonstrate efficiency in their own invoicing practices. Blending the firm's standard invoice format with the specific information required by the client for payout can make it easier (and ideally faster) for payment to be issued. A clear separation of an invoice into categories for Basic and Additional Services and reimbursable expenses, or even issuing a separate invoice for each service and expense, may result in prompt payment.

Invoices must be sent out in a timely fashion. Requesting

payment for services completed one or two months before may send a message to the client that the architect is in no rush to receive payment. Invoices must also be accurate; the client who finds a mistake in calculations is likely to develop a diminished respect for the architect's basic abilities.

Follow-up in invoicing increases the speed of client payment. A friendly telephone call ten days after the invoice has been issued helps to establish a sense of urgency on the client's part to make payment. If payment has not been received after 20 days, a second call (still friendly, but firm) should make it clear to the client that payment is due immediately. Written records of these contacts should be made at the time of the call, listing dates, parties involved, topics discussed, and details of payment arrangements. If a third call is required (usually 30 days after the invoice), records of previous contacts should be used to demonstrate to clients that they have not fulfilled their contractual obligations. The documentation will provide an essential record in court.

The introduction of lawyers, or even the possibility of legal involvement, often results in payment. A short letter on a law office letterhead may be all that is required to demonstrate the architect's seriousness to the client. Such a letter is a relatively low-cost item but can be a powerful tool in collection.

Five basic rules should be followed:

1. Collections letters should not libel the debtor in the event that a third party is sent the

letter (such as a client's employer) or inadvertently has access to the letter (such as a secretary).

2. Simulated legal procedures should not be used, such as formatting a collection letter to appear as a legal document.

3. Do not use any message on the exterior of a collection letter or use a postcard as a collection notice that may be construed as threatening or libelous; they are in violation of postal laws.

4. Do not direct collection activities to other parties or to the public, for example, telling a receptionist that her employer does not pay his bills, or leaving a message on a client's desk that a collection visit was made.

5. Do not harass the debtor client by sending a barrage of threatening, vindictive letters or making telephone calls to the client's home at inappropriate times.

If an outside collection agency is considered, the architect must be fully aware of its procedures, since the agency's tactics will reflect on the architect and may eliminate the possibility of reconciliation.

Efficient and effective fee collection depends upon the consistent implementation of well-articulated office procedures. Smooth fee collection not only ensures a financially healthy office, but enables the architect to spend more time on the more enjoyable aspects of practice.

Nancy Hubbard, Robert Greenstreet ■

*The authors are faculty members in the Department of Architecture at the University of Wisconsin-Milwaukee.*

## Practice

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## Practice Points

**After more than a year of controversy, the National Association of Attorneys General (NAAG) has permanently suspended their Model Design and Construction Documents and will no longer disseminate copies to the public. The model legal documents had caused concern among architects, engineers, contractors, and insurers because they significantly changed the traditional relationships among building professionals. Contact the NAAG at (202) 628-0435.**

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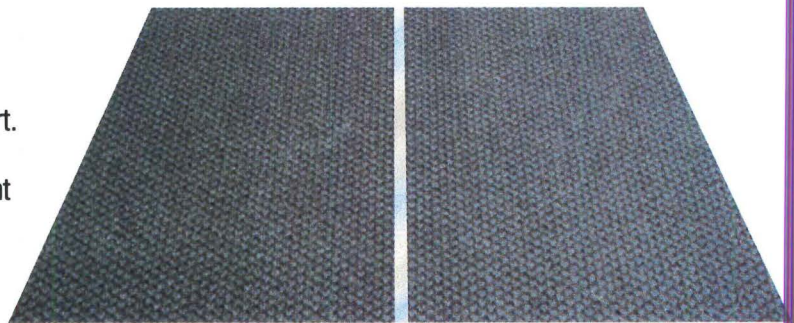
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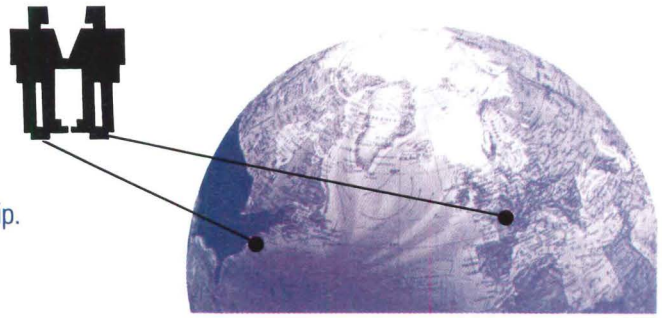
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**Jonathan P. Butler** discusses the practice, design, and construction

differences that must be addressed in a transatlantic partnership.



### Management: Transatlantic Partnerships

Ever consider forming an overseas partnership? A collaboration between a French and an American architectural firm perhaps? My firm, Butler Rogers Baskett Architects in New York, and Eric Lieure Architecture Intérieure in Paris did that.

While there are no “typical” international projects, certain differences must be routinely dealt with in a transatlantic collaboration. In New York licensed architects must – at this time – be the architects of record. In France, building architects and interior architects both are licensed for interiors.

The language of the business documents is determined by the country the project is in. That can present problems when it is an American client and the owner/architect agreement is in French, or the reverse. Many corporations use English as their official language for international business, yet there is a difference between social and business language. Obviously, it's important to have architects who can speak the client's language.

There are no real up-to-date French equivalents to the AIA standard agreements. In fact, in France, design services are often performed with minimal agreements. And while, in the United States, architects expect to be compensated for additional services such as client changes of direction, that is more difficult in France.

Contract documents also differ. In France, the document is made up of three parts – a set of floor plans, a drafted booklet

of construction details, and a written specifications manual. While American contractors are accustomed to using working drawings as their primary source, the French contractor gives more weight to the written spec book.

In light of our experience, we believe there is more of a tradition of field problem-solving in France. In the United States, perhaps because of the larger scale of the projects and the rigidity of the construction contract process, field changes are more expensive.

Working with a French partner enabled us to sidestep many of the business problems we would have encountered had we set up a separate office in France. Because our staff was paid through our New York office, we avoided having to deal with French taxes.

The American institution of “construction management” is virtually nonexistent in France. Most French contractors are accustomed to working on a lump-sum basis, and are not used to an open-book relationship with a client. On small projects, the architect is expected to be the construction manager himself – supervising and coordinating the work of the subcontractors. On larger projects, the general contractor hires the subcontractors.

When you are ready to specify furniture and furnishings in France, you will find that the furniture dealers do not exist. Furniture manufacturers deliver and install. This eliminates the union installation battles we sometimes experience, but it puts a lot of the responsibility in the architect's hands.

### Design Process Issues

One of the biggest challenges in a transatlantic collaboration is the language difference. While we, as architects, had the advantage of being able to communicate with visual images, we needed a team with bilingual capabilities. Another challenge was to create a team with people who had dissimilar work styles and habits. For starters, the profession of interior architecture in France tends to be less oriented towards business.

In Paris, a typical mid-size interiors firm may have 12 to 15 architects working as a fairly unstructured group under the leadership of the firm member with the greatest status. In the U.S., because of the larger scale of projects, it is usually more efficient to form a team that includes a project manager, project architect, etc. In Paris, we compromise and have an unstructured team with a project manager.

Cultural differences are also reflected in staff work habits and hours, with the French less structured than Americans. In addition, vacation time in France is five weeks per year.

Even expectations about the workplace differ. Air conditioning and sophisticated technology are not always the rule for French offices. There is, to our knowledge, no mylar or yellow trace in France and only one pin bar print machine in all of Paris. The tradition in France is to use ink on velum, versus the ink or pencil on mylar that is typical in the United States. And, of course, there is the metric versus the U.S. Customary System of measurements.

In general, French firms are not as dependent on computerized drafting as we are in the United States. Yet, it was Apple technology in the form of an Applelink network and an ArchiCad software program that made it possible for our two firms to send drawings and information almost instantly from Paris to New York.

### Building Design Issues

When designing office buildings in Paris, the base building architecture strongly determines the possibilities of the interior architecture – often more so than in New York.

- The typical Paris spec office building is 10 floors with a floor size of 10,000 square feet.
- Because of the small floor size in Paris, the core-to-window dimension is not designed for an open-plan systems layout.
- Adequate mechanical/electrical systems are often not part of the base building.

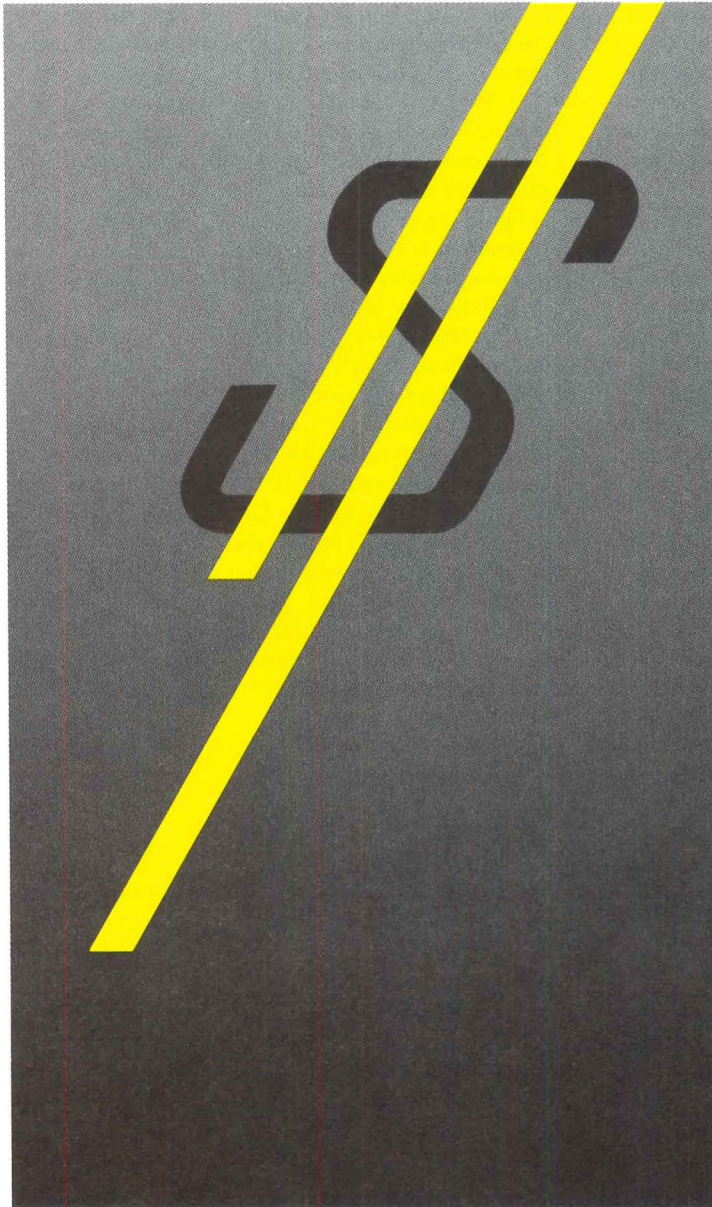
So what building issues are the same in Paris and New York? Construction costs! In both cities, they are high.

Although it's too early to sum up our experiences, Eric Lieure and Butler Rogers Baskett have seen a bridging of design philosophies and language. It has not been all Concorde and Moët Chandon, but it has been rewarding and seems to make sense at a time when the European community is preparing to come together in 1992. **Jonathan P. Butler** ■

*The author is a founding partner of Butler Rogers Baskett, a New York architecture and interior design firm.*



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**Terry Patterson** suggests a resolution of the

scholarly-vocational split in the schools.



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$$Q_f = (T_i - T_o)/R_o$$

### Education: The Reconcilable Duality

The consistent and undiminished frustration practitioners express over the inadequacy of new architectural graduates is as curious as it is serious. How can a condition of such longevity have an equally long history lacking corrective action? The problem lies in our failure to correctly define the duality of architectural education.

This failure is especially odd given the long-accepted art-and-science duality of architecture. The phenomenon that is not taken seriously enough is the scholarly-vocational duality, which is not so far removed from the art-science split.

The view that the scholarly-vocational split should occur vertically between design and production is the problem. The most obvious example of this is when educators assign to practitioners the responsibility for teaching working drawings. Although many practitioners argue that too much is asked of them, most schools limit working drawings courses to one offering or totally omit them from the curriculum. Another working drawings course, however, is not the solution.

A new teaching format is necessary if we are to make progress toward a more useful graduate. Step one is to recognize that the who-teaches-working-drawings argument addresses the wrong issue. The proliferation of working drawings courses in architectural drafting programs shows why. Graduates of these programs are having increasing difficulty competing with graduates of

accredited architectural schools over the long haul, showing that university programs provide a scholarly experience that cannot be matched in the work place. Universities should concentrate on this realm.

But the belief of many university educators that they already concentrate on the philosophical realm (working drawings omitted) is a partial truth that impedes change to the status quo. The scholarly focus of architectural education is diluted with vocational-like ventures.

Although the traditional co-op approach as we know it is not the answer, it does offer the most fertile format for useful revision. The typical co-op model, which sends students to offices for periods of work between periods of classroom instruction, fails to produce a whole greater than the parts.

A modified co-op format, however, is feasible, providing mutually beneficial experiences without taxing the resources of the participating office. First, schools must accept responsibility for teaching the scholarly aspects of both design and production in the classroom. Although teaching the theory of design is a well established academic endeavor, teaching the theory of everything else is not. All architectural activities, including construction documents, bidding, and construction administration, are based on some theory. Schools should focus on this and give up the struggle of teaching the vocational aspects of architecture in the classroom.

Second, practicing architects should not have to teach the

theoretical aspects of production (and everything else) to co-op students in their offices, as happens when students come to them without an adequate theoretical base. In this new model, several semesters of a five-year program would be taught in an architectural office. The instruction would be vocational in nature and would be given by a university professor at the office location, with the firm providing space, desks, and access to job data, files, and the library. The school pays the professor. The office does not pay the students.

The professor would develop application-oriented assignments based on the current office work, and the student would complete the assignments on a schedule parallel to that of the office. The professor would supervise the student work with the periodic consultation of office personnel, whose contact with students would be informal except for lunch-time critiques. Office personnel would not supervise or instruct the students, and design and production work would not be used by the office to meet the need of commissions, except during busy periods, when an office might want to pay the students and professor for use of their work.

The office assignments would build on the theory previously taught in the classroom. Assigning the same professor to teach the theory in the classroom and the applied segment at the office would help assure that the experiences are not isolated from each other. Hiring an adjunct professor from the office staff to teach the stu-

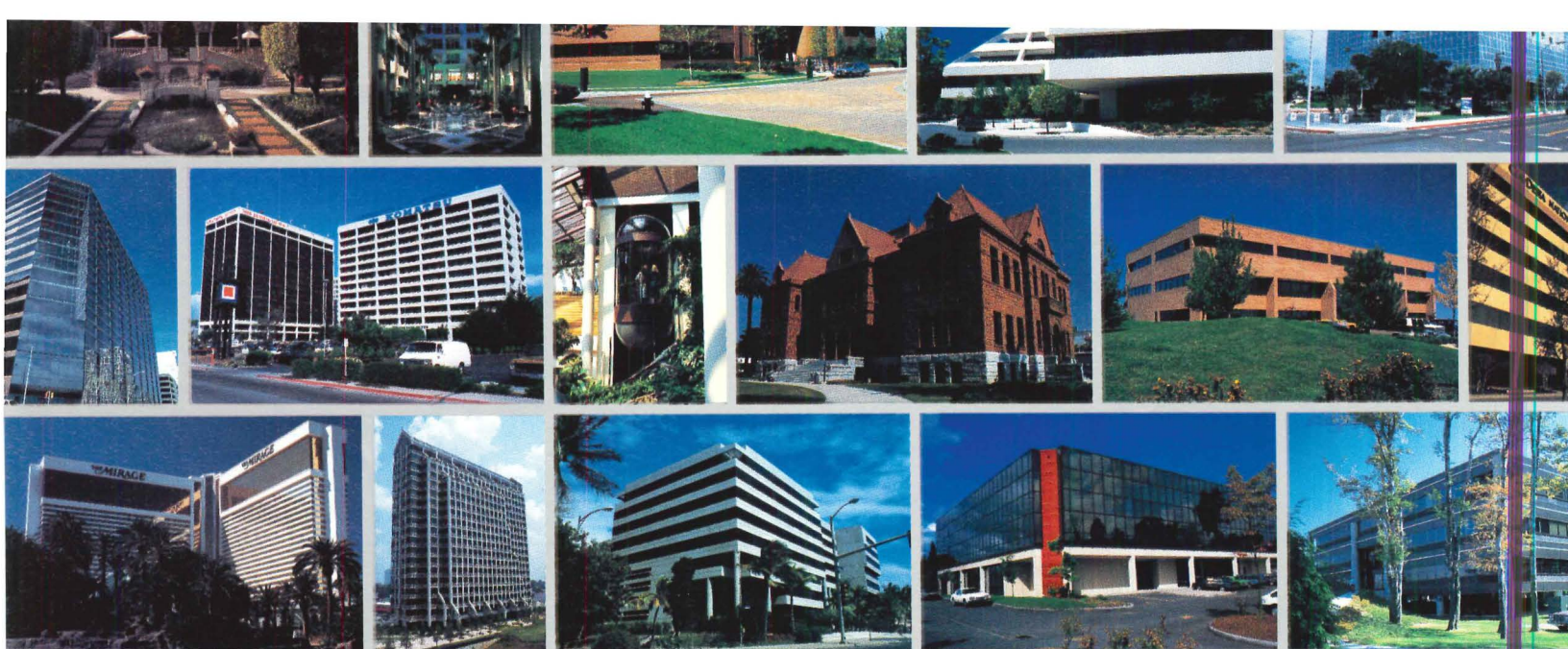
dents is not recommended, since an adjunct would not have the necessary commitment to continuity between classroom theory and office work.

The drawback of this new format is that it upsets traditional academic routine. Course work would have to be reexamined to separate theory from application, and the essence of the theory that drives production-oriented activities would have to be identified and developed into courses. The applied aspects of design instruction also would have to be identified and removed from the school studio. New kinds of assignments would have to be developed for use during the office phase, and architectural offices would have to make room for 10 or 15 students.

The benefits of this format include a better educated (and trained) graduate, research opportunities for the professors in the offices, and the easing of space demands on campus. The investment from offices would be low compared to their present contributions to the educational process (which often occur by default). Universities would devote all of their campus efforts to the teaching of pure theory, an arena in which they are better equipped to succeed, and the teaching of vocational skills in offices would improve chances for success in that realm. Finally practitioners who are unhappy with the abilities of new graduates would have a vehicle for influencing the process that produced them. **Terry Patterson** ■

*The author is an architect and a faculty member at the University of Oklahoma.*

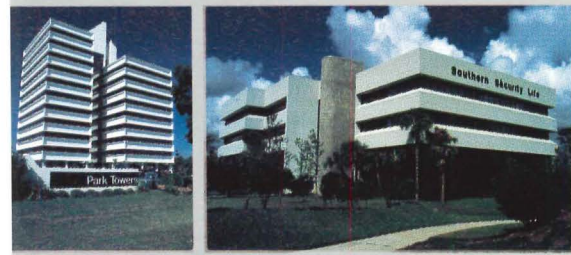




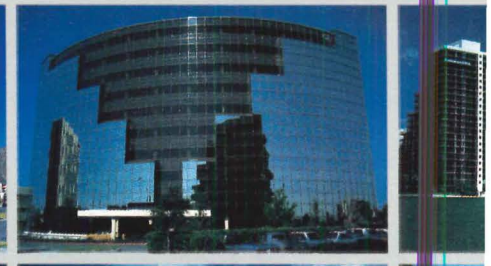
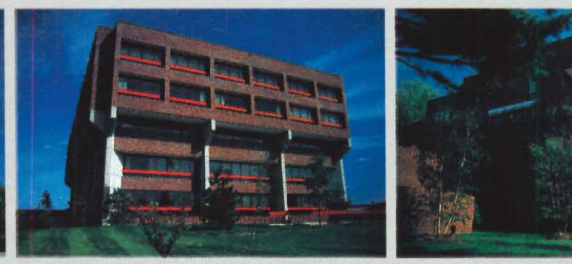
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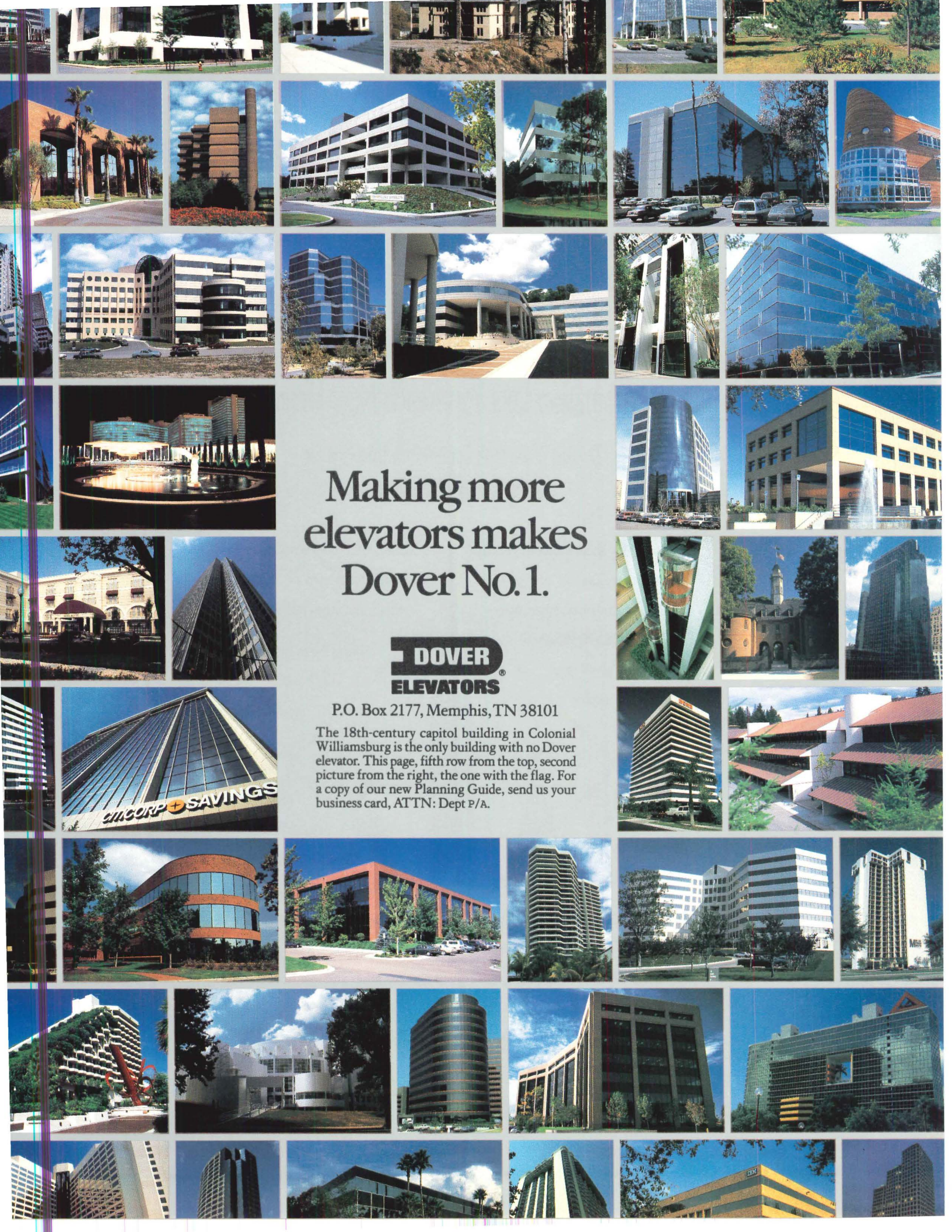
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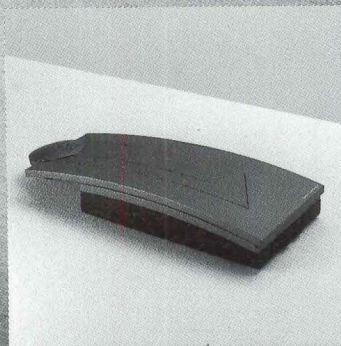
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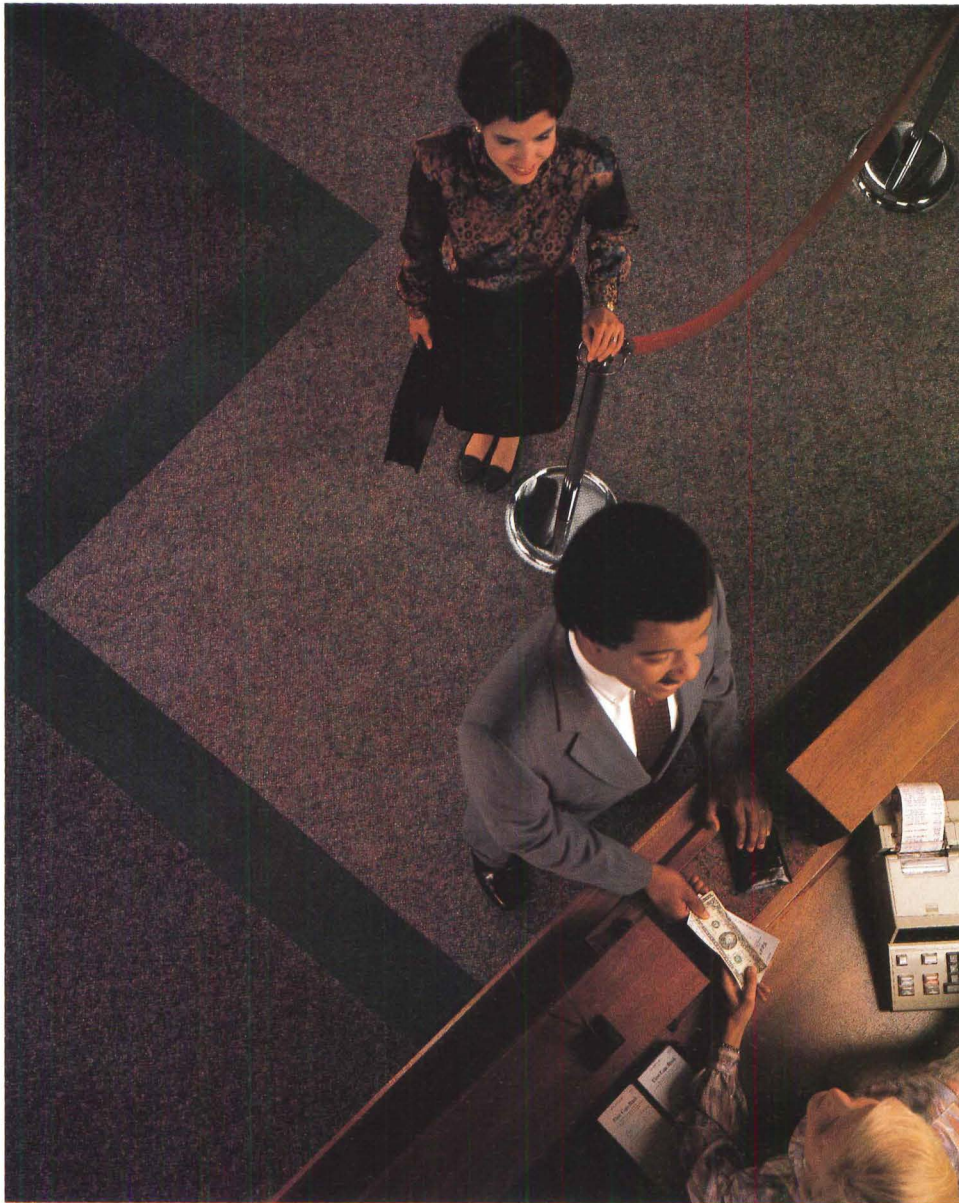


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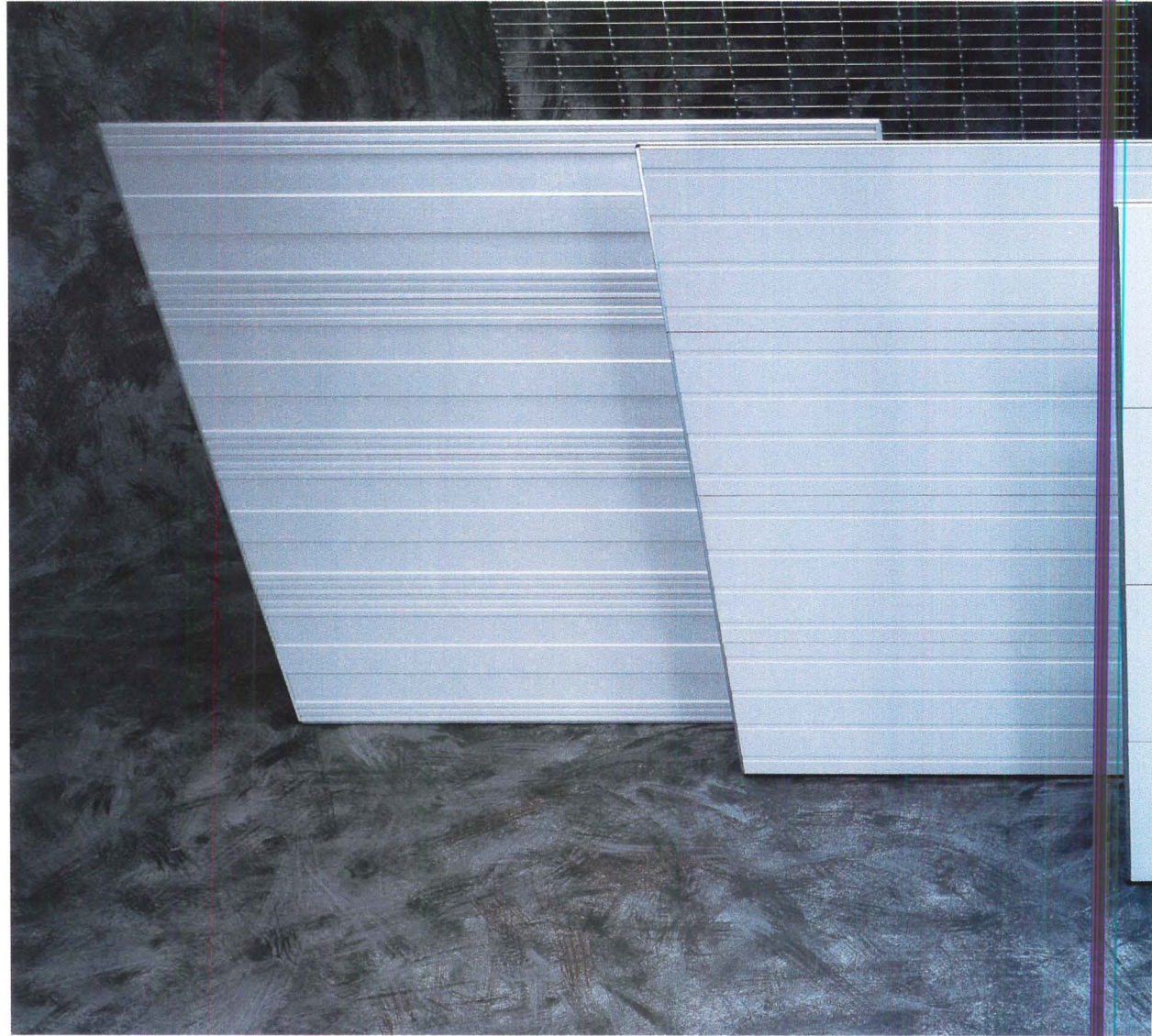


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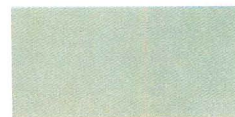
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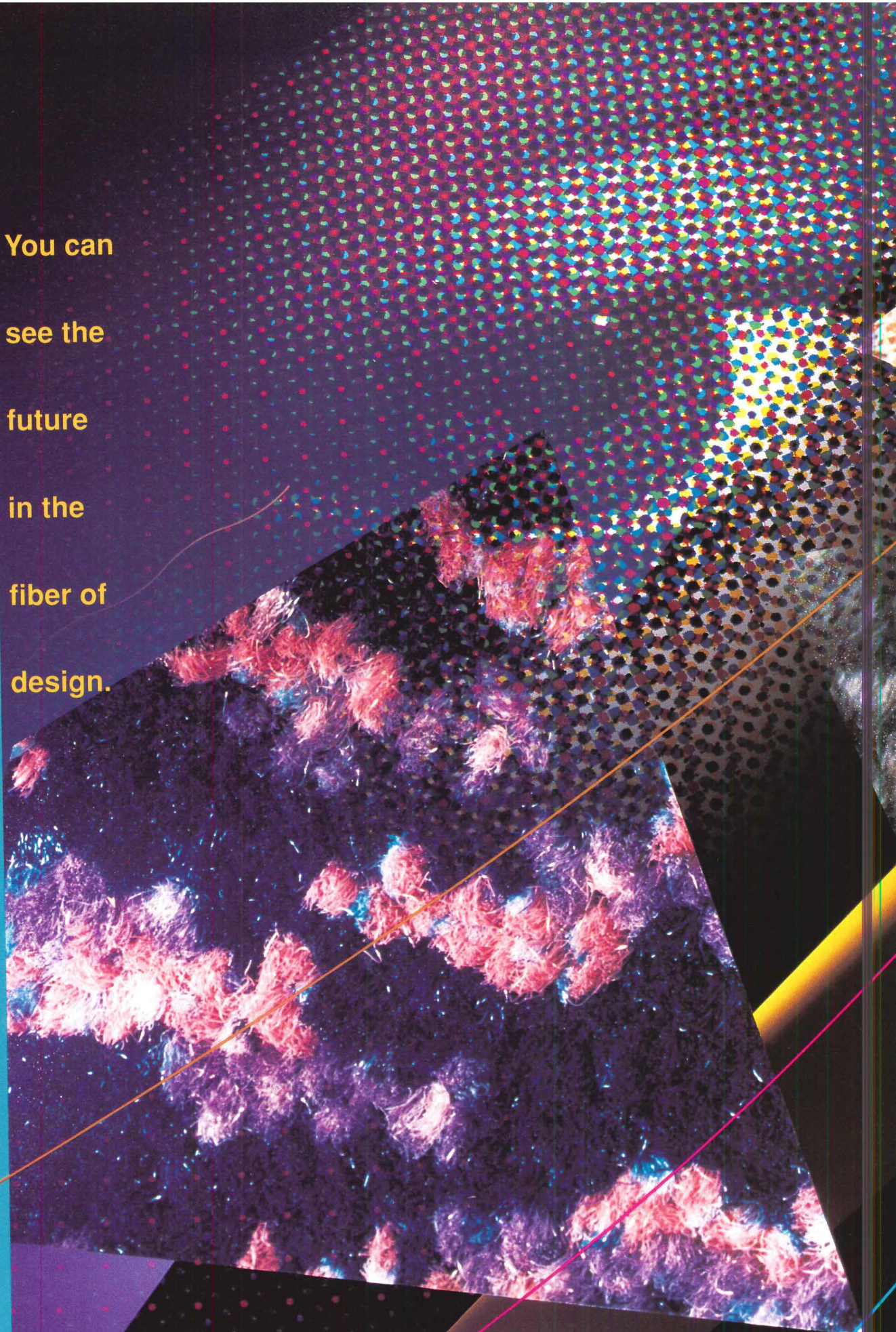
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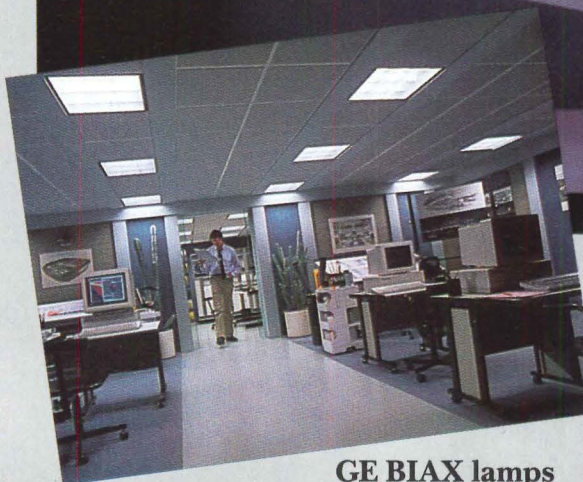
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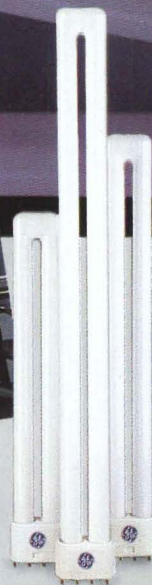
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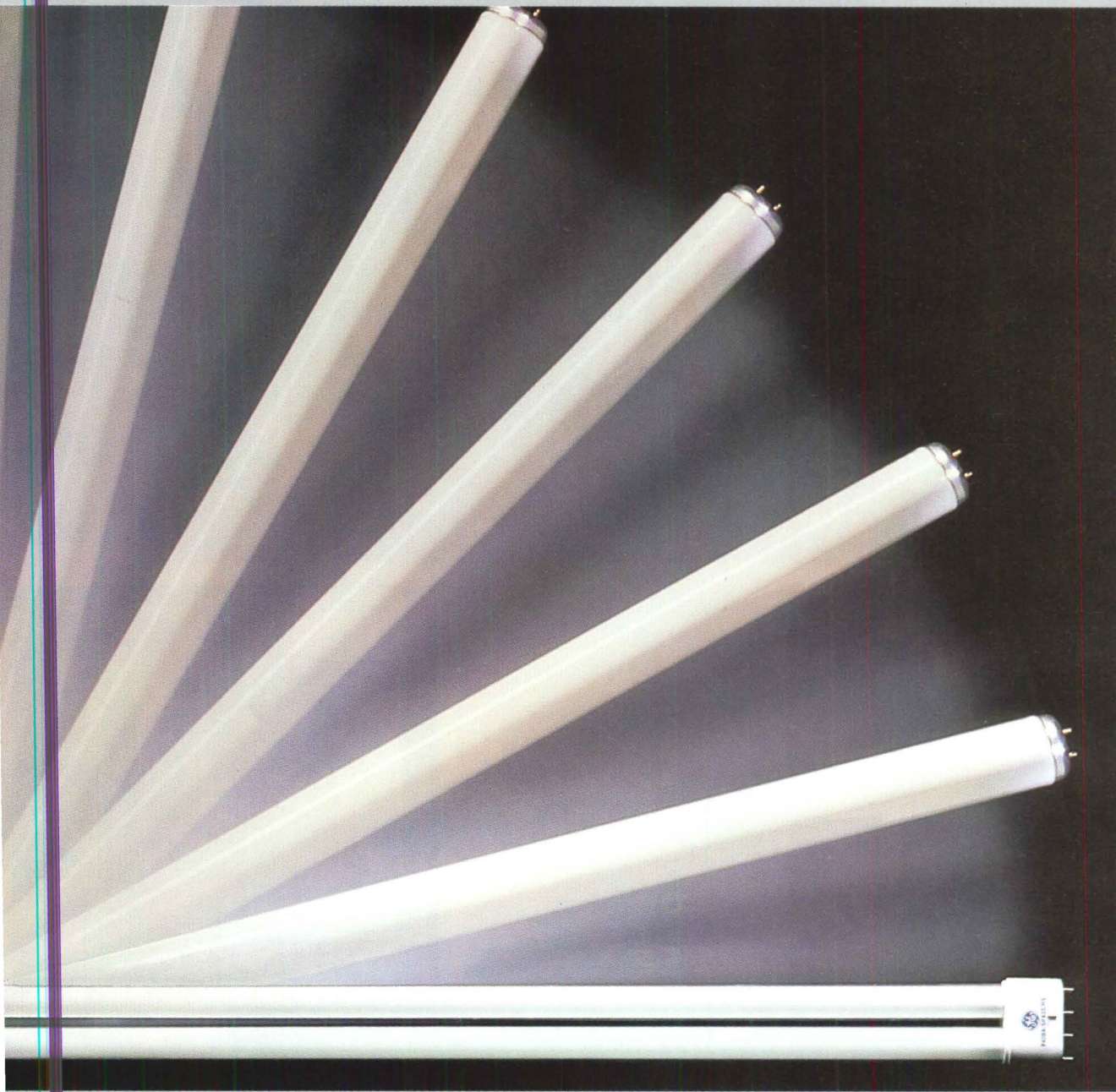
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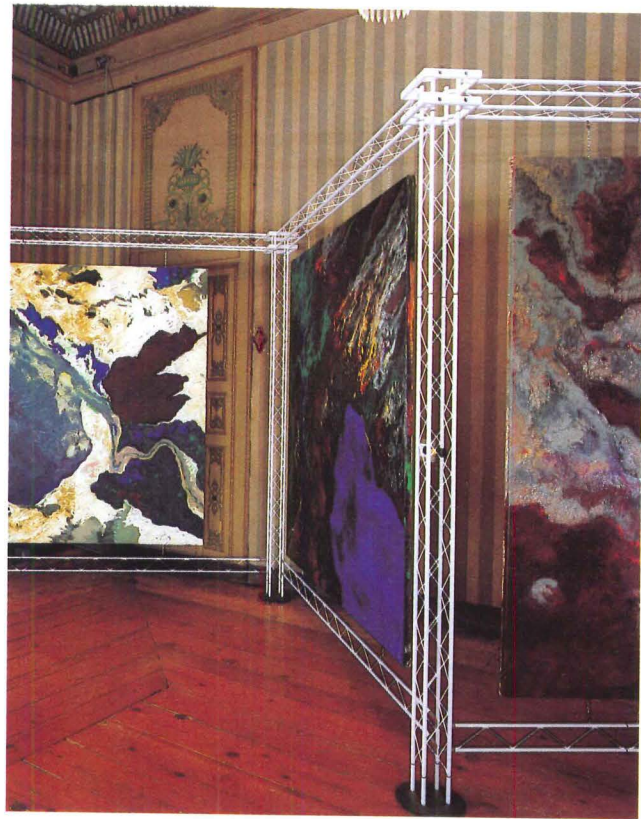
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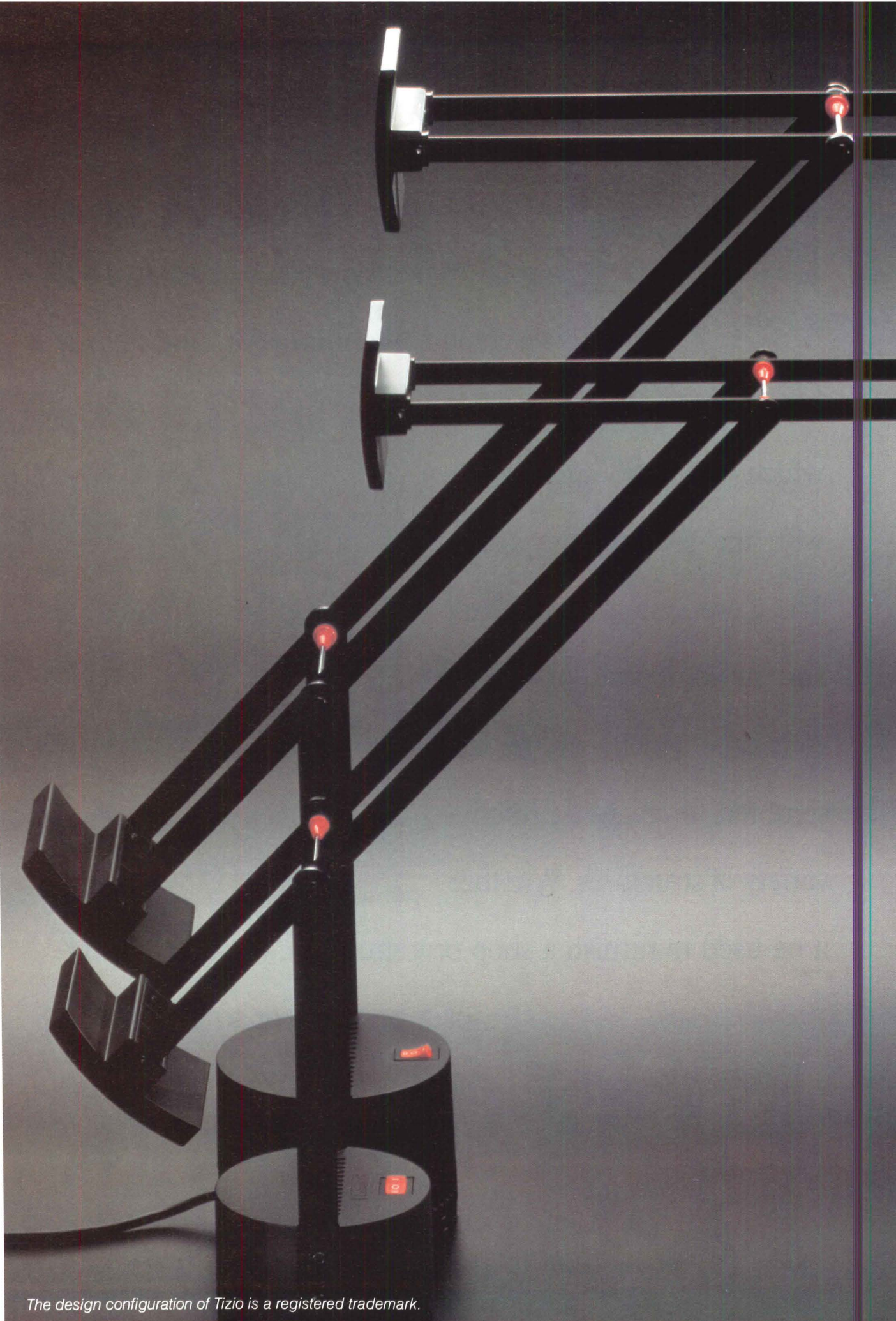
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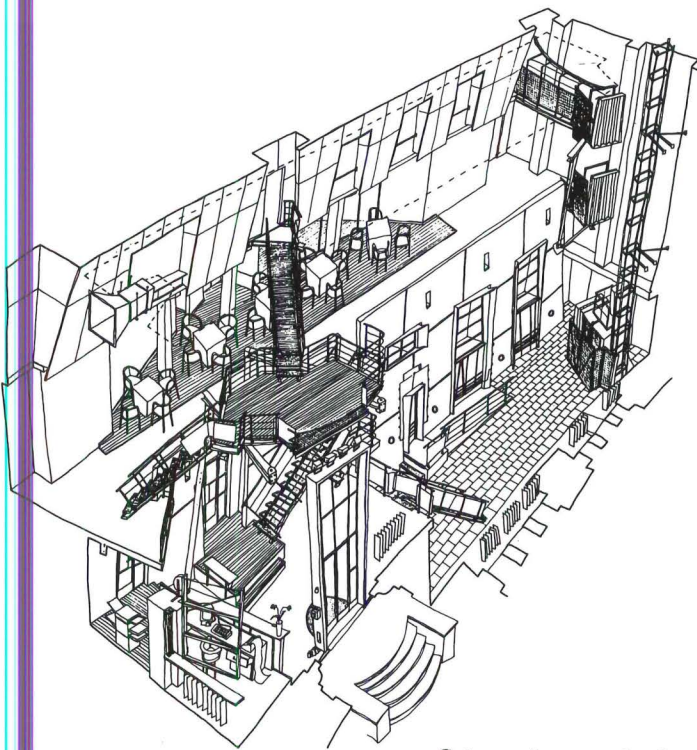
# Interior Design

## Interior Design

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Selected Detail	136
Perspectives	137
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In today's pluralistic climate, the best a professional journal can do

is uphold certain standards.



*Cutaway Axonometric of Metropolis Studios Ltd., London.*

Commitment to quality is particularly important in the face of architecture's increasing use as a promotional tool and the consequent rise of kitsch alongside the profit-driven degradation of building standards. The dangers are even more present when it comes to interiors, because their often limited scope and lifespan tend to encourage experimentation.

In keeping with this editorial course, the lineup of projects in this issue – though diverse in program, conviction, and appearance – share fundamental qualities. These include refinement of proportion and form; sensitive use of materials, color, and finish; poetry of light, and conscientious construction. Along with broader social and political considerations – not always applicable to interiors – it is on these, rather than any exclusive architectural doctrine, that it is meaningful to take a stand. **Ziva Freiman** ■



## Within a Hallowed Shell

Frank Israel has built a new design facility inside structures that were occupied for decades by the Eames studio.

Charles and Ray Eames worked in Venice long before it was fashionable. When the time came to recycle the old industrial buildings they had adapted for their studio, the firm of Bright & Associates, identity and design consultants, took up the challenge and commissioned Franklin D. Israel Design Associates to make the conversion.

Typically for Venice, the three buildings on the site vary in shape and color, and they have little in common with the other modest-scaled structures around the six-way intersection that they face. It happens that these buildings are visible, though some blocks away, from the Gehry-designed offices of the Chiat/Day/Mojo advertising agency, of which Bright is a subsidiary.

The long-span space of the largest building here particularly appealed to Bright, which had been crowded into makeshift offices. They did not, however, want the kind of ad hoc, Minimal-intervention interior found in so many similar recycled structures in the Los Angeles area. For their staff and for visiting corporate clients, they wanted some deliberate spatial definition and refinement of detail. What Israel has done is to set new architectural elements within the old shells, leaving the original fabric visible as counterpoint.

To adapt the buildings, the architect had to upgrade the structures seismically. In the large building, the structural system of wood trusses resting on masonry walls was reinforced with 6 x 6 wood posts under the truss ends and lateral bracing embedded in several new transverse partitions.

Access to the complex involved some irony. The street front of the main structure had a pediment-like roofline (following the trusses), with  
*(continued on page 98)*

.....  
*Known to many as "901" for the address that Charles Eames painted on it (1), the street-corner complex includes three diverse buildings. Frank Israel has added a sheet metal "marquee" to the old gabled façade, which was scarred by various alterations. The actual entry is through the building to the right (2), where a new canopy hangs on a wall that Eames painted white to capture the eucalyptus shadows. Inside the two-story entry structure is a skylighted court (3) lined with carefully crafted integrally-colored stucco. Offices around this court on two levels house the firm's business department.*











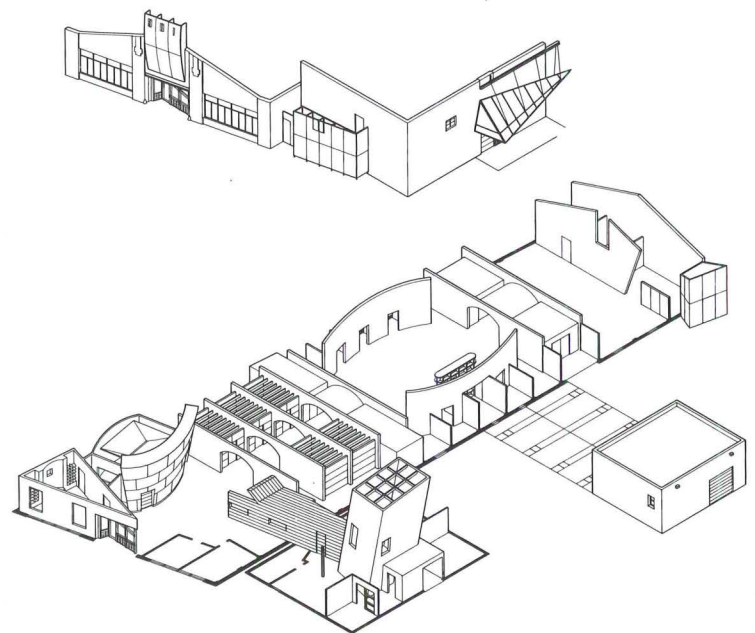
*(continued from page 96)*

an entry niche symmetrically below it. In Venice, however, nobody arrives at a business location by sidewalk; the yard space along the other street had become the essential parking place, hence the real approach. Israel has developed an entry sequence that accepts the indirectness and plays upon it to separate this interior from the outer world.

The route into the complex begins with a conspicuous, angular canopy leading to a door in a two-story auxiliary structure. Inside this door, we are introduced to an entry court, taller than the building front outside, with its geometry skewed both horizontally and vertically. A skylight roof and punctured openings in its yellow stuccoed walls suggest that we are back outside. From this disorienting space a tunnel-like link – not just a passage, but a self-contained object – leads into a “plaza,” bounded by positive volumes and façades.

The most distinctive of these flanking elements is the inverted cone of the main conference room, directly ahead as one passes through the tunnel. Looking like a freestanding form, this construction is really a false front (isometric, right).

*(continued on page 100)*



EXPLODED ISOMETRIC



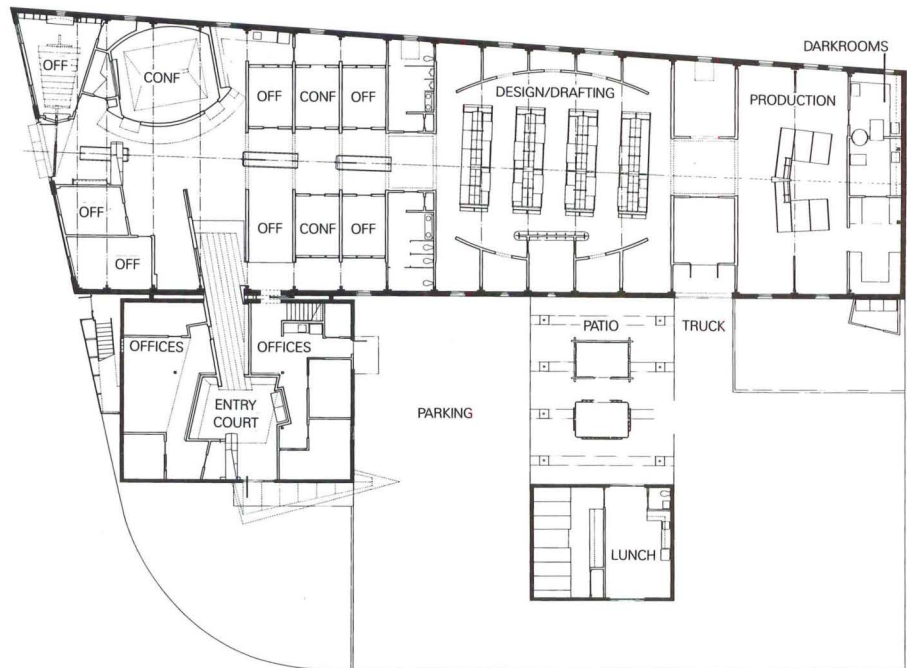
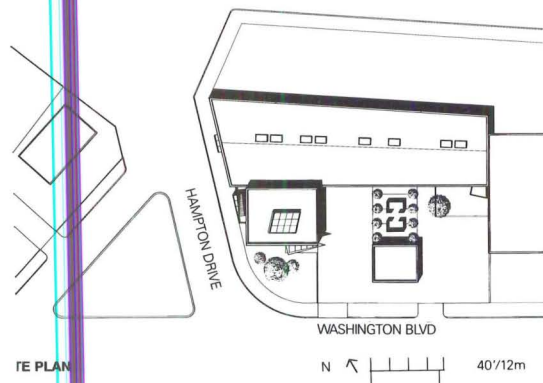


Grant Mudford

2

The drawings show the three structures that make up the Bright complex. The smallest one houses an employee lunch room, opening onto a patio. The main entrance is into the other square block, where the visitor passes through a skylighted court (preceding page), then through a link crafted of bondervized sheet metal (1) into a more closely defined space (2), dominated by the conical plywood wall of the main conference room; chairs seen here are new versions of the old Eames "potato chip." Arches leading to the design studios are visible in both photos.

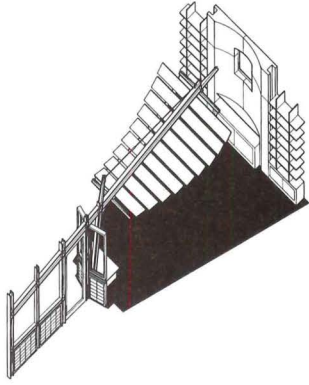
99



FIRST FLOOR PLAN

N





AXONOMETRIC, BRIGHT PRIVATE OFFICE



1



2

(continued from page 98)

Just off this plaza, occupying an angular corner with generous exterior exposure, is the office of the firm's head, Keith Bright. Modest in scale, this room is individualized by a variety of devices. A suspended canopy and a window of stacked glass are tied into the steel framing that provides earthquake reinforcing at this end of the structure.

As one proceeds into the design and production areas, where the firm's creative work is accomplished, architectural forms become calmer and more regular. The series of parallel partitions is necessarily respectful of the original structural geometry here, since most of them contain lateral bracing aligned with the trusses above. To form a

(continued on page 102)

*In Keith Bright's private office, a canopy of plywood panels extends from above the desk (1) to a windowed angle opposite (3), suspended from steel seismic bracing (drawing, top). The niche of dark prefinished plywood behind the desk is pierced by a window that frames a view of a Gehry house a few blocks away. The window opposite the desk (2) admits light through stacked strips of glass. The passage into the design studios (4) is framed by arches piercing partitions that provide earthquake reinforcement.*



3









1

102

*(continued from page 100)*

central passage through them, Israel has used segmentally arched openings, abstract in shape but traditional in their associations. The first few arches define an arcade, along which are private offices and conference rooms. Beyond these is a room with 24 design desks, given a sense of unity by curved perimeter partitions, but divided and individualized by wood cabinetry. In the production area at the end of the sequence, a yellow-painted wall recalls the skylighted entry court.

All in all, Frank Israel has generated a remarkable variety of memorable forms within this old shell, uninhibited by any overarching ideal of consistency. Details are thoughtful but as varied as the materials used here. What has been created inside these walls is a distilled re-creation of the variegated, incident-studded townscape of Venice outside. **John Morris Dixon**

*The design/drafting area (1) is divided into workstations by meticulously simple cabinetwork; tall bookshelves to one side are yet to be filled. A conference room between partitions (2) has wood-framed glazing. In the production area (3) a central desk is surmounted by stacked glass.*



2

**Project:** Bright & Associates, Venice, California.

**Architects:** Franklin D. Israel Design Associates, Beverly Hills, Calif. (Frank D. Israel, principal in charge of design; Kevin O'Brien, project architect; Jeff Chusid, project manager; Stephen Shortridge, Mitchell DeJarnet, Andre Binkur, Pong Kawdee, design team).

**Client:** Bright & Associates.

**Site:** The former Charles and Ray Eames studio, 14,600 sq ft, gross.

**Program:** rehabilitation and seismic upgrading for design offices.

**Structural system:** brick bearing walls, wood frame and wood trusses.

**Major materials:** plywood, sheet metal, cement plaster, exposed wood, drywall (see *Building Materials*, p. 186).

**Mechanical system:** five 6<sup>1</sup>/<sub>4</sub>" ton gas rooftop heating and a/c units.

**Consultants:** Davis/Fejes Design and Structural Engineering, structural; Mel Bilow & Associates, mechanical; Saul Goldin, lighting; C & W Electric, electrical.

**General contractor:** J.A. Stewart.

**Costs:** withheld at client's request.







## A Moss Garden

Combining the minimal and the intricate, designer Michael Kalil has completed a unique penthouse.

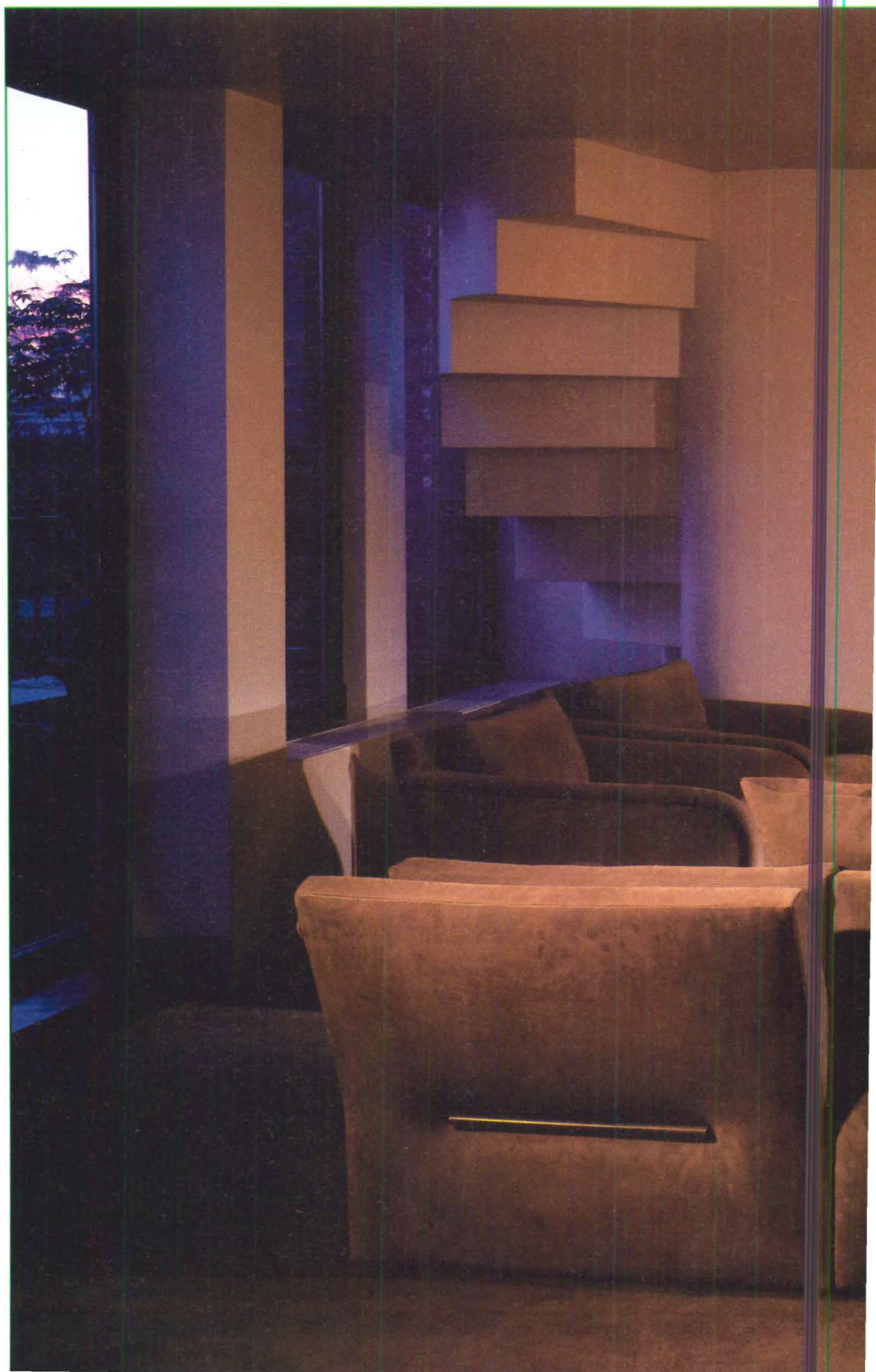
Can lighting generate an entire apartment design? Perhaps not in every respect, but it can definitely form the basis for a rich set of conditions within the spaces. Seldom has *P/A* shown the same apartment twice, but when we first featured a few glimpses of the Kramer penthouse (September 1987, cover and p. 136), it was unfinished and unfurnished. It was, and still is, a powerful minimal expression by Michael Kalil for a rare client who appreciates an environment embodying only the bare essentials.

Kalil describes what is perhaps the main thrust of the design as "... how to light a space by using the space next to the space you want to light; taking the principle of the sun coming through the window, and trying to adapt that principle using regular incandescent lighting. In most cases, nothing is showing; the light comes through a thing, so the walls become windows in a way." Because the apartment has exposures to all four directions, there is ample natural light as well.

In fact, the apartment illumination, done with lighting designer Peter Barna, takes advantage of natural as well as artificial effects. The upper-level guest room (not shown in the plan) is an uncomplicated rectangle with an adjoining bath, but it employs some of the most intriguing uses of daylight (as well as hidden artificial light sources). For instance, a prismatic lens at the top of the stair catches the sunlight and broadcasts a rainbow pattern on different parts of the stair and wall. In another location, sunlight streaming into the window is passed through a horizontal grid, forming dramatic patterns on the wall that change in the course of the day, in both position and hue.

On the main living level, artificial lighting is employed to create several interesting effects. Using 600-watt quartz sources, Barna was able to position lamps in ways that produce the appearance of projected beams on distant surfaces. Probably the most striking example is the ceiling-concealed downlights, which strike concave mirrored surfaces in the tops of the three pivoting ebony panels that define the boundary, or lack of it, between the circulation corridor and the living area. A rectangular bar of light reflects onto the

*(continued on page 108)*







2



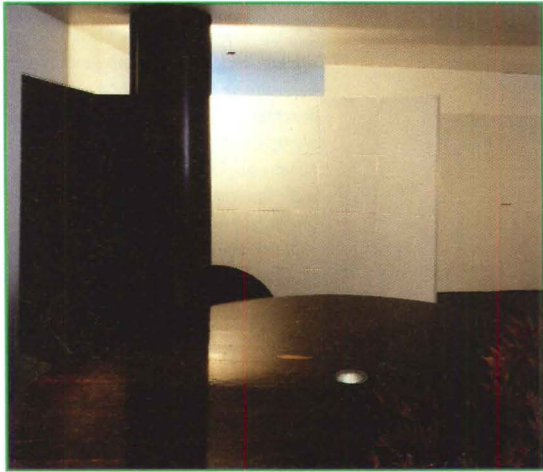
3

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*Ebony screen segments pivot to close off the living room from the entry corridor or to open up the space completely (1). Closed, they form an ebony-lined passage to the dining room and kitchen beyond (2). As with most of the light sources, the one in the upper corner of the living room is not visible directly. Next to the fireplace, a graceful spiral stair connects the guest room to the main areas (3).*





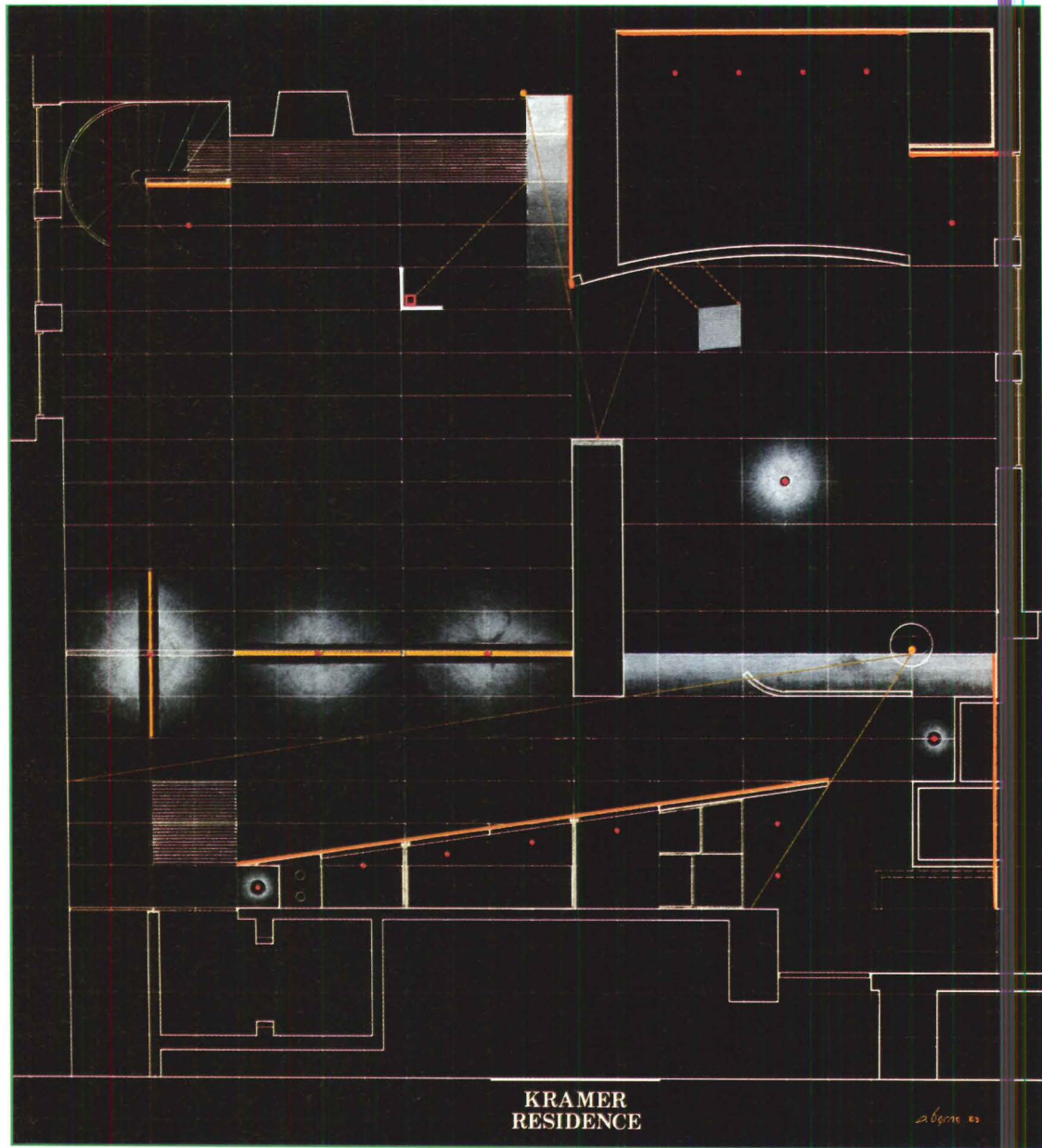


1



2

The dining room is lighted indirectly from sources behind a column of light in the center of the table (1). The nearby kitchen is beautifully and minimally detailed (2). Kalil designed the upper guest room with the effects of natural light as part of the concept. Strongly horizontal window grilles cast dramatic shadows on white walls and doors in the afternoon sunlight (3). Custom-designed corner ceiling fixtures and other concealed sources take over from natural light when needed.



PRIMARY FLOOR PLAN

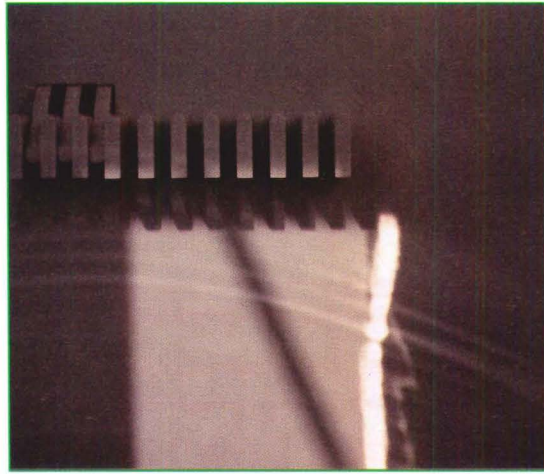








1



2

(continued from page 104)

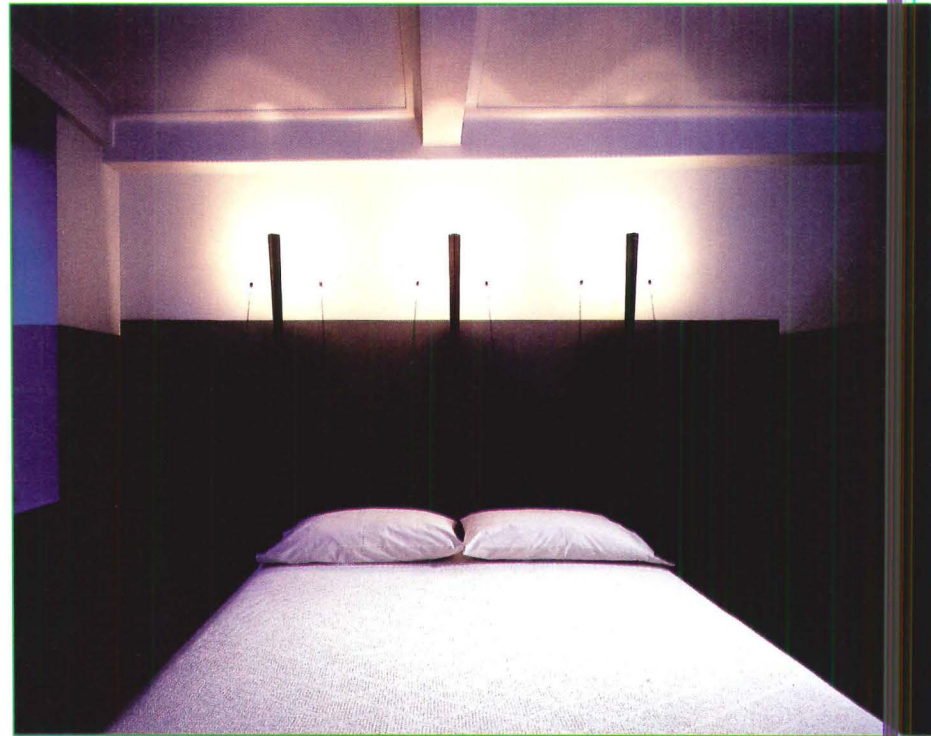
ceiling, pivoting along with each panel as it is rotated.

Michael Kalil's design moves are no less striking, because the visual simplicity that results appears to have been accomplished so effortlessly. Consistent with his sculpture, weaving, and other product design, he sought a contemplative expression here. The custom-woven carpet is intended to evoke an image of a mossy garden, the charcoal furnishings, outcroppings of rock. While this subtlety may or may not be noticed by the casual observer, the immaculate detail and execution of every piece of the apartment is impossible to overlook.

The ebony wood panels in the living/entry/corridor area, among the first things the visitor sees, are impressive in themselves, but the fact that they are center-pivoting and contain lighting reflector devices makes them even more fascinating. The use of nearly invisible downlights in the otherwise uninterrupted ceiling and uplights and speakers beneath ebony grilles in the living room floor are typical of the care lavished on each aspect; everything is handled with the same cool refinement. The fireplace simply occurs in a clean cutout in the living room wall, untrimmed closet doors and windows and minimally articulated fixtures and cabinetry continue the aesthetic.

Where any elaboration exists, as in the shallow arch, grilles, and ribbed closet doors in the guest room, or the wavy tube forms in several locations, the elements are so coolly elegant that they calm, rather than stimulate. Kalil's earlier NASA studies for human habitats in space led him to certain curve configurations derived from harmonics, which are recalled in the Kramer residence.

The bathrooms are exercises in product design and innovative materials uses. For instance, the sink in the guest bath is a simple stone pillar, with a carved bowl and minimal hardware. The tub in the main bath is the type used for physical therapy, while all the shower plumbing/hardware is contained in a stepped, freestanding wall segment of tile and stainless steel. In the second lower-floor bath, every surface is white Corian. For the sink, Kalil located a fabricator who would bend the



3

material into a gently curved trough; water is delivered through the wavy towel bar.

There are many terms that could be applied to the work of Michael Kalil. Few are adequate individually, but one that might be appropriate is "gentle," since some of the descriptions above may imply the cerebral without the warmth. While the work definitely reflects considerable intellectual content, qualities of genuine humanity have not been omitted. **Jim Murphy** ■

As shown in P/A's first look at the apartment, the primary lower-floor bath (1) gets its character from the therapy-type tub and the striking shower. The area given to plumbing in the shower retains the same minimalist character as the rest of the apartment, occupying only the tile and stainless steel partial wall. Even where a lighting fixture can be seen, as in the master bedroom (3), the source cannot. In the secondary lower-floor bath, Kalil has encased the entire room in Corian, and included a custom-formed sink and even a shower water outlet (2) of the same material. Water arrives and is released from the tubular steel towel holder on the sink (4).

**Project:** Kramer penthouse, New York.

**Designers:** Kalil Studio, New York. (Michael Kalil, designer; Michael Krieger, Dale Goncher, design team).

**Program:** 3700-sq-ft penthouse floor of a prewar building.

**Major materials:** ebony wood, Corian.

**Consultants:** Light & Space (Peter Barna), lighting.

**Contractors:** Van Hyning Construction (Jay Herbert), Slivno Painting (Mhio Vuletic, painter).

**Photos:** Elliott Kaufman.







## Eclectic Expressionism

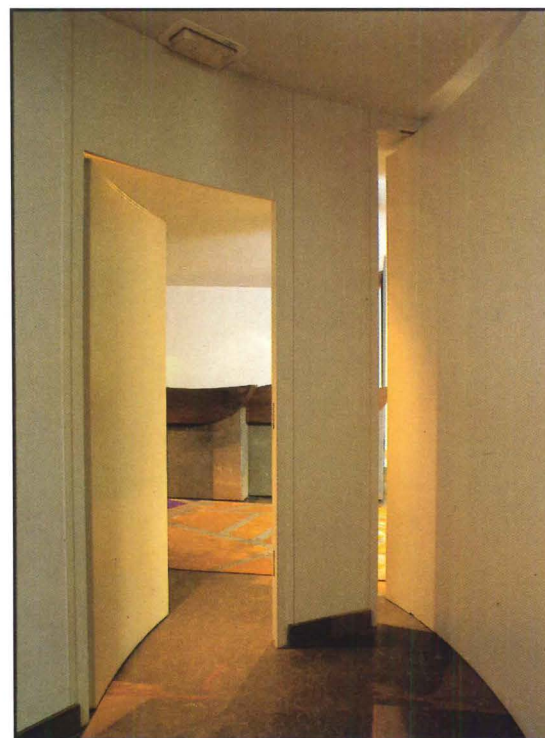
Marie-Christine Dorner uses strong colors

and dynamic shapes to enliven this old Paris hotel.

During the past decade, French design has achieved an eminence one would not have predicted earlier. Works by designers such as Andrée Putman, Philippe Starck, Jean-Michel Wilmotte and, lately, the young Marie-Christine Dorner are in demand all over the world. One principal reason for the renaissance, and renaissance it is, has specifically to do with France; with President Mitterrand's drive, not only to nurture design among other manifestations of culture, but to promote it for the industrial good of the country. Government agencies, notably La Ministère de la Culture, do a great deal to support designers by various means. The importance of this cannot be underestimated, for it has permitted a climate in which creativity and experimentation can flourish.

Marie-Christine Dorner is one of a new generation that has emerged into this age of eclecticism; hard on the heels of those who, like Putman and Starck, had made the presence of French design felt internationally. She has been hailed as the darling of French design, as the new Charlotte Perriand. Her work – which now extends across a broad field, including the design of furniture, lighting equipment, carpets, and porcelain, as well as interiors – has been the subject of countless articles and a number of important exhibits. She says that her perspective is not that of an architect, but belongs rather to Les Arts Decoratifs, and this is patently true.

Dorner has received most attention recently for her design of La Villa, a small hotel in Saint Germain des Près in Paris. The area is the historic province of Paris's cultural community: of Gertrude Stein, Ernest Hemingway, and Samuel Beckett. Over the years, however, it has become a center for tourism. The commission was to remodel an old and run-down building (formerly the Hotel d'Isly) and to instill in it something of a contemporary spirit. The scheme is modest by comparison with other recent excursions into hotel design, by Putman and Starck in New York for example; the budget for La Villa was limited, and the fabric of the building, inside as well as out, could not be altered. What is remarkable is the way Dorner has made a little go a very long way.

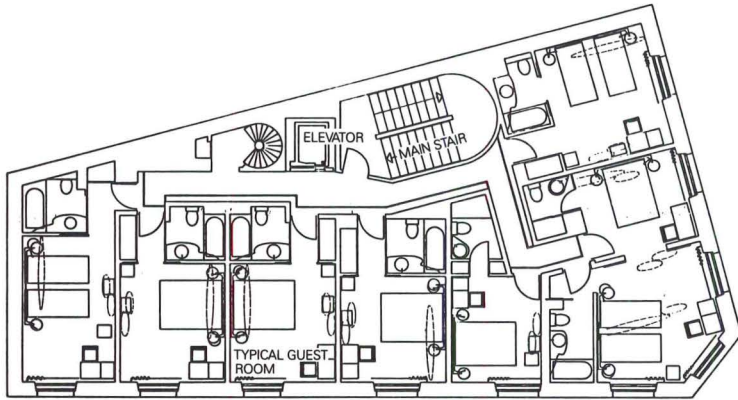


The entrance to La Villa Hotel is discreetly marked by this finely detailed metal and glass canopy (1). Little of the building's exterior could be altered in this historic section of Paris. The interior lobby features a sweeping wall that leads guests from the door to the reception desk to the elevator. Part of this wall swings back to give access to a breakfast bar (2). The reception desk, with its undulating top, and the privacy screen, with its sliced metal surface, both recall the curve of the lobby wall. The intense color of the lobby's leather furniture is a prelude to the colors used throughout (3).

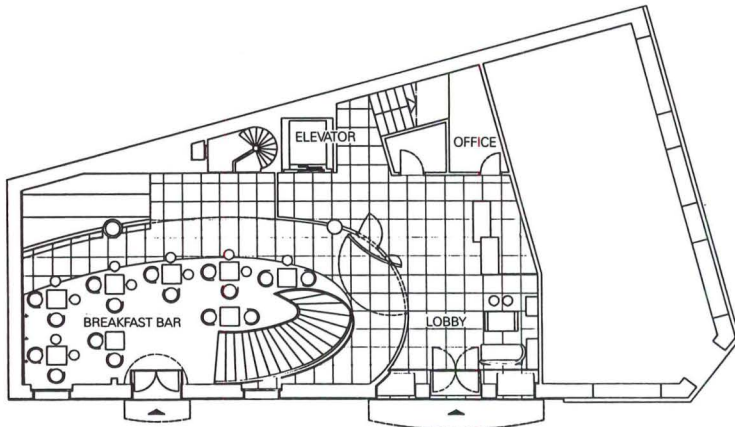








TYPICAL UPPER FLOOR PLAN



FIRST FLOOR PLAN

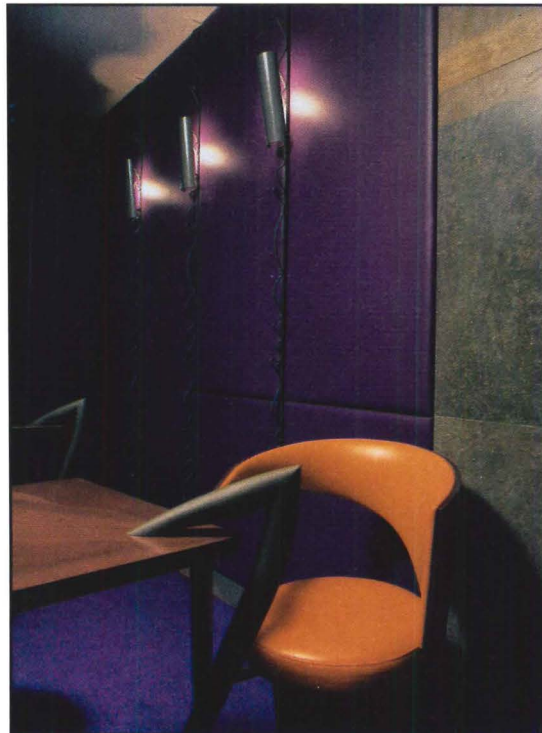
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The hotel occupies an irregular site, with only two sides exposed, so the arrangement of its rooms and location of its core was essentially established. Within those confines, however, Dorner has created a sense of dynamism. This is evident in the breakfast bar where, for example, lighting fixtures and furniture appear to be almost unbalanced, about to tip over or fall down (4). The real tour-de-force here is the stairway down to the basement level, with its vortex shape and its metal rails that whip about at odd angles (5).

Despite the often abstract quality of her work, she approaches her projects with considerable empathy. In the process of formulating a design for La Villa, she visited other hotels in the area. "Somehow, I found them dusty. I decided to do something fresh and different, a comfortable hotel with color. I imagined the rooms as nests, colorful and sweet, refuges for people in a strange city."

The hotel is a small one. There are 35 rooms on four floors, a bar for clients and the public, and a small lobby. Externally, Dorner's touch has been discreet, and the façade blends into the old street of tall white-stuccoed buildings. It is easy to miss the hotel's fine metal canopy and logo.

Dorner's work is not only sober, but informed by a poetic vision that has manifested itself in various ways as her career has progressed. At La Villa, it is transmitted through lines that undulate or appear to be in flight and through aerodynamically inspired forms that recall the 1950s. The poetry here also comes through color. In the guest rooms, for example, you emerge from shadowy corridors into luminous spaces with ceilings covered in colored taffeta; the color is continued in







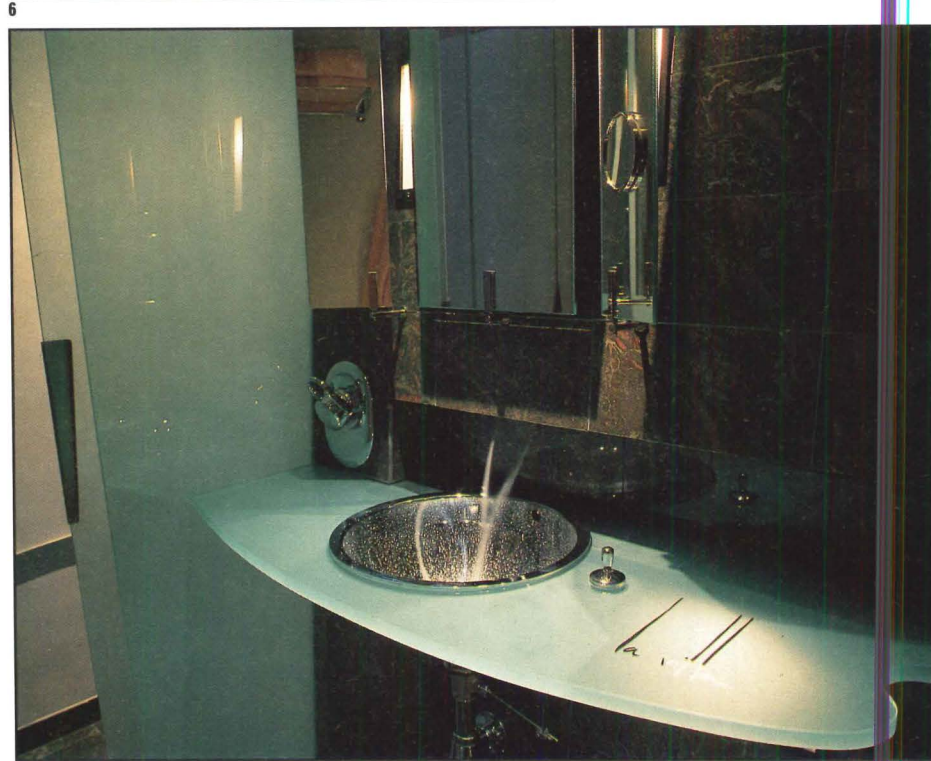


the long curtains that cover the windows. Her use of color is often astonishing; she has in one instance used red – and what a red – that glows like Japanese lacquer. Downstairs, in the bar, colors are predominantly purple and saffron with other flashes of color in the scarlet sofas in the lobby.

Such use of color evinces Dorner's strong sense of the dynamic, which is present in other ways. In the bar, which opens off the lobby, drama is lent by the powerful asymmetry of a staircase that swirls down into the basement. Subliminally disturbing are the elliptical chairs and bar tables, whose wood tops are awkwardly suspended off a bent and angled metal stilt. Dynamism is reinforced by detailing: The palette-shaped doorplates that are reminiscent of Arp's work; a reception desk that undulates like a wave; sinuous suspended lights in bedrooms that leave cloud-like impressions on the colored ceilings. Such expressionism is contained and sharpened by contrast. The bathrooms, for instance, combine sandstone and marble, sand-blasted glass and chrome-plated accessories. Throughout, details intrigue: A waterfall gushes from a hidden tap into a basin; guestroom numbers are projected onto the corridor carpet by spotlights; natural daylight in the bar is discreetly heightened by delicate torchlike fixtures.

Nevertheless, there is a paradox here. These rooms are no pretty "nests," nor are they sweet. The drama is too strong for that, and colors, at times, verge on the aggressive. If this is a womblike fantasy, the womb is a severe and frequently disturbing one. Your sense of balance is rattled subconsciously by the deformation of line and form conveyed in a manner reminiscent of Starck's. This is a designer who would like to jolt people's equilibrium, perhaps their complacency. Dorner herself plainly fears standing still and will turn down projects that she feels will take her no further as a designer. There is a morality inherent in her attitude, and her austerity suggests an ambivalence towards the prevailing materialism.

This sensibility is, in part, a product of her background. Now 30 years old, Dorner studied at the École Camonda, the school of interior design in Paris. She worked from her second until the fifth and final year for one of her tutors, Patrick Rubin of Canal. On leaving school, she went to work for a year in the office of Jean-Michel Wilmotte, who at once made her responsible for several projects. Eventually, after a year and a half, feeling the need to look outside the close confines of her own culture, she set off on a round-the-world tour to Asia and, significantly for her, to Tokyo. Intrigued by the city and by Japan, she decided to stay. Looking for work, she went to see Teruo Kurosaki, the proprietor of Idée, a company that then made reproductions of 1920s furniture (and now sells designs by Shiro Kuramata and Starck). Coincidentally, at the time of Dorner's visit, Kurosaki had been planning a new and contemporary line of furniture and, evidently impressed by the young designer, asked her to con-



The guest rooms maintain the dynamism of the lobby. The bathroom features a sand-blasted sink and curving counter (6). The guest room doors, whose plate shapes of Jean Arp, have numbers that are projected onto the corridor carpet (7). The rooms themselves have suspended free form ceiling fixtures of lightweight plaster, vividly colored walls and drapes, and a few, minimally detailed pieces of furniture (8, 9). Dorner conceived of these rooms as "nests, colorful and sweet."

tribute. The result was a collection of 16 pieces of furniture, whose sense of barely maintained equilibrium and just-contained forces is seen later at La Villa. Returning to Paris, Dorner started her own practice in July 1987.

Despite the influences evident in her work, Dorner says she has no master. "The influences are so diverse. I admire a number of people: Kuramata, Toyo Ito, Starck, and Nouvel; but also Hans Hollein. On the other hand, I have strong memories of traveling in Asia, of villages with simple plain houses. One is always being asked to justify one's design, and one does not necessarily know why one does something in a certain way. One draws on the subconscious; one has to have the courage to admit this. The nature of design now is eclectic." **Penny McGuire**

*The author is an architecture and design journalist and critic living in France.*

**Project:** La Villa Hotel, Paris  
**Interior designer:** Marie-Christine Dorner, Paris.  
**Building architect:** Jean-André Dorel, Paris.  
**Client:** La Villa S.A.  
**Program:** renovation of a 1750s hotel containing 31 rooms and 4 suites for a total of 13,000 square feet on five floors.  
**Structural system:** existing concrete structure.  
**Major materials:** metal rails, steel screens, leather furniture, sand-blasted glass washbasins, taffeta ceilings.

**Photos:** R. Cesar/Archipress.







## A Feast for the Eyes

Anthony Greenberg and Widom Wein Cohen have carved a highly complex space

from the bland box of a Beverly Hills office building

Entering the new Maple Drive restaurant in Beverly Hills, you immediately see that its design was the creation of an architect rather than an interior designer. The complex spatial relationships rather than the direct character of the restaurant's decor dominate your first impression. Set into the ground floor of a standard suburban office building in the commercial sector of the City of Beverly Hills, Maple Drive's design skillfully manipulates levels and volumes within a restricted ceiling height and rigid structural grid to convey a feeling of spaciousness and subdued drama.

Entry to the restaurant off the corner of Maple Drive and Alden Drive leads up a flight of deliberately brutalist concrete stairs inserted into the corner of the red granite and black glass office building. "We wanted to establish a sharp and immediate contrast between the sleek anonymity of the main building and the more pungent character of the new place," explains architect Anthony Greenberg. This contrast continues within the

restaurant, where the ceiling's lighting grid is set off-axis from the main structural grid, creating an obvious visual tension between "old" and "new."

Maple Drive's 9000-square-foot, 180-seat U-shaped floor space is orchestrated into five main sections. A long bar, flanked by banquettes and booths, occupies the entry area, which is raised 18 inches above the main floor level. From the bar a ramp that acts rather like a stairway in a Busby Berkeley musical allows the fashionable clientele to make a wryly dramatic entrance to the main room.

On one side of the main dining room is an oyster bar serving seafood snacks, situated next to the open-fronted kitchen. On the other side is a terrace that was created by moving the office building's main glass wall back and at an angle to the structural frame. A private dining room, accommodating parties of up to 14 people, occupies a small pavilion beside the terrace.

Though sculptures by artists Guy Dill, Eric Orr, and Tony Berlant are scattered throughout the

*The entrance to Maple Drive Restaurant (1) contrasts angled stuccoed walls against the office building's slick granite. The glass wall along the building's ground floor has been recessed to create an outdoor dining terrace. The bar inside the entry (2) was designed, says project designer James Bowen, "as an extroverted space because of its social orientation," and reveals the mix of materials found throughout the restaurant. The gray stucco is left bare or painted a delicate light green, and dark gray carpet contrasts with Yosemite slate flagstones, ranging in color from yellow ochre to black. The bar counters are fronted with wired glass and topped with brushed stainless steel. The ramp that connects the bar to the dining room (3) allows patrons to parade to their tables.*

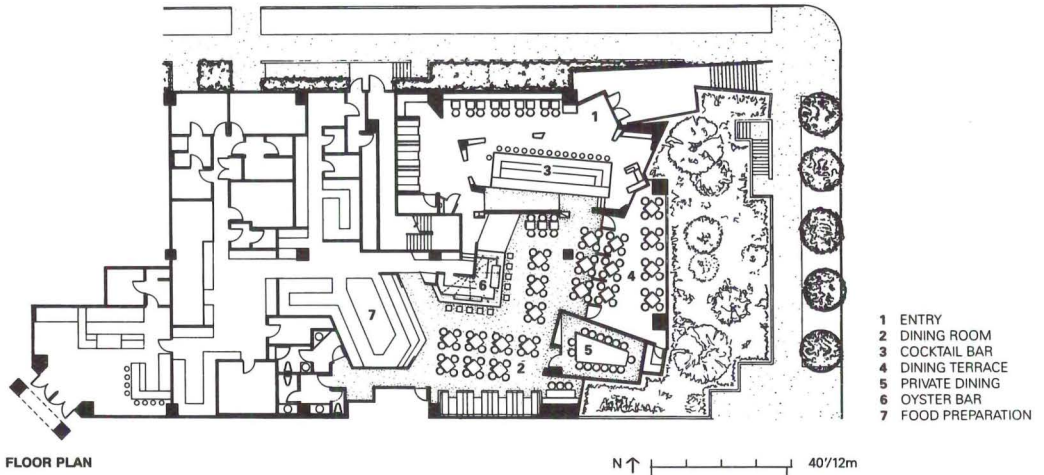








The L-shaped oyster bar (1) features a radiating steel lighting fixture supporting small halogen lamps. The artist/furniture maker, William Tunberg designed the maple-sided private booths and matching inlaid dropleaf dining tables. The private dining room (2) occupies a closed pavilion that defines one side of the outdoor terrace. In the angularity and openness of its plan, the restaurant recalls the informal order and mix of natural materials found in Wright-inspired work in the 1950s.



FLOOR PLAN

**Project:** Maple Drive Restaurant, Beverly Hills, California. **Interiors architects:** L. Anthony Greenberg, Venice, California; Widom Wein Cohen, Santa Monica, California. (L. Anthony Greenberg, principal in charge of design; George Wein, principal in charge of project management; James Bowen, project designer; Christopher V. Ward, project manager; Kirsten Bowen, Greg Valtierra, Larry Dalton, Jorge Ceballos, Roweena Banzuela, Mike McNamara, project team).

**Client:** Main Course Management.

**Program:** 9000-square-foot, 180-seat restaurant with large kitchen, cocktail bar, oyster bar, private dining room, screening room, and terrace.

**Major materials:** red and black granite, gray cement plaster, copper beams, Yosemite slate, maple (see *Building Materials*, p. 186).

**Mechanical system:** two-pipe fan coil system with air-cooled chillers and gas-fired boiler.

**Consultants:** KPFF, structural; I & N Consulting Engineers, mechanical/electrical; Saul Golden & Associates, lighting; Wilfred Malmlund, acoustics; Thomas Gregor, audio; Legacay Signs, signage.

**Costs:** \$2,900,000; \$267 per sq. ft. including kitchen equipment and furnishings.

**Photos:** Roland Bishop.

restaurant, the main visual excitement is created by the varied ceiling treatments. "The challenge was to make a restaurant as large as this as intimate as possible," Greenberg says. "Apart from the spatial maneuvers, our means of achieving this was through the ceiling patterns and the lighting."

In the bar, a dropped, angled ceiling echoes the shape of the counter below. Areas painted black or left bare differentiate sections of the bar ceiling, and a low soffit defines the banquettes beside the front window. Another black-painted dropped soffit follows the trapezoidal ramp, leading into the 12-foot-six-inch ceiling height in the main dining room.

Here the lighting grid becomes a pattern of edge-lighted coffers concealing cold cathode tubes. Over the oyster bar an elaborate sculptural steel fixture projects halogen spots over the L-shaped counter.

The restaurant's detailing is as rich in contrast as its eclectic, "nouvelle California" menu. Bur-

nished stainless steel intersects rusted steel sections in the light fixtures. Rich maple-veneered panels fronting the booths rise from a hard-wearing dark gray carpet. Wired glass plays off against charcoal Naughahyde, and raw chunks of mock-structural stucco thrust up from the sleek slate floor.

Within this interplay of the raw and the cooked, Greenberg has taken care to subdue the unbearable noise levels that plague most fashionable Los Angeles eateries by the generous use of acoustical tile in the coffered ceilings.

Greenberg, who had never before designed a restaurant, admits that "my whole aim was to make architecture out of this awkward space." In this, he has succeeded remarkably well, for it is the spatial qualities of Maple Drive Restaurant that provide the main visual and emotional pleasure.

**Leon Whiteson**

*The author writes about architecture for The Los Angeles Times.*









## Building Double

Ingenious recording studios, by Powell-Tuck, Connor & Orefelt,

emancipate a 1901 London power station from a nearly powerless past.



1

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*The formal presence of the Chiswick Power Station, (1), is reflected in the massive concrete wall (2); recording studios, reception areas, and restaurant/bar are housed behind the wall. Sashed windows in the western elevation provide Metropolis with natural light. A ramp in the basement leads to the maple and steel door of Studio A; Studio B and its accompanying reception area are through the paneled glass door (2).*

**A**t Metropolis Studios in West London, technology – traditionally the driving force in recording studio culture – is at once dethroned and elevated to a rare position of equality with architectural design. As equal partners, technology and design are theoretically and pragmatically meshed.

The brick and stone Edwardian Chiswick Power Station designed by William Curtis Green opened in 1901 to power the London tram system and was rendered obsolete within a decade. With its turbine generating equipment removed, the station remained without permanent use until 1985, when a developer received planning permission to build 19 apartments, a parking garage, and office space within the landmarked shell of Green's power station. In 1986, space allocated by the developer for an unrealized film studio was taken over by Metropolis.

In the same year, Metropolis Studios Ltd. held a limited competition in search of a suitable architect to design a recording studio in the 14,000-

square-foot section of the generating plant. Four firms were asked to produce schemes, and Powell-Tuck, Connor & Orefelt of London won the commission based on their design sensibility – raw surfaces enriched with tactile finishes and eclectic use of materials – and management skills.

With a program requesting five recording studio/mixing rooms, recreation and leisure spaces, a bar/restaurant, office space, and instructions to create the most architecturally and technologically advanced recording studio in Europe, PTCO produced a scheme based on oceanliner design: a hard shell (in the form of a massive, bush-hammered and polished concrete wall) protecting a variety of services and cargo (the studios). Metropolis is designed as a series of boxes within boxes, a building within a building.

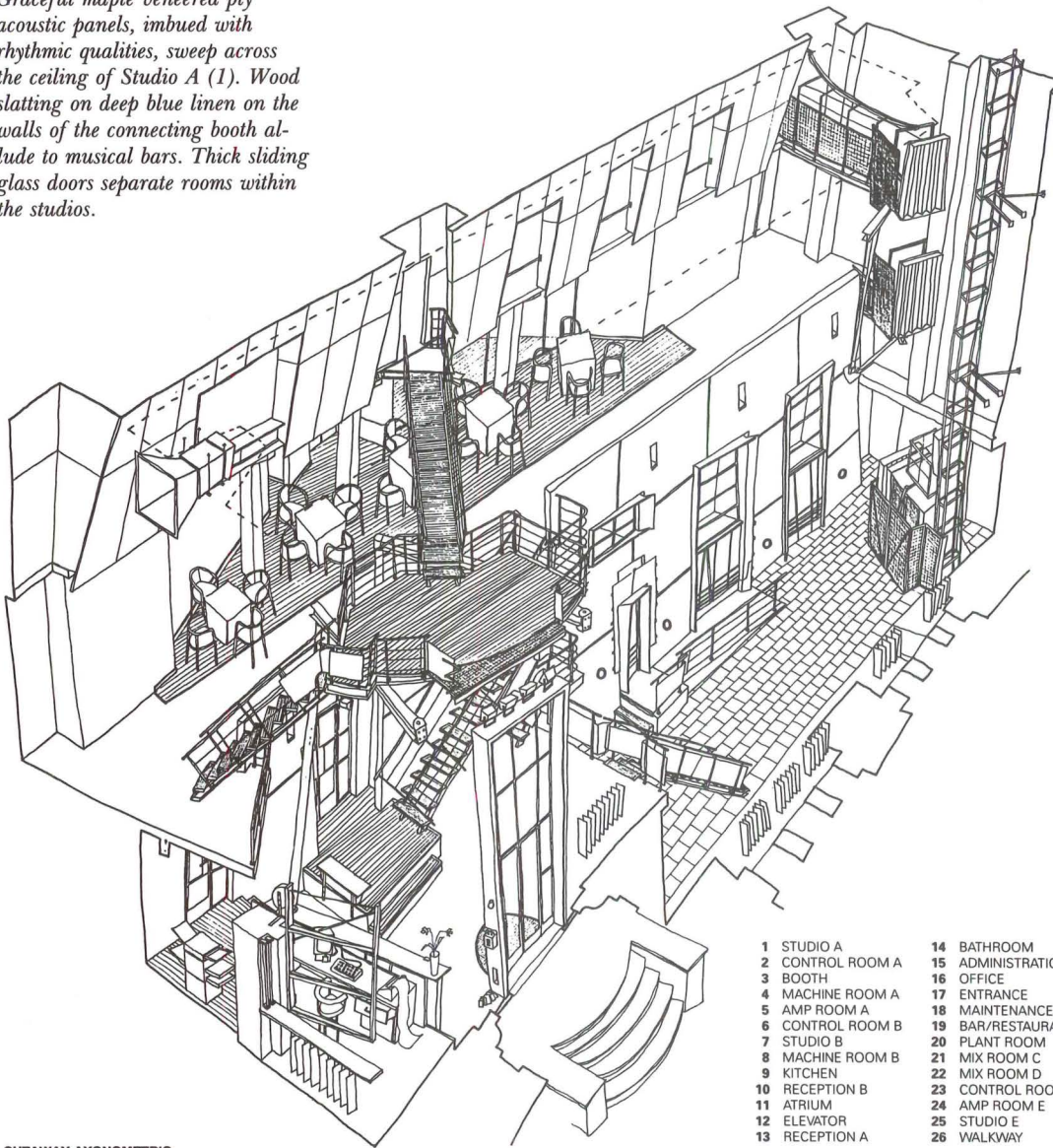
Visitors to Metropolis enter up a short flight of stairs from street level and arrive at a reception desk and office; from there, a four-story atrium explodes to the right in an elongated space parallel







Graceful maple veneered ply acoustic panels, imbued with rhythmic qualities, sweep across the ceiling of Studio A (1). Wood slatting on deep blue linen on the walls of the connecting booth allude to musical bars. Thick sliding glass doors separate rooms within the studios.



CUTAWAY AXONOMETRIC

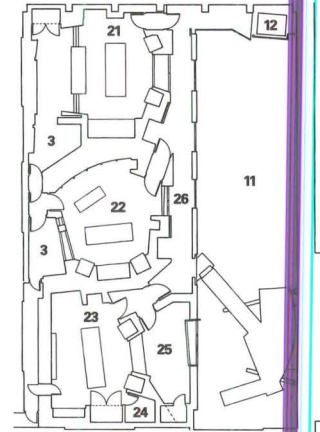
- |                  |                   |
|------------------|-------------------|
| 1 STUDIO A       | 14 BATHROOM       |
| 2 CONTROL ROOM A | 15 ADMINISTRATION |
| 3 BOOTH          | 16 OFFICE         |
| 4 MACHINE ROOM A | 17 ENTRANCE       |
| 5 AMP ROOM A     | 18 MAINTENANCE    |
| 6 CONTROL ROOM B | 19 BAR/RESTAURANT |
| 7 STUDIO B       | 20 PLANT ROOM     |
| 8 MACHINE ROOM B | 21 MIX ROOM C     |
| 9 KITCHEN        | 22 MIX ROOM D     |
| 10 RECEPTION B   | 23 CONTROL ROOM E |
| 11 ATRIUM        | 24 AMP ROOM E     |
| 12 ELEVATOR      | 25 STUDIO E       |
| 13 RECEPTION A   | 26 WALKWAY        |

to the power station's western elevation; stairs, ramps, and landings hover above like a vertical labyrinth suspended in time and motion. The vast atrium space – with Green's towering arched windows – acts as a pocket of light and air, a respectful buffer between the landmarked power station façade and the Metropolis container. The original, elegantly utilitarian masonry and ceramic tile walls of the power station are left untouched, their visual strength a cue for PTCO's insertions: Concrete, wood, and metal link the old with the new in a dynamic performance teetering on the edge of fashionability.

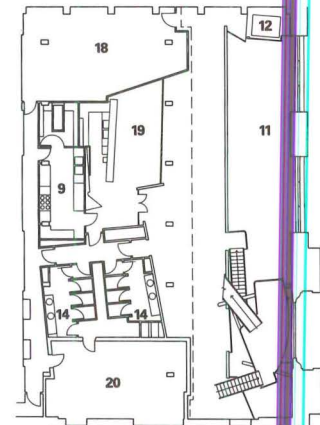
Provocative exterior spaces (interior to Green's building) are architecturally controlled and aligned, while the studio/mixing rooms are, in contrast, about irregular shapes, cascading forms, and diverse volumes. Visual communication between producer and musician(s) – an asset generally lacking in traditional studio design where a single window is the only connection – is here

given priority. Two full-height windows allow for a more democratic relationship between studios and control rooms.

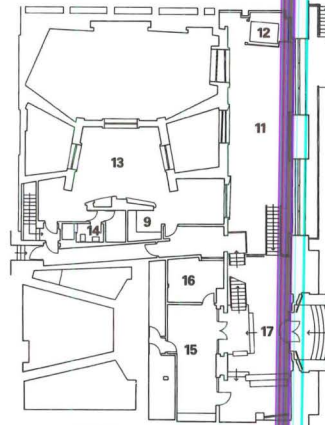
Although there are guidelines for acoustic design, "there are no real rules," explains Carey Taylor, one of three Metropolis directors, "most great-sounding rooms are stumbled upon." A team of Japanese and British acoustician/architects collaborated with PTCO and Metropolis directors to achieve a remarkably sophisticated recording facility. Studio A, for example, has a control room surrounded by three rooms, each with different acoustical characteristics: One has linen quilting on the walls for a "dead" sound ("sound bounces off in a tight, diffused way," explains Taylor); the studio directly in front of the control room is a "live" room (the use of maple veneer walls and acoustic ceiling panels produces a warm quality with a long reverberant sound); and in the third and smallest room, cement plaster walls create a relatively "live" sound for a small space.



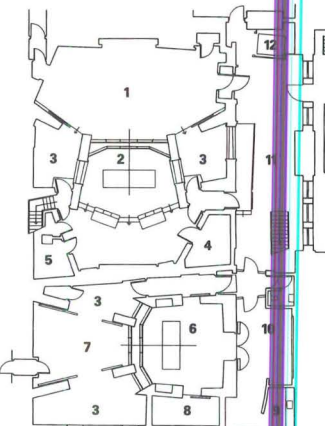
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



BASEMENT











Chris Gascoigne/Arcaid

1



Chris Gascoigne/Arcaid

2

With 19 apartments above and five studio/mixing rooms capable of pumping out 24,000 watts, the confinement of sound had to be seamless. "Isolation" is the term, according to Taylor, for "how you achieve making a huge noise without it leaving the room." At Metropolis a dry construction method is used: Concrete floors float on rubber pads, rubber braces separate studio walls from structural elements behind, and ceilings are suspended from rubber mounts; a heavy-density insulation material fills the resulting spaces in a further effort to confine sound.

With musicians recording up to four months at a time, and all-night sessions common, the residential/industrial nature of Metropolis is precedent-setting not only for future recording studio projects, but also as a lesson in the merits of interior architecture. With Metropolis, PTCO has designed a self-contained, music-making machine with a conscience. **Abby Bussel** ■



Richard Davies

3

**Project:** Metropolis Studios Ltd., Chiswick, London.

**Architects:** Powell-Tuck, Connor & Orefelt, London (Julian Powell-Tuck, Andrew Gollifer, Peter Murray, Angus Sheperd, Gianni Botsford, Paul Reyes, and Nick Butcher, design team).

**Client:** Metropolis Studios Ltd.

**Site:** a 1901 Edwardian power station located on a small lane off Chiswick High Road (a residential section of West London).

**Program:** five recording studios, reception rooms, administrative offices, bar/restaurant, and maintenance areas (built in three phases) in a 14,000-square-foot section of a former power station.

**Structural system:** reinforced concrete construction and foundations independent of existing brick and stone structure.

**Major materials:** bush-hammered and polished aggregate concrete, slate and maple hardwood strip flooring, and maple-ply ceilings in atrium area, maple veneered ply ceiling panels and door and wall slatting, linen fabric on control room walls and ceilings, and cement plaster on studio walls.

**Mechanical system:** gas-fired boilers. **Consultants:** Whitby & Bird, structural and mechanical; Acoustic Design Group, acoustics.

**General contractor:** Kier Wallis Ltd. **Cost:** £2,150,000 (\$3,827,000)





.....  
*A complexity of steel stairways fills the northern end of the atrium space (1) and a rubber-treaded ramp leads to third floor studios (2). Here the concrete wall creates a second floor balcony, where the 24-hour restaurant/bar is housed; meant as a gathering place for musicians, producers, journalists, and others with business at Metropolis, it is a restful oasis in the city-like environment of the complex (3). A mixture of hard and soft materials in the bar reflect contrasting textures evident throughout the structure (4).*



## Transfigured by Art and Glass

A display structure by Kolatan/MacDonald transforms an apartment

into a panorama of reflected light and art objects.

M Loft, New York

On its most utilitarian level, the aluminum and glass structure that Ayse Sulan Kolatan and William J. MacDonald built in a Manhattan loft is a storage system. In concept, however, its scope is much more ambitious: This is a display case for a collection of Surrealistic photographs and American Indian pottery – an installation that juxtaposes the ideal realm of art with the sphere of daily life.

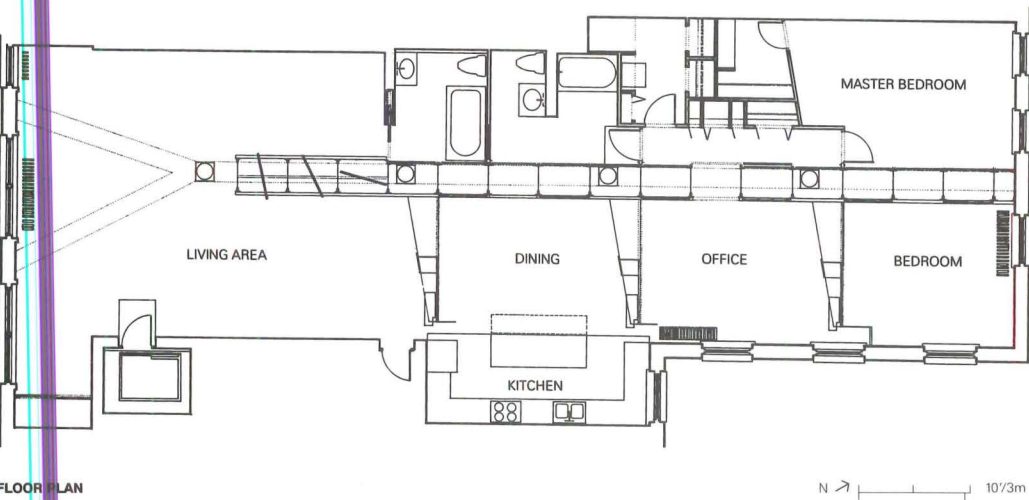
The designers consider this structure a mediation between two temporal rhythms and programs: In the long life cycle of art objects, time seems to unfold slowly, and functional considerations are minimal. On the other hand, the clients' residency in this loft (while more functionally complex), is relatively brief – they will move elsewhere in several years. Analogously, Kolatan & MacDonald's structure is a temporary insertion in the 19th-Century building that houses the loft. It is a three-foot-thick wall of cabinets that separates the apartment's private and public areas, but it can be disassembled and moved with the clients to another household.

Three vitrines extend from this large cabinet and give the apartment the atmosphere of a gallery. Domestic proprieties are not a concern for the two residents – the household doubles as an exhibition area. The wife is an agent for artists and photographers, and changes the work on display for business parties given here, at home.

Kolatan and MacDonald describe the glimmers on the air-hammered aluminum structure as transitory traces of illumination – counterparts to the light patterns that fall on photographic film in a camera or the brush strokes of color that constitute the paintings hung throughout the apartment. Sometimes, the loft is lined with ghost images of the photographs reflected in the vitrines. From other points of view, one can see past the pottery to the photographs beyond, suggesting that these art objects form a network of layered images. When backlit, the rows of pottery appear in silhouette, as if they are organic shapes suspended in mid-air. They seem like illusions descended from the realm of art, images that fleet across the space in which we live and work. **Philip Arcidi**







.....

*Kolatan and MacDonald uncovered the massive pine structure of the loft and bolted the new aluminum storage wall to the original beams so that their load-bearing role is not obscured (1). The sliding white panel and adjacent mirror in the second bedroom (2) imply an ambiguous division between our physical realm and the surreal space in a photograph; the trunk-like column is flanked by the designers' interconnected frames and glazing. When one looks from this room to the vitrines, reflected light turns the glass panels into screens of multiple images (3).*

.....

**Project:** *M Loft, New York.*

**Designers:** *Kolatan/MacDonald Studio, New York (Ayse Sulan Kolatan and William J. MacDonald, principals, James Moustafulos, project assistant).*

**Program:** *residential rehabilitation of the 4th floor (2500 sq ft) of a late 19th-Century former warehouse.*

**Major materials:** *aluminum angles, sheets, and plates; gypsum board partitions and ceilings; bleached and stained oak floor; existing yellow Georgia pine columns and beams. (see Building Materials p. 186)*

**Consultants:** *Ove Arup & Partners (Guy Nordensen, partner), structural.*

**Contractors:** *Michael Harrington, general; Alvin and Jennifer Cooke, metal; Alan Glazer, glass.*

**Photos:** *Michael Moran.*



## Next Year's Model

A model apartment by Smith-Miller + Hawkinson proposes a future for the urban dweller.

"The ordering device," says Henry Smith-Miller, "is a text rather than a grid." Here he is speaking of the model apartment his firm designed for the Police Building, a cooperative apartment building that once housed the New York Police Department. But such an idea is present in all of Smith-Miller + Hawkinson's work, most notably in recent projects such as the North Carolina Museum of Art and in their entry in the LA Arts Park competition (page 143), both of which concentrate on the creation of a narrative or sequence of experiences, not on a graphic plan.

The apartment was meant as a kind of experimental – perhaps futuristic – counterpart to the building's more conventional model apartment. Its text is a tale of tomorrow's urban life, an anticipation of the lifestyle of the building's tenants.

The central component and only major intervention in the space is a large cabinet, aligned with the exterior wall of the apartment. Attached to or inside the cabinet are most of the accoutrements of their tenant's daily life: a bed, closets, shelves, storage pegs, and a dining table. In the study area above, the cabinet is topped with a desk. A large pivot door hides the bed in the day time and screens the bedroom area at night.

Amid the tidy functional logic of the one-piece apartment, the architects have included one "purely willful moment": a television monitor that can be moved manually across the space and up and down, providing access to the apartment's "view" (a more significant view than that offered by the building's three windows, Smith-Miller and Hawkinson argue). A VCR plays Godard's futuristic film *Alphaville* continuously.

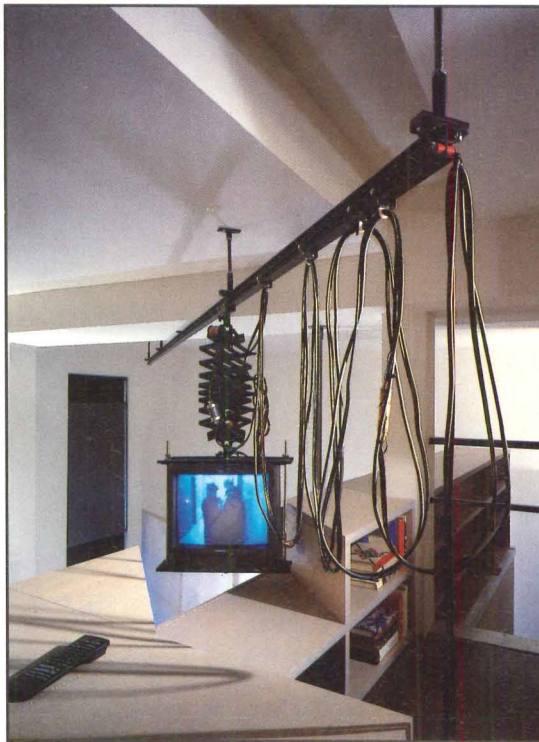
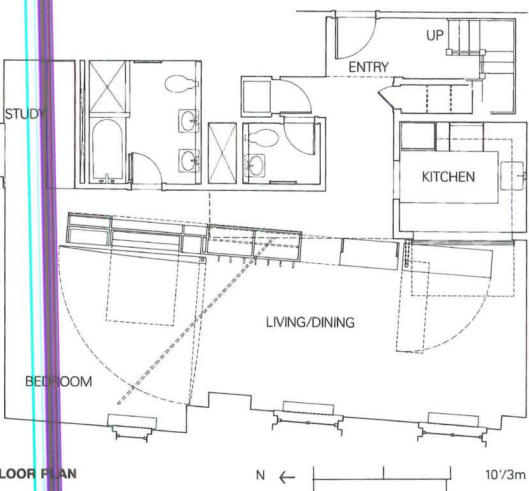
While the television seems to be a reminder of the dislocation and seeming irrelevance of physical geography in urban life and in this insular apartment, the architects made another small gesture that attempts to remind the visitor where he is: While uncovering a walled-off space in the corner of the apartment (now used as a second study area), they encountered a filled-in door and a patch of exposed brick that they kept as a glimpse into the otherwise unexamined structure of the old building.

Mark Alden Branch





the dining table (1) pivots to sit against the kitchen wall when not in use; a canopy swings down to cover the kitchen pass-through when desired. The architects chose expanding chairs like those used at graveside funerals for the table; they can be hung on the pegged wall. A cut in the desk in the upstairs study (2) accommodates the sliding television monitor. The translucent pivot door (3) hides the folded-up Murphy bed.



2

**Project:** Model Apartment, Police Building, New York.  
**Architects:** Smith-Miller + Hawkins, New York (Laurie Hawkins, partner-in-charge; Ruri Yampolsky, project architect; with Jennifer Stearns and Kit Yan).  
**Client:** The Police Building.  
**Program:** remodeling of duplex apartment in former police department headquarters for use as model apartment.  
**Contractors:** Martin Myer, contractor; Philip Meskin, cabinets; Steven Iino, cabinets, metalwork.  
**Costs:** not available.  
**Photos:** Paul Warchol.





## In the Mind's Eye

A museum of photography by Stanley Saitowitz portrays a machine in the service of art.



California Museum of Photography

130 This late in the day, as the skies darken with exhaust fumes, we are eons removed from the wide-eyed faith this society once had in technology. The disillusionment with machine-aided progress is reiterated in contemporary architecture. While many structures – and volumes of paper architecture – depict the machine decayed, antiquated, or reassembled as ad-hoc, post-apocalyptic contraption, the California Museum of Photography by Stanley Saitowitz projects a far more poetic, and so anachronistic, vision.

Intent on conveying the distinct character of the museum and its holdings, Saitowitz generated his design from various related metaphors, chief among them the camera as a machine and the mechanics of photography. Their architectural expressions range from a literal *camera obscura* that was built into the façade, to the conceptual treatment of the entire structure as an “apparatus for the display of appearances.” The result could be said to have “soul:” a resoundingly modern building that is diverse, evocative, and specific.

The San Francisco architect was charged with remodeling a former Kress department store to house the museum’s functions, including display,



2





3

storage, administration, conservation, and public facilities, while preserving the sense and proportions of the existing façade on the open mall in downtown Riverside. New seismic structure and completely overhauled mechanical and electrical systems had to be incorporated. In meeting these challenges, Saitowitz has revealed his capacity to make a complex response to programmatic, contextual, and physical cues, addressing the problem of fitting new within old while pursuing aspects of light and procession central to the museum as a type.

"The main idea was to try to establish a new character for a photography museum," Saitowitz explains, "the antithesis of a painting museum." Developing this train of thought, the museum of photography emerged in Saitowitz's mind as a dark chamber, "a camera in which people are film." As light is trapped on celluloid, so images would be imprinted in viewers' brains as they moved through the building.

In what is certainly the most forceful intervention here, the architect built a steel "bridge" at mezzanine level that crosses the length of the former store's double-height hall, connecting a café and small gallery, and anchored at both ends

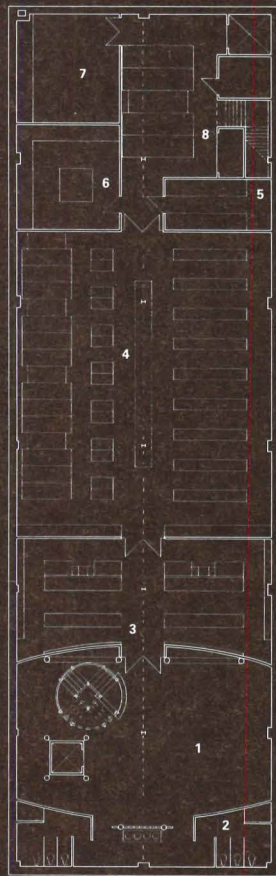
by tubular steel seismic braces. The necessary structural integration of new and old is not apparent. Instead, the bridge and the stairs leading to it are made to appear as a self-contained device assembled, Saitowitz says, "like a ship inside a bottle." When the museum budget allows, glass and steel vitrines will be suspended from the walkway railings, turning the bridge itself into an extension of the galleries.

The inserted "apparatus" yields multiple benefits: It incorporates new HVAC and mechanical systems, allowing the existing shell, moldings and all, to remain intact; the elevated walkway provides the means to shift from the vast scale of the main hall to a series of compressed spaces more appropriate for the display of "intimate" objects such as cameras, antique negatives, or small photographs; the bridge is instrumental also to establishing paths on both main and mezzanine levels.

"I was interested in the processional nature of the museum. As you move, you're absorbing things," Saitowitz says. Beyond a clear route, the catwalk and balconied spaces at either end afford visitors another perspective of what they have seen. This literal overview and the opportunity to

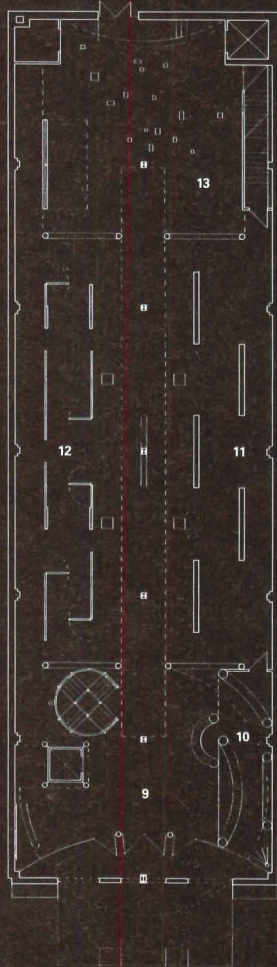
*The metaphor of the camera operates on several levels: Saitowitz built a camera obscura into the façade of the building (2), a dark concrete chamber on the third level, accessible via narrow slots and equipped with a lens that projects the inverted image of the mall onto a concave wall. In restoring the existing façade (1), the architect opened holes in the parapet to frame the museum logo against the sky. Columns, flanked by curved glass block walls, were added to frame the entrance, as well as a curved canopy of perforated metal. Interior walls in the main hall (3) were painted in seven shades of gray, akin to photographic gradations.*





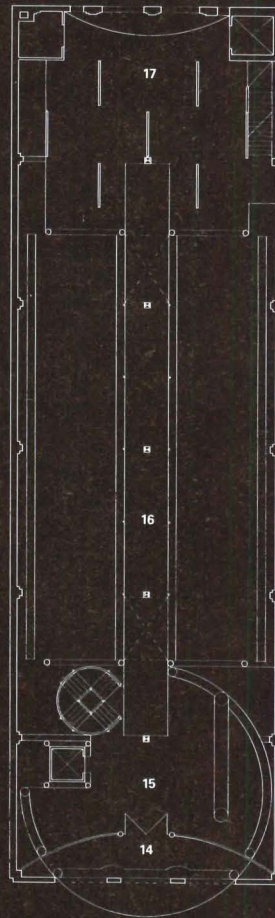
- 1 GALLERY
- 2 RESTROOM
- 3 PRINT VIEWING
- 4 COLLECTIONS
- 5 DARKROOM
- 6 CONSERVATION
- 7 FABRICATION
- 8 STORAGE

BASEMENT FLOOR PLAN



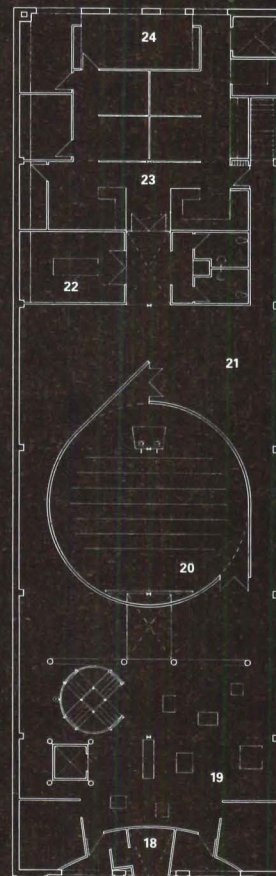
- 9 ENTRY
- 10 RECEPTION BOOKSTORE
- 11 PERMANENT DISPLAY
- 12 TEMPORARY DISPLAY
- 13 CAMERA GALLERY

GROUND FLOOR PLAN



- 14 TERRACE
- 15 CAFE
- 16 BRIDGE GALLERY
- 17 MEZZANINE GALLERY

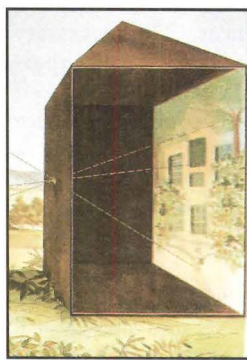
MEZZANINE PLAN



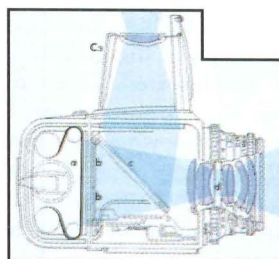
- 18 PINHOLE CAMERA
- 19 INTERACTIVE GALLERY
- 20 AUDITORIUM
- 21 GALLERY
- 22 CONFERENCE ROOM
- 23 ADMINISTRATION
- 24 DIRECTOR

SECOND FLOOR PLAN N ←

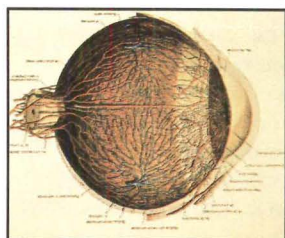
*In analyzing the attributes and mechanisms of photography, Saitowitz drew on images such as a section through the human eye (3), another through a camera (2), and a vintage representation of a camera obscura (1).*



1



2



3

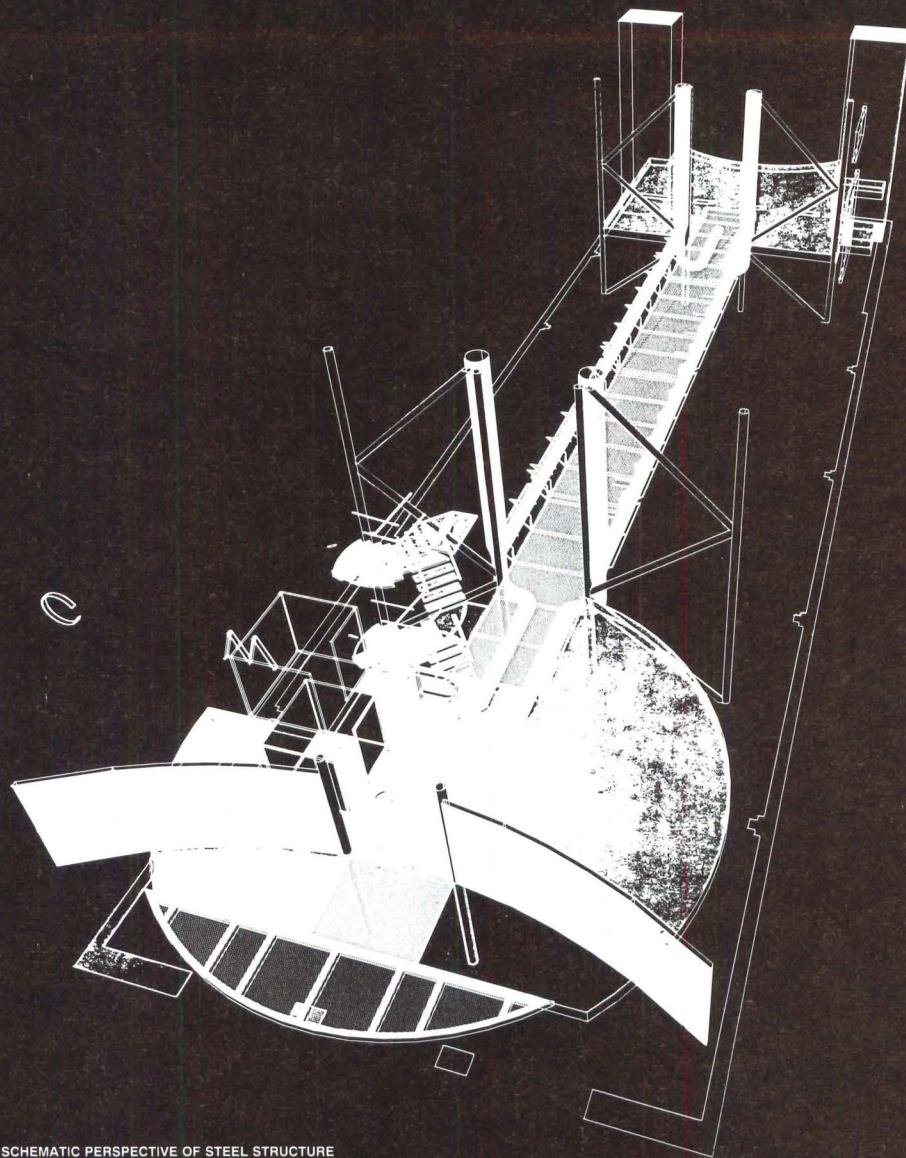
watch other people move through the building are qualities Saitowitz particularly values: “It is one thing I have always loved about the Guggenheim.”

It is Kahn, though, who most influenced Saitowitz in this work, specifically through the Kimbell, which he considers definitive. For the photography museum, Saitowitz consciously aimed to invert Kahn’s light-washed vaults: “I wanted you to walk into a black room. . . to be in this harsh mechanical darkness so that you’re constantly aware of the mechanistic nature of the photograph.” The desired ambience was achieved through the wide and varied use of steel and other metallic structural elements, and through conscious “deprivation” of light. Narrow exposures on either side of the building admit limited daylight; the shadowy space in between is pierced with directed shafts of natural and artificial illumination.

However powerful the photographic analogies have been in shaping the museum, the metaphors per se are of little interest to Saitowitz. It is the new reality generated by their judicious application that the architect was after – much as an inspired photographer transcends mere documentation.

**Ziva Freiman**





SCHEMATIC PERSPECTIVE OF STEEL STRUCTURE



The basement accommodates the museum's storage and conservation functions as well as a compact display area. The second floor is tripartite in organization: At the front, overlooking the mall, is the camera obscura, approached through an interactive gallery that occupies this end of the building. At the opposite end, Saitowitz located administration (4), which benefits from the second exposure. A small circular auditorium occupies the center of the elongated floor plate. The rubber and vinyl finishes used on various furnishings are materials associated with camera fabrication. Skylights and steel grates inserted into the floor (4, left) correspond to similar openings on the mezzanine level, allowing vertical shafts of daylight to penetrate the building.





1

**Project:** California Museum of Photography, Riverside, Calif.

**Architects:** Stanley Saitowitz Office, San Francisco (Stanley Saitowitz, principal; John Winder, project architect; Ulysses Lim, Daniel Luis, Dwight Long, Patrick Winters).

**Client:** University of California, Riverside.

**Site:** the mall in downtown Riverside.

**Program:** 23,500-sq-ft remodel of former Kress department store into museum of photography. New seismic structure; mechanical and electrical systems; exhibition spaces, lecture room, bookstore, café, conservation/fabrication, administration, collections storage.

**Structural system:** two tubular steel braced frames; plywood diaphragms to meet Title 88, Seismic Codes.

**Major materials:** Steel, both structural and finish material in various forms of sheet metal, perforated, woven, corrugated; glass block, rubber, vinyl (See *Building Materials*, p. 186).

**Mechanical system:** Forced air HVAC system with economizer in main public areas and administration; HVAC with processed load units and humidity control in collections area.

**Lighting:** consultation with Dan Malman

**Consultants:** Vogel & Meyer Partnership, structural; F.W. Associates, mechanical and electrical.

**General contractor:** Magnon Development Companies.

**Costs:** \$ 1,721,000 (\$74 per sq ft).

**Photos:** Tim Street-Porter, except as noted.

The bridge (1) serves to divide the main hall (2) into temporary and permanent exhibition spaces. Its floor and railings of perforated metal afford the element a measure of transparency, which, together with the metal's fine texture, considerably mitigates the structure's bulk. A circular stair (3) of embossed steel plate and an adjacent elevator are similarly enclosed.



2





IMAGES







# Perspectives

Viable predictions of the **future workplace** must take into account

not only what is changing, but what is not.

## Essay: The Office of the Present

"If you know what a thing will look like fifty years from now, you can do it now," said Louis Kahn. His maxim seems all the more pertinent these days, as speculation on the office of the future runs rampant. Yet to design is, by definition, to anticipate. Kahn's operating premise was clearcut. "There are certain rules which will always be true," he said. "What a thing will look like will not be the same, but that which it is answering will be the same."

Applying this approach to the problem of anticipating what office life will be like some years from now, it is safe to assume that however much the workplace may change in response to technological advances and corporate restructuring — human nature, most likely, will not. Failure to recognize this has characterized most of the futuristic visions that never came to pass.

Before a matrix for the future can be established, it is necessary to understand the variables and constants shaping the present. A flurry of articles and studies published over the past three years have documented many of the trends already having effect. Prominent among them are radical shifts in the structure, priorities, and work patterns of the American corporation. In a special supplement on the workplace published in early June, the *Wall Street Journal* reported on the "flattening" of corporate hierarchies.

Spurred by global competition, U.S. companies are trimming fat from cumbersome middle management echelons. A new, team-oriented style of leadership is required of the survivors.

Teamwork and its inspirational dividends have long been known to the scientific community. Now it is becoming widespread within the business community and for similar reasons. "Creativity and innovation will be a key competitive factor," asserts Terence West, director of industrial design for Steelcase, Inc. West has been instrumental in the development of "Context," a furniture system introduced last year, which is somewhat easier to reconfigure than panel systems, to accommodate the recombinant dynamics of a workplace where "knowledge workers" are convened in teams for the duration of a project and then disbanded.

Those who work alone are even more mobile. The *Journal* reports that roughly 9.2 million



**"However much the workplace may change in response to technological advances and corporate restructuring — human nature, most likely, will not."**

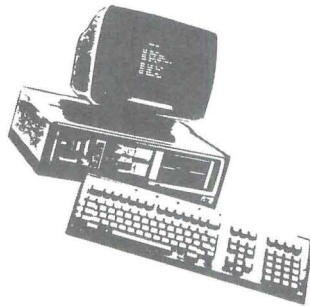


Illustration: Kristin Reid

Americans already work at home at least part of the week, linked to the head office by fax and computer. The ranks of these "telecommuters" are expected to swell as computers become increasingly pervasive. According to the Office Environment Index (OEI), a survey of U.S. and Canadian workers and managers conducted since 1979 by Louis Harris and Associates in conjunction with Steelcase, there was a "quantum leap" in computerization during the 1980s, from 66 percent of office workers using a terminal or PC in 1986 to 78 percent in 1988. Since then, the proportion has not changed, but usage has become more intense. Close to a third of workers surveyed in 1989 reported that they use a computer five or more hours per average workday.

With fewer employees expected to enter the workplace in the next decade or so, it has become imperative for corporations to retain valued staff in the face of shrinking expert labor pools. Already, a large minority of companies are going quite far in an effort to accommodate demographic sectors such as working mothers and workers approaching retirement by introducing flexible hours, as well as more part-time and job-sharing positions. (The 1989 OEI reports a total of 35 percent of workers in the latter two categories.)

The new work patterns would not be possible without extensive office automation. What high-tech wonders lie just beyond such mainstream goodies as PC's, fax machines, and electronic and voice mail devices is the object of disparate, often fanciful extrapolation. That is hardly surprising. Technology has always been a fixation with futurists. Ironically, significant breakthroughs of recent years — fiber optics, for instance — have yet to be widely applied; further developments in the near future will probably occur more in the realm of refinement than revolution. Judging by the cycles of technological evolution we've witnessed thus far, some of these refinements will tend toward functional integration and downscaling. With the potential for miniaturization at hand (via extant wireless transmission, or "tubeless" video), it is odd that so many designers of furniture and building components persist in planning for cabling and hardware in their present ungainly forms.

We are somewhat wiser about other aspects of technology having to do with the high hopes once attached to the automated office. "The so-



**"The recognition that technology is fallible and not always salutary is part of a broader cultural reassessment based on ample evidence of environmental harm."**

called 'paperless office' will probably never materialize," says Steve Diskin, an architect, industrial designer, and co-founder of Mega/Erg, a privately funded office-design think tank based in Beverly Hills. Recently published statistics support his case. According to the American Paper Institute, an estimated 22.8 million tons of paper (not including newsprint) were used in offices and for some publications last year – nine million tons more than the amount consumed in 1979. A forecast by Wohl Associates published in the *Wall Street Journal* predicts that by the year 2000, U.S. businesses will need storage equivalent to all the office space in Pittsburgh to file the 120 billion sheets of new paper they will generate every year. One reason for the continued proliferation of paper is quite pragmatic: "It's not been shown that you can protect information without it," Diskin says. Paper has also proven to be a spontaneous, accessible, and so preferred means of "display"; more patient than the electronic screen, it is considerate of less-than-perfect work procedures.

"There was an expectation that the computer would create more leisure time, but that's not true either," Diskin continues. "Now you can take it with you, so there's no escape anymore." The information explosion has been a well-documented consequence of technology's gift of speed and portability. An unforeseen byproduct of the ease and immediacy of communication has been an insidious dilution, or downgrading, of the quality of information exchanged. (An indication of this can be found in pending legislation: A bill now before Congress proposes to ban unsolicited advertising via fax).

The technological and organizational changes highlighted here have led to significant attitudinal shifts among both employees and executives. The recognition that technology is fallible and not always salutary is part of a broader cultural reassessment, based on ample evidence of environmental harm. "We're jaded, no longer interested in technology for its own sake," says Geoff Hollington, an English industrial designer responsible for "Relay," Herman Miller's groundbreaking furniture collection to be launched this fall (see *New Products and Literature*, p. 161). Hollington represents an emerging consensus among designers and manufacturers on the need to "humanize" the workplace. "One of my images of the office of the future is a rolltop desk



**"An adjustment in the physical portrayal... of efficiency is a corollary of this newly skeptical stance toward automation."**

**"Hand in hand with the ascendance of individual initiative [there is] a desire, not yet met, for democracy to replace the pyramid."**

and an old leather chair," he says. "On the desk is a piece of 'intelligent' paper, intelligent pen, intelligent dictionary."

An adjustment in the physical portrayal, or "image" of efficiency is a corollary of this newly skeptical stance toward automation. To some extent, it is reflected in a reaction against standardized panel furniture systems. "There are many more white collar workers today, more jobs in the office than in the factory, yet the office is treated like a factory. It's a problem with panel system regimentation and [lack of] identity," says Donald Chadwick, an industrial designer best known for the "Equal" ergonomic chair, which he co-designed with Bill Stumpf for Herman Miller. There is little dissent on this score, although aesthetics may vary. For example, the "Nomos" furniture designed by Norman Foster for Tecno, a European manufacturer, employs high-tech "lunar lander" imagery, injected with color. It, too, breaks with the "system" approach in that it is more adaptable and casual about exposed wiring and joints.

How have these attitudinal shifts affected employee expectations? Steelcase's West puts it succinctly, "Once work was nine-to-five, then it became a 'career,' now it's an identity." Similarly revealing, the 1989 OEI summary of findings notes that "the opportunity to grow and be recognized as an individual is highly important to office workers. . . the era of the 'organization man' is gone." Hand in hand with the ascendance of individual initiative and achievement, the survey reports a heightened demand on the part of rank-and-file workers for greater participation in the corporate decision-making process – a desire, not yet met, for democracy to replace the pyramid.

In physical terms, such demands for more say can be seen in an increased interest in self-expression through the selection and arrangement of furnishings, as well as in workers' preference for environmental "self-determination" by way of direct control over temperature, lighting and ventilation (see *Technics*, p. 46). Whether such control is viable remains to be seen.

Whatever the future workplace turns out to be, this much is clear: People will continue to welcome interaction with colleagues, seek ways and places to take a break, cherish a modicum of privacy, have failings. As Chadwick says, "Everything in the office may be changing – except the people." **Ziva Freiman**



**Robert Cadwallader** assesses the likely effects of the common market merger.

### Opinion: Europe After 1992

**P/A:** Does the merger of 1992 present "windows of opportunity" for the U.S. design industry, and if so, for whom, and how?

**Cadwallader:** The simple answer is "yes, but," because there have been increasing opportunities since the common market was founded. Many Americans have the impression that when the clock strikes midnight on the last day of 1991, Europe will change totally and in an instant. This is just not so. It will be the conclusion of a process that began almost 30 years ago. Before then, if you wanted to do business in Europe, you had to have a complete company infrastructure in every country in which you wanted to operate. I was with Knoll at the time, and we had a factory in France, another in Germany, and another in Italy, with a full set of executives in each. The duties on furniture imports between these countries were prohibitive, but they began to disappear quickly among common market members. The cost to produce in Germany was double that of manufacturing the same products in France, so we closed the German factory and supplied the German market from France. This could not have been done before. After 1992, a design firm with an office in any common market country will be able to do business in any other member country, "no questions asked."

**P/A:** Do you see changes in the ways we do business with European manufacturers and clients?

**Cadwallader:** I don't really see a lot of changes. I firmly believe that the biggest problem we have in doing business with Europeans is our "lack of language." This causes us to lack an understanding of their culture, and when we don't understand their culture, we don't know how to do business with them. I contend that if the U.S. government would make a big push on teaching foreign languages and have travel to the countries as an integral part of the training, our next few generations would carry us on to be the biggest exporters ever.

**P/A:** How will the 1992 merger affect the way Europeans do business with us?

**Cadwallader:** After 1992, Europeans could spend more time attending to their own, rather than the U.S. market, since the common market will be bigger than that of the U.S. The key word here is "could," because I don't expect this to

**"After 1992, a design firm with an office in any common market country will be able to do business in any other member country, no questions asked."**



*European Community flag; the number of stars is invariable, 12 being the "symbol of perfection."*

**"I firmly believe that the biggest problem we have in doing business with Europeans is our lack of language."**

*Robert B. (Bobby) Cadwallader was president and CEO of Knoll International, Inc. and was chairman and CEO of Sunar, a division of Hauserman, Inc. He is currently active in the industry as a representative of textile and leather factories and as a consultant.*

happen: The U.S. market is only slightly smaller, and it is still one country. There will always be a France, a Germany, an England and so on.

**P/A:** Will U.S. manufacturers and design firms be competitive in the new global markets?

**Cadwallader:** Most American companies never think about exporting. When I first got involved in European business, they could export to the U.S. at very advantageous prices because their labor rates were much lower than ours. Now their rates are equal to or above ours. How do they continue to export here at higher prices? They do it with superior design and quality. At any rate, we perceive that they do, and as they say in Aspen, "Perception is reality."

**P/A:** Could you remark on the possible consequences of the unification of the two Germans?

**Cadwallader:** The West Germans with whom I am currently involved are not too thrilled about the prospects of "helping East Germany." They perceive it as a big piece of work that will detract from what they have worked so hard to build. I have tried to buy furniture parts from Eastern Europe, and I must say that they almost don't want to talk. They do not consider you a customer, with customer's rights, but a person who will cause them to work more for nothing because no matter how hard or long they work, their pay is the same. This can change with competition and incentives, but it will take time. I would like to digress and tell you that my first trip to Europe was in 1966. My first stop was in Paris, marvelous Paris. People were running around carrying their baguettes of French bread and smiling. Next stop was Zurich. There we saw the Swiss running around, smiling and carrying bunches of flowers. I thought, the French run around carrying bread, and the Swiss run around carrying flowers. . . do they eat flowers? When I got to Germany, I noticed the sky was gray, the buildings were gray, the Mercedeses were gray, and the people were not running around smiling at all. They were working! They had a physical attitude of the head tilted a little forward, looking down at their "work." The next time I saw a similar phenomenon was in Tokyo! The Japanese had more or less the same physical "pose" of the Germans – head tilted a little forward. Ultimately, I suspect a united Germany will be successful, because the West German work ethic will prevail. ■



For an exhibition in Portugal, **Stanley Tigerman** has placed

99 Chicago architects in categories of his devising.

### Exhibition: Chicago Categorized

Last year, the Gulbenkian Foundation in Lisbon held an exhibition on Chicago architecture, curated by architect Stanley Tigerman of Chicago, who also designed an installation expressive of his theme. Entitling the exhibition Chicago Architecture – The New Zeitgeist: In Search of Closure, Tigerman organized the work of 99 architects into six categories – postulating a seventh, as well, into which none of them fit. (See list, right.) To quote from the catalogue by Tigerman:

Sixty-six deceased and thirty-three living architects have been selected as exemplars of seven modes of architectural production. These modes, each of which is represented by one chamber of the exhibition space, become successively less literal in their representation of forms that employ precedent as a means of authentication. This process of disintegration is investigated and expressed in the installation design, which reinforces the changes that can be perceived in the works themselves.

Beginning with the most classically influenced designers, I intend to show what I perceive to be the relationship of those practicing today to those who preceded them in the same category or mode of architectural production, as these modes are defined by this exhibition. Of course these categorizations are by no means definitive, as architects continue to grow and respond to their changing environment. . .

By making the first category, Tradition, the largest in this exhibition, Tigerman underscores the role of Classicism in Chicago, which was the basis of his earlier show, *Chicago Architecture: 1872–1922*, which appeared in Paris (*P/A*, Dec. 1987, p. 23) and Chicago (*P/A*, Sept. 1988, p. 23).

The work of the predecessor and descendant groups represents interests most closely associated with the familiarity and convenience of the traditional languages of architecture. However, their designs are not pure expressions of these traditions, because the fact that Chicago architects practice their craft in a location so removed from European sources inevitably causes them to be influenced by intervening factors.

The position of the first group of architects in this exhibition, while seemingly ordered and serene, is in fact dislocated slightly from the traditions that it appears to continue. This position is

**“Considering the collective insecurity of its citizens, it is all the more extraordinary that these six seminal architects even existed, much less flourished, in Chicago.”**

### The 99 Architects

#### 1. Tradition.

*Predecessors:* Otis Wheelock, William Mundie, Daniel Burnham, Ernest Graham, Peirce Anderson, Charles Atwood, Charles Coolidge, Richard Yoshijiro Mine, Edward Bennett, Henry Ives Cobb, Solon Beman, Alfred Alschuler, Benjamin Marshall, David Adler, Henry Dangler, Philip Maher.

*Descendants:* Thomas Beeby, Stuart Cohen, Tannys Langdon, Michael Lustig, Kathryn Quinn, Thomas Rajkovich, Adrian Smith, Thomas Gordon Smith.

#### 2. Transition

*Predecessors:* Edward Baumann, Peter Bonnett Wight, Dankmar Adler, Howard Van Doren Shaw, Charles Frost, Alfred Granger, Thomas Tallmadge, James Quinn, Ernest Grunsfeld, Jr., Richard Schmidt, Hugh Garden, George Nimmons, Robert Spencer, Jr., George Maher.

*Descendants:* Laurence Booth, Joseph Gonzalez, Ralph Johnson, Diane Legge, Margaret McCurry, James Nagle, Cynthia Weese.

#### 3. Individualism

*Predecessors:* John Van Osdel, William Boyington, Augustus Bauer, Irving Pond, Parker

articulated in the installation as slightly “off,” both dimensionally and symbolically, from the original to which it is mimetically inclined.

*Speaking of the architects in the second, transitional category, Tigerman observes:*

Values other than those learned at the École des Beaux-Arts or its American offshoots influence their architectural production even as they go about the business of appearing to further the comforting familiarity of Classicism as the only suitable language of architecture.

*Tigerman’s installation reflects the further departure of these architects from precedent, through simplification of the Classical details and attenuation of the color applied to them.*

*Of his third group, the Individualists, Tigerman says:*

The work of this group of architects resists classification. . . These practitioners do not subscribe to a particular rubric, and in fact raw innovation, the exploration of ideas not necessarily founded on historical precedent, is the only characteristic that unifies them. It is this quality that is being singled out here, as I feel it represents a certain heroism, a manifestation of that aspect of the American Dream which ennobles the individual in society.

*For their chamber in the installation, Tigerman has eliminated all moldings.*

*In contrast to the Individualists, Tigerman next identifies the Pragmatists:*

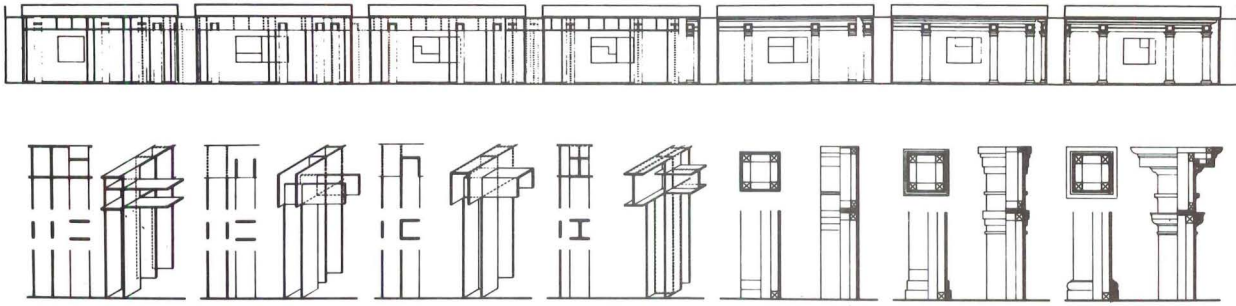
The fourth group, representing the center, is primarily made up of architects for whom “getting it right” is everything. . . Usefulness is the mother of invention in their work.

*Tigerman includes here the disciples of Mies, who followed his example when it was no longer avant-garde. He acknowledges that Bertrand Goldberg, while once a student of Mies at the Bauhaus, is “the least canonically correct of this group.” While the Pragmatists have been influential over a long period of time, Tigerman observes:*

Resistance to the apparently interminable continuity of their mode of production was inevitable; it simply took longer than anyone might have imagined due to the commercial success of the work.

The nature of this group of architects is reflected in the installation by their location in the exact center. The stripped-down, reductive quality of their work is expressed by the unclad structure of the chamber.





SECTIONS (TOP) AND DETAILS OF THE SEVEN CHAMBERS, TRADITIONAL AT FAR RIGHT

Introducing the architects he identifies with the category of Dislocation, Tigerman says:

These are the primary architects who first felt obligated to dislocate the principles that the architects of the pragmatic mode felt compelled to continue. This mode is represented in the installation by an initial disjunction that begins to disintegrate the essential structure.

Tigerman identifies some of Chicago's most revered names with the category of Disintegration:

The major heroic figures in Chicago architecture dominate this category purposefully, insofar as they all disintegrated earlier ideals in their work. Their revolutionary spirit has always represented the best of the architectural tradition Chicago is thought to have invented.

The predecessors in this group... hold in common a resistance to the collective conceits of a city determined to present itself as "legitimate." Considering the collective insecurity of its citizens, it is all the more extraordinary that these six seminal architects even existed, much less flourished, in Chicago.

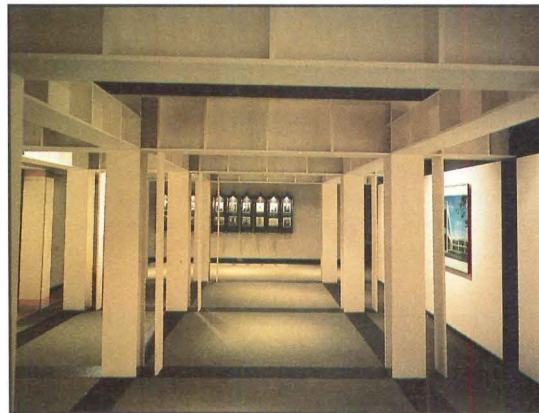
The three descendants... among the youngest individuals in this exhibition, constitute hope for the future of architecture even as they go about the business of appearing to continue the fragmentation that begins to be revealed in the work of architects in the immediately preceding group... It is reasonably safe to say that none of the three is particularly literate in Post-Structuralist, French-dominated literary theory. What they do share is the use of disintegration as a design strategy.

For the seventh and last chamber, labeled with his familiar phrase "Failed Attempts at Healing an Irreparable Wound," Tigerman has chosen no architect at all. Of course, the one overlooked Chicago architect, who would round the number out to 100 is the very architect who composed these words:

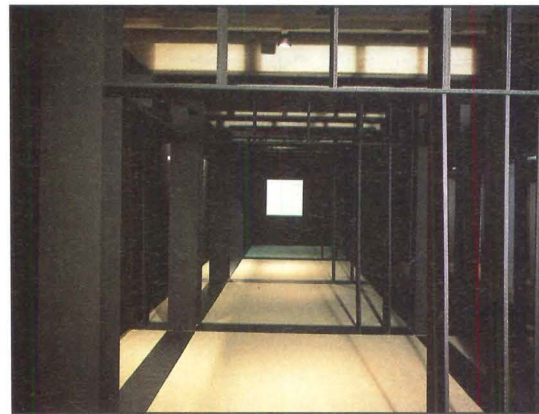
This chamber, compressed by forces that appear to diminish its size, represents both the challenge of, and the hope underlying, this exhibition... The empty chamber symbolizes what might develop out of the modes represented by the previous six chambers. A gauntlet is thrown down to future architects who, even as they give expression to contemporary cultural conditions which are often less than ennobling, remain firmly committed to the innate optimism of the architectural discipline.



1



2



3

The seven "chambers" of the exhibition include those for Tradition (1) and Pragmatism (2) and the empty final one (3). Along the circulation spine (1, 2) are black niches with photos of "predecessors" and their works; drawings and photos on the other three sides of each chamber represent the "descendants."

Mario de Oliveira

**"Of course these categorizations are by no means definitive, as architects continue to grow and respond to their changing environment."**

**The 99 Architects continued**

Berry, Andrew Rebori, Edward Dart.

*Descendants:* Walter Netsch, Frederick Phillips, Christopher Rudolph, Kenneth Schroeder, John Vinci, Harry Weese.

**4. Pragmatism**

*Predecessors:* William Holabird, Ludwig Hilbersheimer, A. James Speyer, Charles Genter, Daniel Brenner, Nathaniel Owings, Fazlur Khan, Monroe Bowman, Abel Faigy, Harry Dubin.

*Descendants:* Joseph Fujikawa, Bertrand Goldberg, Myron Goldsmith, Gerald Horn, Reginald Malcolmson.

**5. Dislocation**

*Predecessors:* Walter Burley Griffin, Marion Mahoney Griffin, Francis Barry Byrne, William Purcell, George Elmslie, Dwight Perkins, William Drummond, William Deknatel.

*Descendants:* Bruce Graham, Helmut Jahn, Andrew Metter, George Pappageorge.

**6. Disintegration**

*Predecessors:* William LeBaron Jenney, John Wellborn Root, Louis Sullivan, Frank Lloyd Wright, George Fred Keck, Ludwig Mies van der Rohe.

*Descendants:* Darcy Bonner, Paul Florian, Ronald Krueck.



## Books: Good Goods

Niels Diffrient recalls his friendship with Charles and Ray Eames –

a pair whose work has been catalogued,

but whose biography is yet to be written.

### Books of Note

**From Matt Black to Memphis And Back Again** edited by **Deyan Sudjic**, Princeton Architectural Press, New York, 1990, 240 pp., illus., \$34.95 paper. Architecture, graphics, fashion, and furniture of the 1980s are discussed in lively articles reprinted from *Blueprint*, the British design monthly.

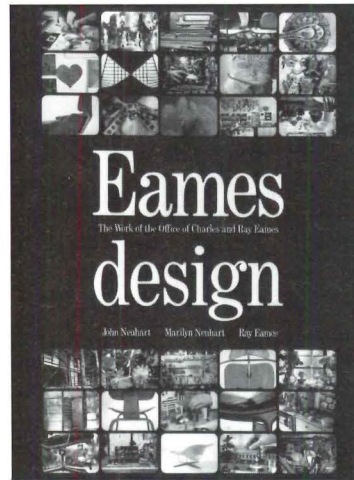
**The Architecture of Enric Miralles and Carme Pinós** edited by **Dennis L. Dollens**, Sites Books, New York, 87 pp., illus., \$15.95 paper.

This catalog follows an exhibit at New York's Storefront for Art and Architecture; essays by Peter Buchanan and others discuss the Barcelona architects' Expressionistic Minimalism.

**The World of Megaliths** by **Jean-Pierre Mohen**, Facts on File, New York, 1990, 320 pp., illus., \$35.00 cloth. "Great stones" began as shrines for ritual and interment. Mohen, an archaeologist, traces their worldwide development, and speculates on the way they were built.

**Fletcher Steele, Landscape Architect: An Account of the Gardener's Life, 1885–1971** by **Robin Karson**, Abrams/Saga-press, New York, 1990, 344 pp., illus., \$49.95 cloth. Half a century ago, Steele was one of the first landscape architects to adapt modern design principles; Karson documents his evocative gardens.

See Tech Notes (p. 55) for listings of other publications of interest.



*Eames Design: The Work of the Office of Charles and Ray Eames 1941–1978* by John Neuhart, Marilyn Neuhart, and Ray Eames, Abrams, New York, 1989, 464 pp., illus., \$95.00.

Charles Eames entered my life around 1950; it was an event that proved to be both a blessing and a curse. It was, perhaps a divine curse – a never-ending challenge to better oneself. Sometimes, on a late-night charrette, when the stress to meet a design standard seems unbearably acute, it seems natural to ask, "How would Charles have done this?" In this way I enfranchise a silent partner who exercises his control from afar. On the other hand, his acquaintance carries an ever-present burden of implicit design standards from which one sometimes screams for relief. When I am not straining to meet Charles's standards (for he is always looking over my shoulder!), I can see that his presence is a blessing: Charles provided an exquisite model to follow.

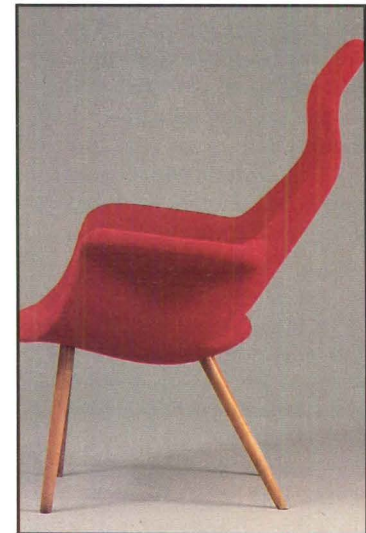
*Eames Design*, by John and Marilyn Neuhart and Ray Eames, makes me realize that I was perhaps fortunate not to have been closer to the Eameses than I was. Their influence on a daily basis must have been overwhelming. With too much exposure to these designers, a person might have risked displacing one's own personality and intuition. As it was, in my case, following his spoor as a younger, geographically removed colleague was an experience powerful enough to leave an indelible im-

print on my own attitude about design.

In life, Charles Eames was highly compelling. Even today, in this posthumous monograph, I am struck with the sense that he was reaching out through the ether to influence this book. It looks like a product of their office, suggesting that Charles and Ray are still in control of anything connected with their name. Since they are the ghost writers, so to speak, of this book, there is no criticism to be made of it. It follows the hand of these masters as well as anything, short of turning to a Ouija board. It is a superb catalogue of everything, and I mean everything, they did. One might think that this book was in their plan from the beginning: Everything from their office seems to have been photo-recorded for later use – all the visitors, birthdays, life at work, and presentations.

Control was important to Charles Eames. He never did a project in which he could not have close to complete control of all factors of the design. (Ray, best known for her graphic design, was chorus to his solo aria.) He even forsook the practice of architecture because he could not con-

(continued on page 190)



Collection Niels Diffrient

This chair is a restoration of one of the originals designed by Charles Eames and Eero Saarinen that won the Museum of Modern Art's "Organic Furniture" competition in 1940. It is the seed from which both men produced furniture designs that set standards for over half a century.



# Projects

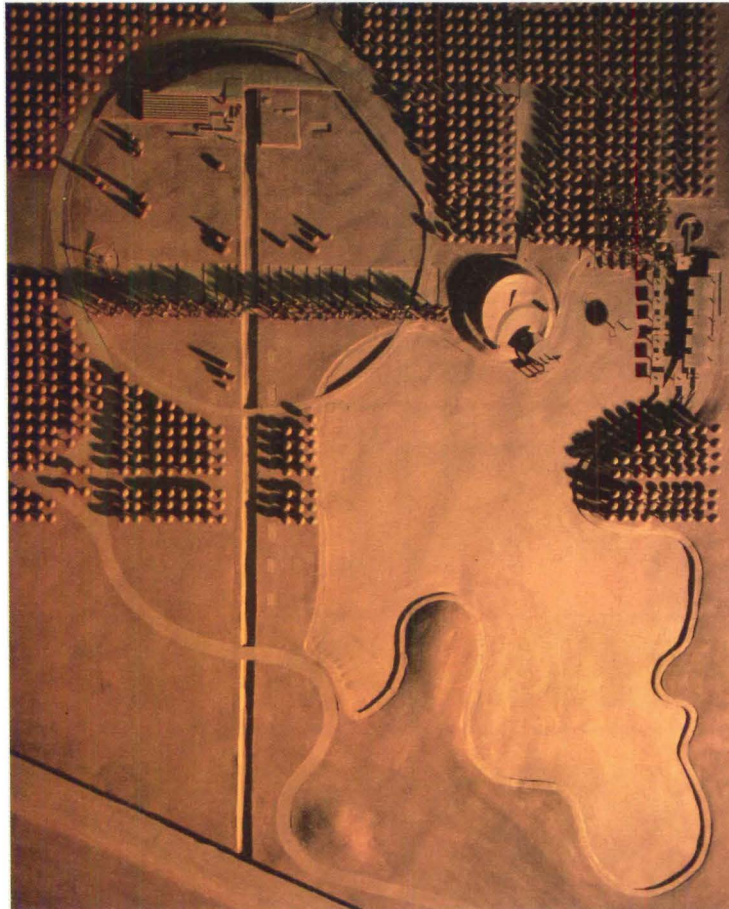
The **Los Angeles Arts Park**, an attempt to integrate landscape and architectural design, has five strong projects and the beginning of a planning strategy.

In the San Fernando Valley, where cultural offerings don't extend far deeper than the cineplex, the Arts Park will give a long overdue artistic focus for the millions who live there. Sponsored by the Cultural Foundation (an alliance of artists and civic leaders), this ambitious project encapsulates the problems endemic to planning in Los Angeles: Diversity is the strength of the present plan, but the juxtapositions within the Park need further resolution.

The Foundation envisions a center for the performing and fine arts that will be an alternative to offerings elsewhere in the city. The site, a flood control plain with scrubby vegetation, berms, and a creek that is often dry, will remain under the control of the U.S. Army Corps of Engineers, while providing a complement to the Valley's commercial centers. The Arts Park took its present form after the Cultural Foundation consulted with Don Stasny, a Portland architect; he was asked to program a competition – a readily publicized way to kick off a capital campaign.

The Foundation distributed the program among a number of buildings; they wanted the site to remain a place where nature, rather than buildings, provide the strongest impression. Monumental structures were out of the question, on ecological and programmatic grounds: This was to be a recreational center, a place where families could simultaneously enjoy the outdoors and the fine arts.

The Cultural Foundation believed that a pluralistic ap-

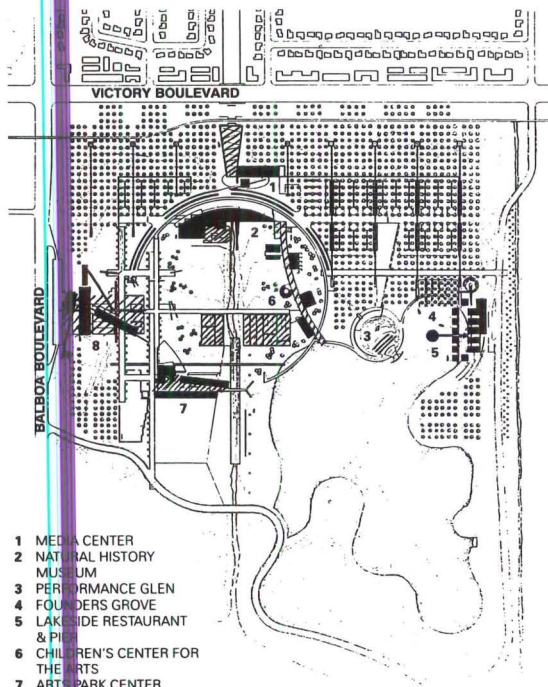


Craig Hodgetts

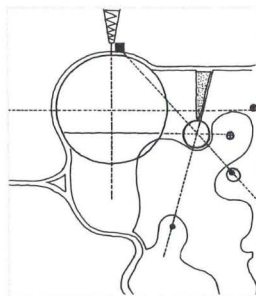
1 SITE MODEL, ARTS PARK, SEPULVEDA DAM BASIN, SAN FERNANDO VALLEY; DESIGN TEAMS LED BY HODGETTS & FUNG AND ADELE NAUDÉ SANTOS



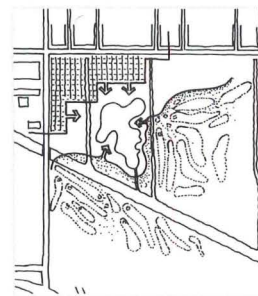
AXONOMETRIC PLAN WITH BUILT STRUCTURES, TREES, AND EXISTING TOPOGRAPHY



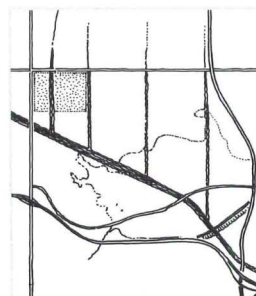
2 MASTER PLAN



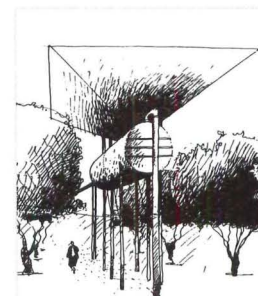
CIRCULAR SITE PLAN FEATURES IMPLIED AXES IN AN EGALITARIAN STRUCTURE



GRID OF ADJACENT ROADS BECOMES LANDSCAPE PATTERN FOR PARK



CREEK AND FLOOD BASIN OF PARK ARE PART OF WATERWAYS THAT FLOW INTO LOS ANGELES RIVER



WATER TOWERS AND IRRIGATION SYSTEMS, VISIBLE FROM THE BOULEVARD, ARE AMONG TREES



proach would be the surest route to public approval; Valley residents seem to be circumspect of large public institutions that bear the imprint of a single designer. In a procedure that was expedient, but hazardous to the design integrity of the Park, the Foundation forestalled master planning until after five designs were selected from 15 semifinalists. This strategy guaranteed the Foundation a diverse collection of buildings, but once the winners were selected it became clear that their synthesis in a comprehensive plan would be difficult.

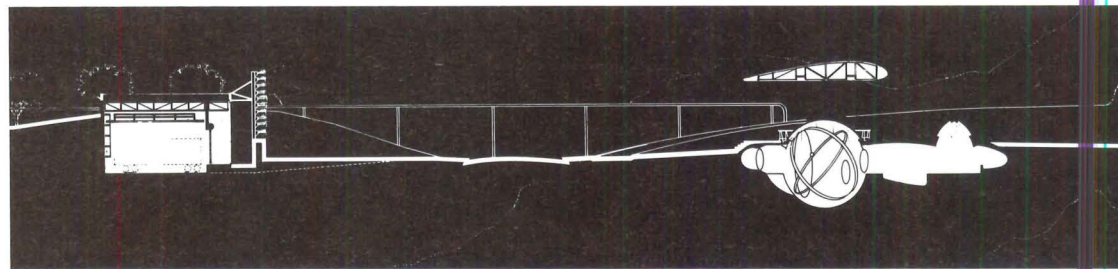
Fortunately, two of the invited architectural offices – Craig Hodgetts & Ming Fung and Adèle Naudé Santos – submitted a planning strategy with their building designs, as an extra dividend. Their colleagues accepted the model illustrated here as a working site plan and agreed that a more synthetic design should follow when the buildings advance beyond their present conceptual stage.

While the plan (1,2) is tailored to the suburban sprawl that surrounds the site, it is essentially an incremental system for integrating the history of the site with the buildings. Though not as adventurous as it could be, it should yield a pleasant park. Because the environs offer no space with a civic identity, Hodgetts, Fung, and Santos created a figural public place within the Park – a large circular field lined by the arts buildings and a loop road.

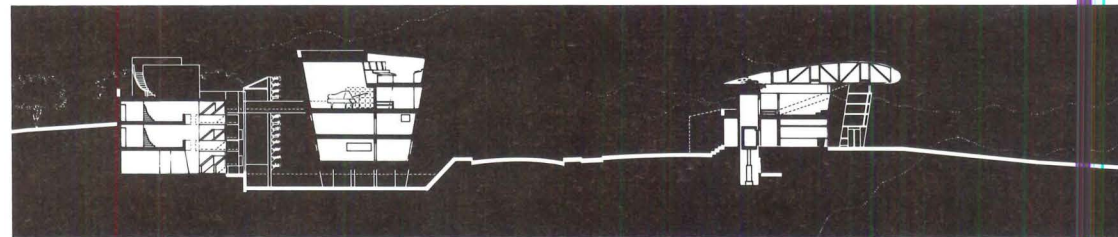
The Media Center and Natural History Museum (3,4,5), designed by Hodgetts & Fung, in association with Santos, landscape architects Rios Pearson, and the artist Mary Miss, will be a pair juxtaposed on the Park's loop road: A warehouse structure will house sound and video studios, a gallery, and a recital hall, set in the hillside for sound insulation. The Museum, by contrast, will be an object-building surrounded by open space. While eccentric, it is simple and



3 MEDIA CENTER AND NATURAL HISTORY MUSEUM; DESIGN TEAM LED BY HODGETTS & FUNG

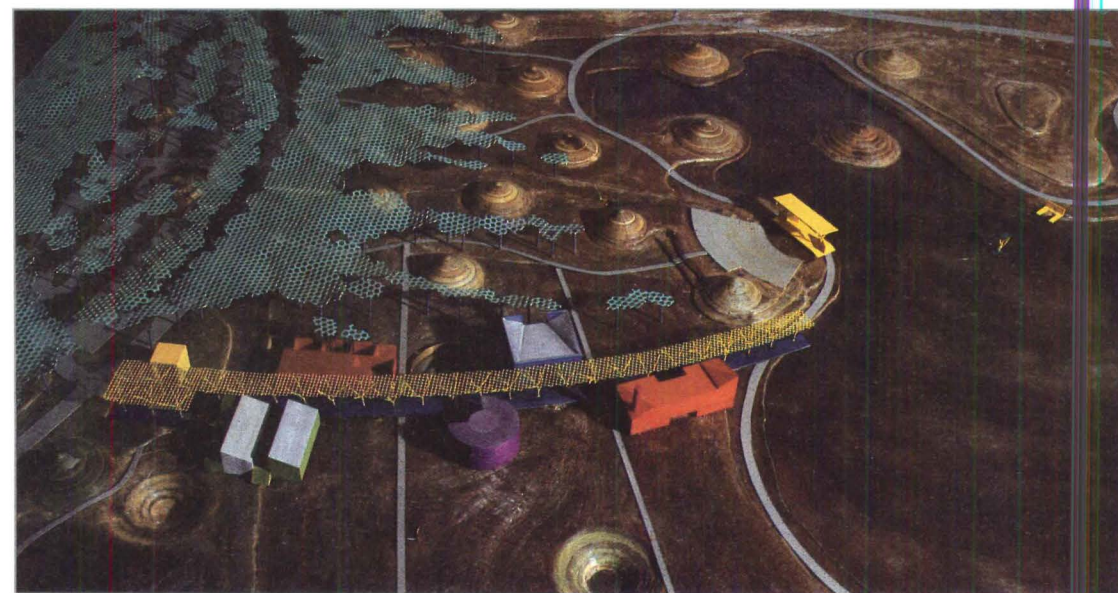


4 SECTION THROUGH MEDIA CENTER AND SUBTERRANEAN EXHIBITS OF MUSEUM



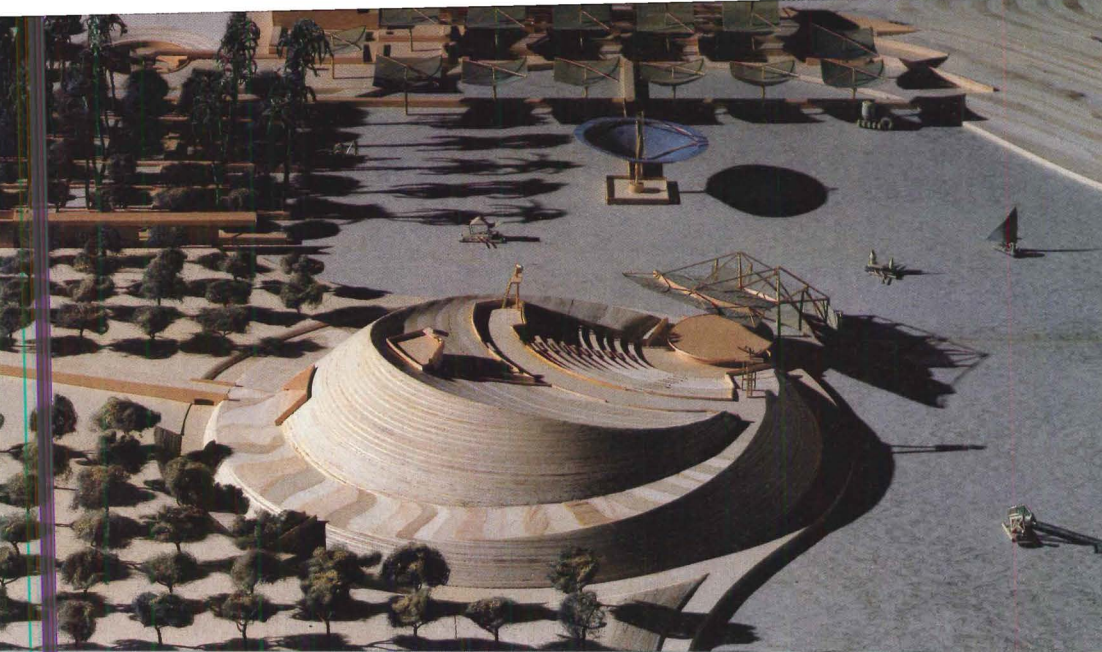
5 SECTION THROUGH MEDIA CENTER AND UPPER LEVELS OF MUSEUM

40 2m



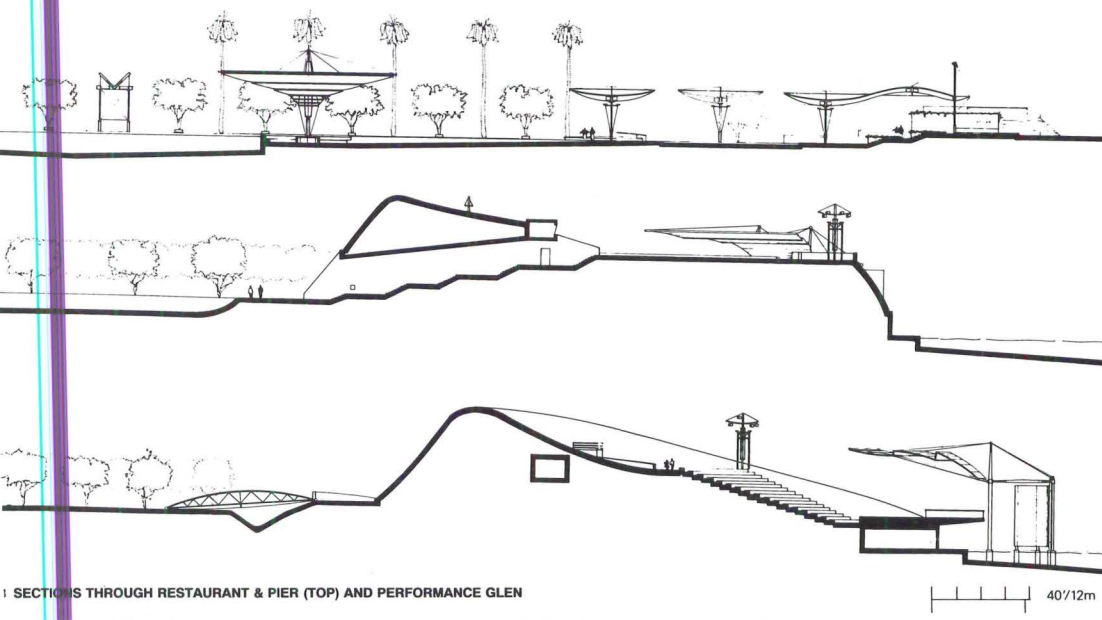
6 CHILDREN'S CENTER FOR THE ARTS; DESIGN TEAM LED BY MARK MACK





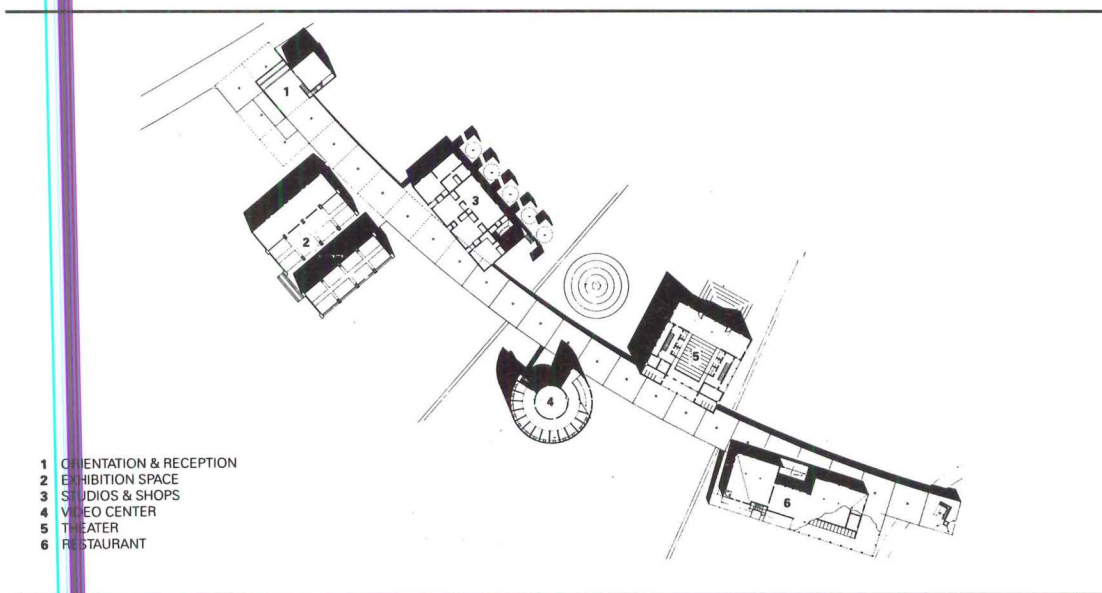
Tom Bonner

7 PERFORMANCE GLEN, FOUNDERS GROVE, AND LAKESIDE RESTAURANT & PIER; DESIGN TEAM LED BY ADÈLE NAUDÉ SANTOS



1 SECTIONS THROUGH RESTAURANT & PIER (TOP) AND PERFORMANCE GLEN

40'/12m



- 1 ORIENTATION & RECEPTION
- 2 EXHIBITION SPACE
- 3 STUDIOS & SHOPS
- 4 VIDEO CENTER
- 5 THEATER
- 6 RESTAURANT

PLAN, CHILDREN'S CENTER FOR THE ARTS

N 100'/30m

elegant, in the spirit of early California Modernism. Subterranean grottos will recreate prehistoric environments as dramatically as the tableaux of Disneyland. From here, visitors will be able to follow the curved ramp up to the main level, where exhibits will be installed in a black box structure.

The Performance Glen (7,8), designed by the same team, under Santos's leadership, will rise between the grid of trees and the lake, like a volcanic crater. Inside, the space frame of the stage will dominate the bowl-shaped seating area. The Founders Grove, part of Santos's design, is next to a restaurant with dining terraces that step down to the water. A row of aluminum canopies along the pier will mark berths for a series of barges, each designed by an individual artist. As floating art objects, they'll be a popular medium for combining art and outdoor recreation.

Mark Mack, in association with the landscape architect George Hargreaves and the artist Douglas Hollis, proposed a boardwalk, elevated above the floodplain, as a spine for the Children's Center for the Arts (6, 9). Branched columns and a lattice roof will evoke treehouses and shade this "front street," a discovery route for children. Six simple structures will line the boardwalk with galleries, studios, a video center, theater, and a restaurant. While impressive as a conglomerate structure, the Children's Center, as Mack acknowledges, has yet to be adjusted to the site plan. The junction with the Natural History Museum seems awkward, and the elevated boardwalk is likely to render the circular drive superfluous, both formally and functionally. Like the balance of the projects presented here, Mack's was designed without advance clues about the ultimate master plan.

The Arts Park Center (10,11,12), designed by Tod Wil-

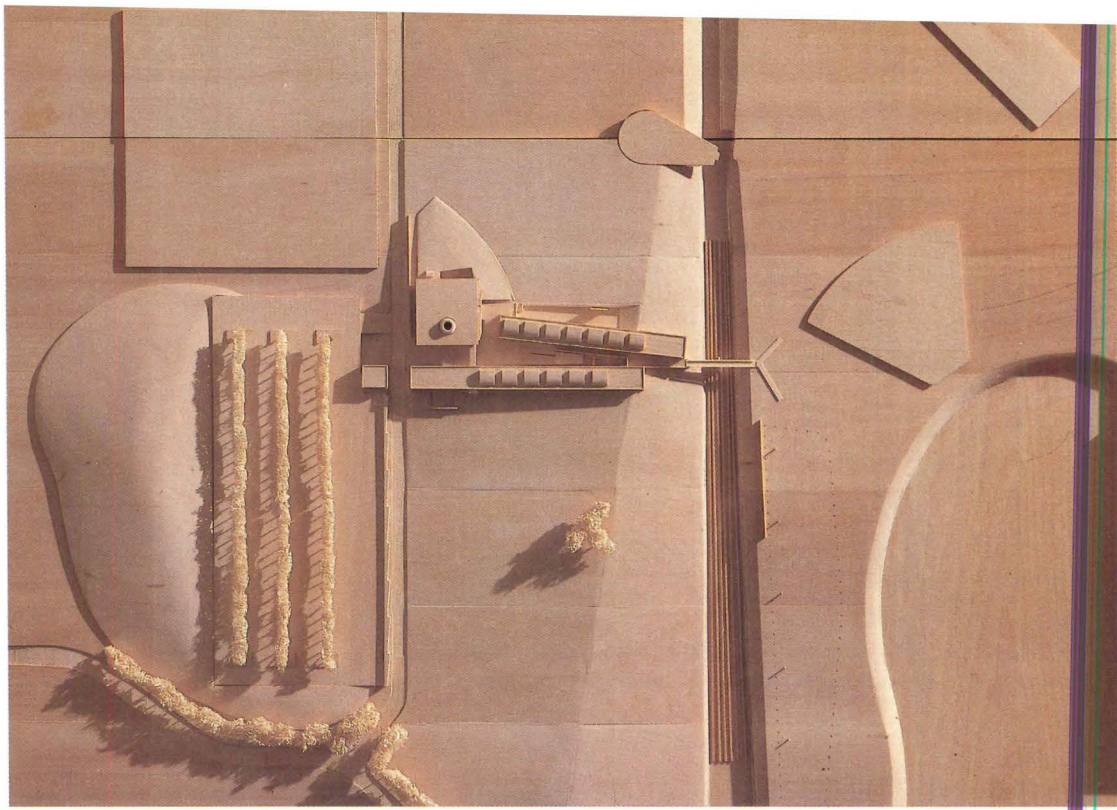


liams & Billie Tsien, in association with the landscape architect Cheryl Barton and the artist Elyn Zimmerman, adapts the courtyard – an urban model – to the park. The Center will be the park's gateway, with an elongated plaza framed by shed-like galleries. Zimmerman considers them analogous to the pedestal for a Brancusi sculpture. The sheds frame a procession through spaces with varying degrees of enclosure, complemented by a conoidal rotunda in the Center's square building. This empty space, like the domes of civic and ecclesiastical structures, will offer a more focused place of contemplation, physically and psychologically removed from the natural landscape.

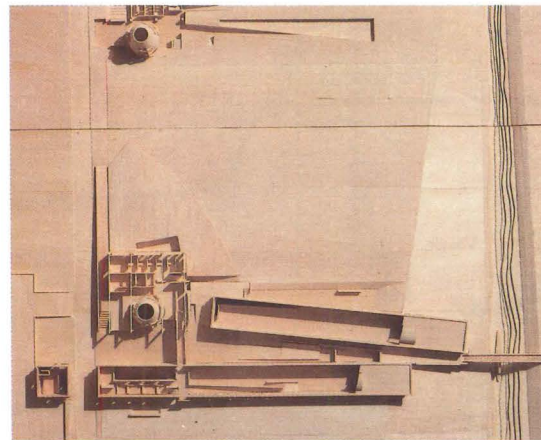
The Performing Arts Pavilion (13) by Morphosis, in association with Coop Himmelblau and the landscape architects Burton & Spitz, will be the most complex work of architecture in the park – a consequence of both the program and the designers' sensibilities. A P/A award winner (see P/A Jan., 1990, pp. 107–109), it extends the street grid into the landscape of the Park. In plan and section the buildings feature man-made incisions into the earth, with the theater set below grade to conform with the site's 30-foot height limit. Rather than juxtaposing architecture and nature, Morphosis foresees a convergence of the two realms, but their intricate architecture will be anything but inconspicuous.

The five projects awarded by the Cultural Foundation are the components of a laudable goal: a broadened art audience, and a public place that integrates architectural and landscape design. While it has a series of compelling buildings, the Foundation should not underestimate the importance of uniting them with a synthetic plan. In order to give their park the integrity it deserves, a more wholistic approach will be essential.

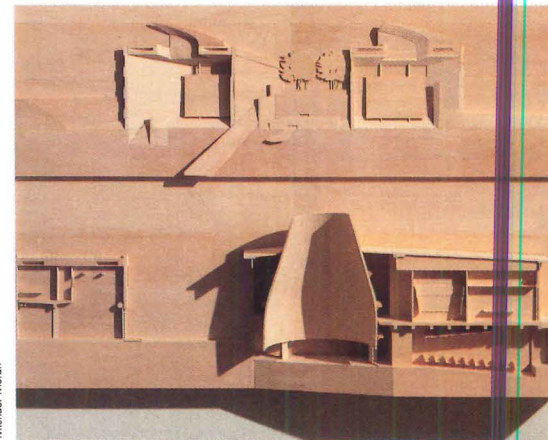
**Philip Arcidi**



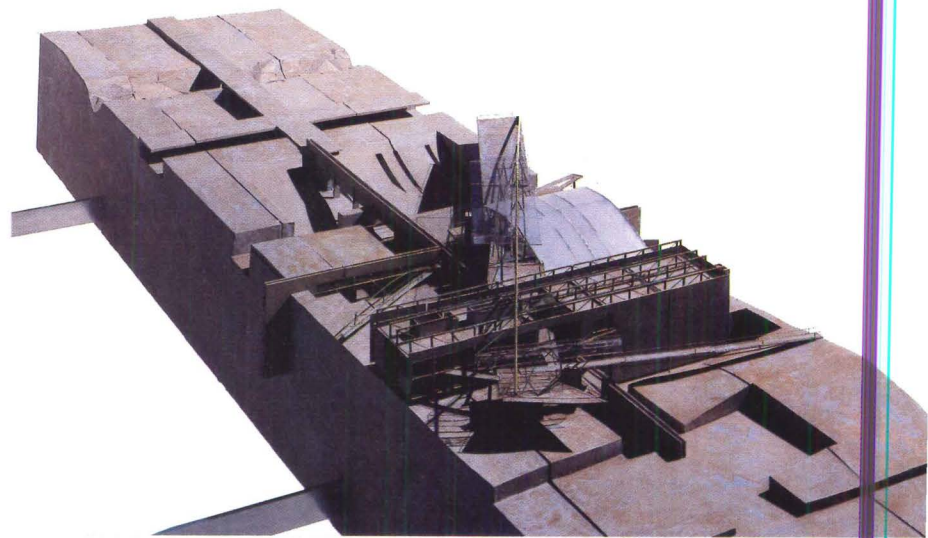
10 ARTS PARK CENTER; DESIGN TEAM LED BY TOD WILLIAMS & BILLIE TSJEN



11 ARTS PARK CENTER, FIRST FLOOR (BOTTOM) AND GROUND FLOOR (TOP)

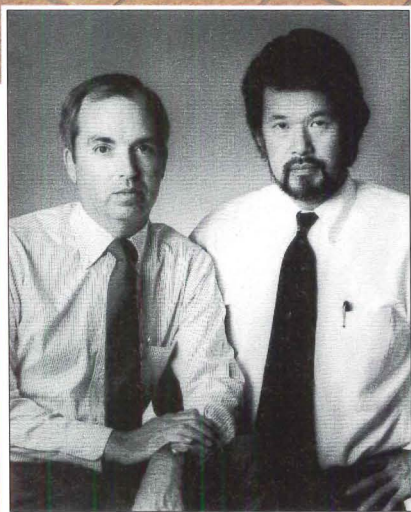


12 ARTS PARK CENTER, SECTIONS THROUGH EXHIBITION HALL WITH CONOIDAL SPACE (BOTTOM) AND GALLERIES AND COURTYARD (TOP)



13 PERFORMING ARTS PAVILION; DESIGN TEAM LED BY MORPHOSIS





Robert L. Outland, AIA &  
Kiyoshi Murata, AIA  
Murata Outland Associates

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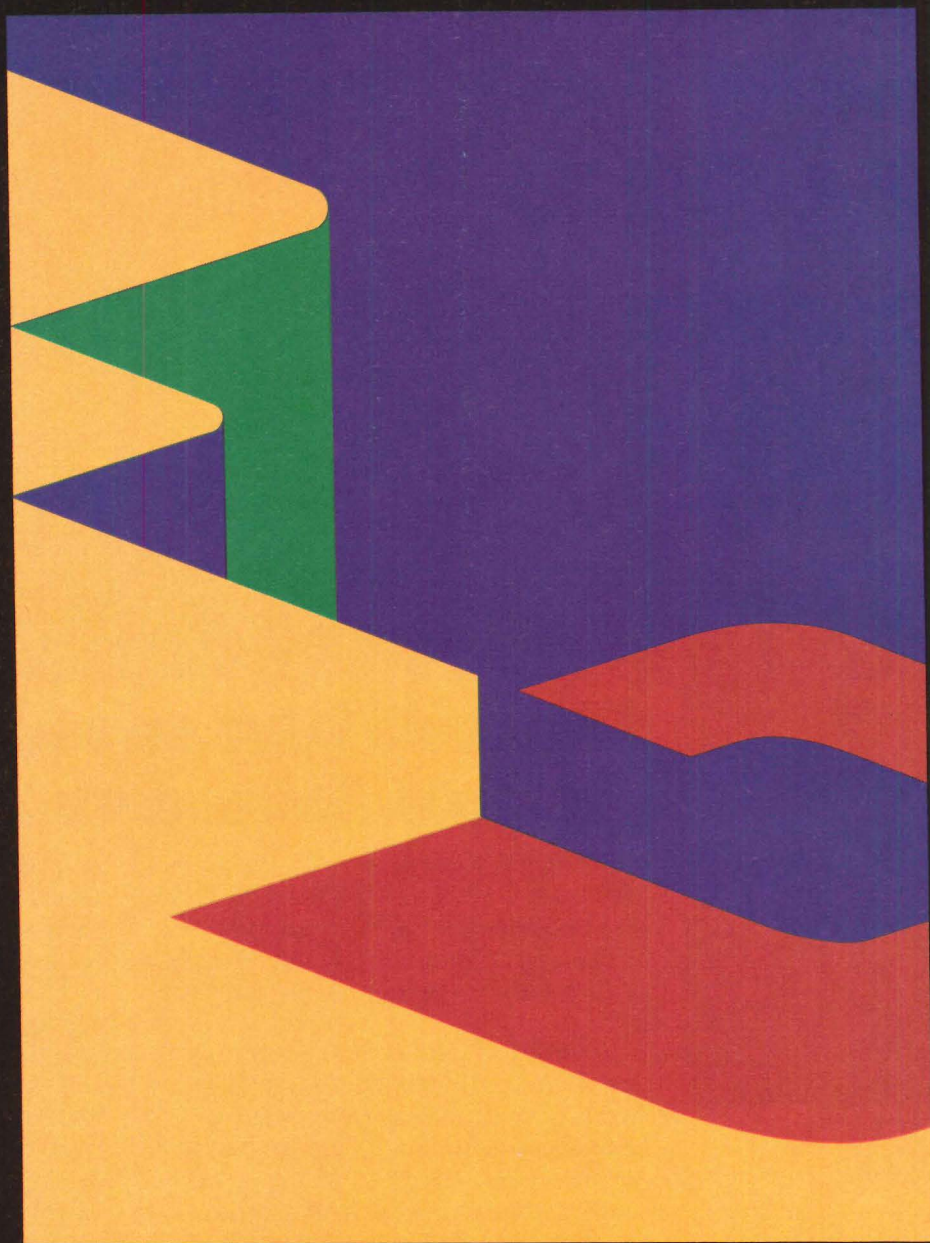
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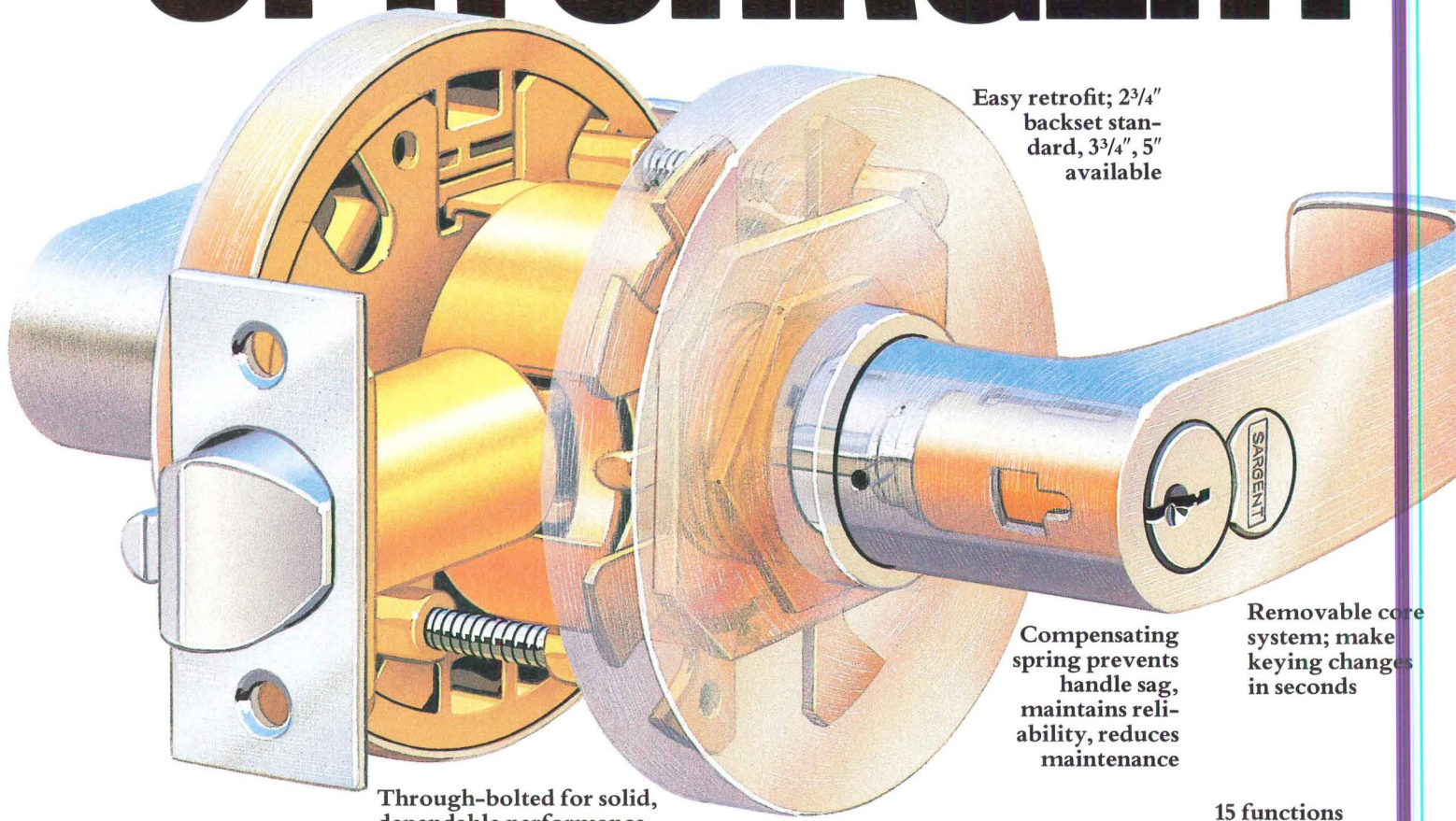


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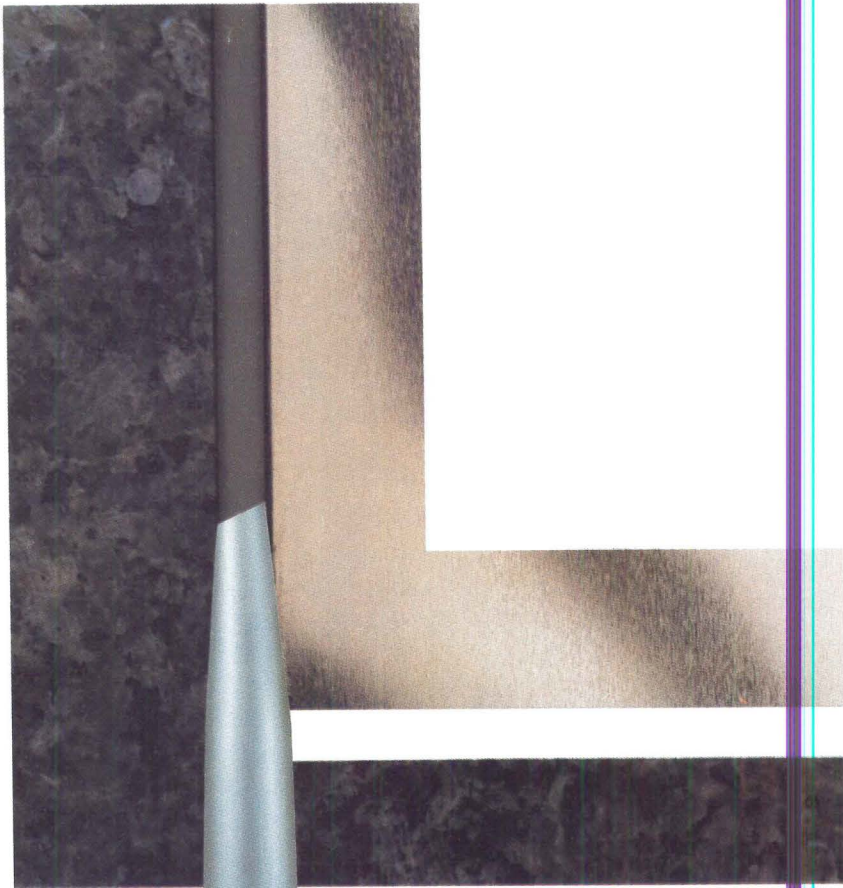
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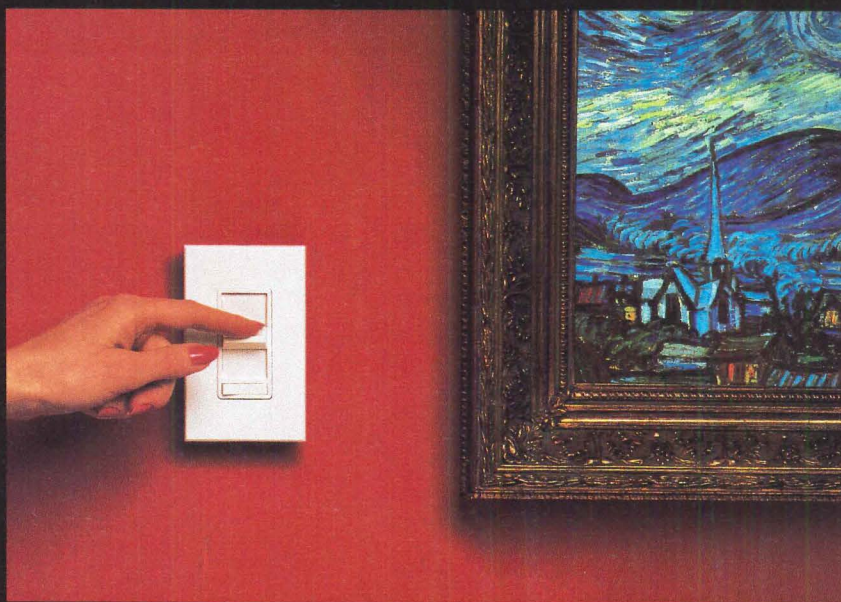


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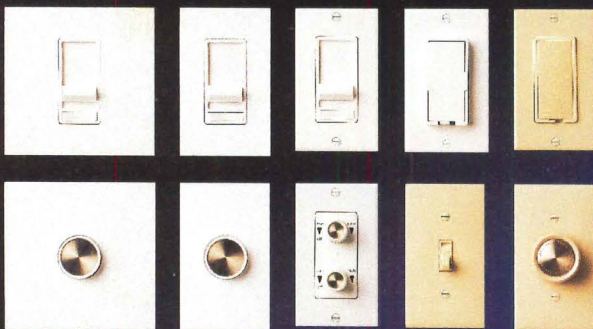


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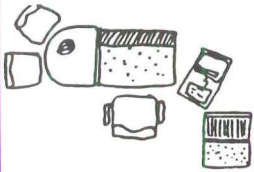


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# New Products and Literature



## Herman Miller's new furniture line forms a radical response

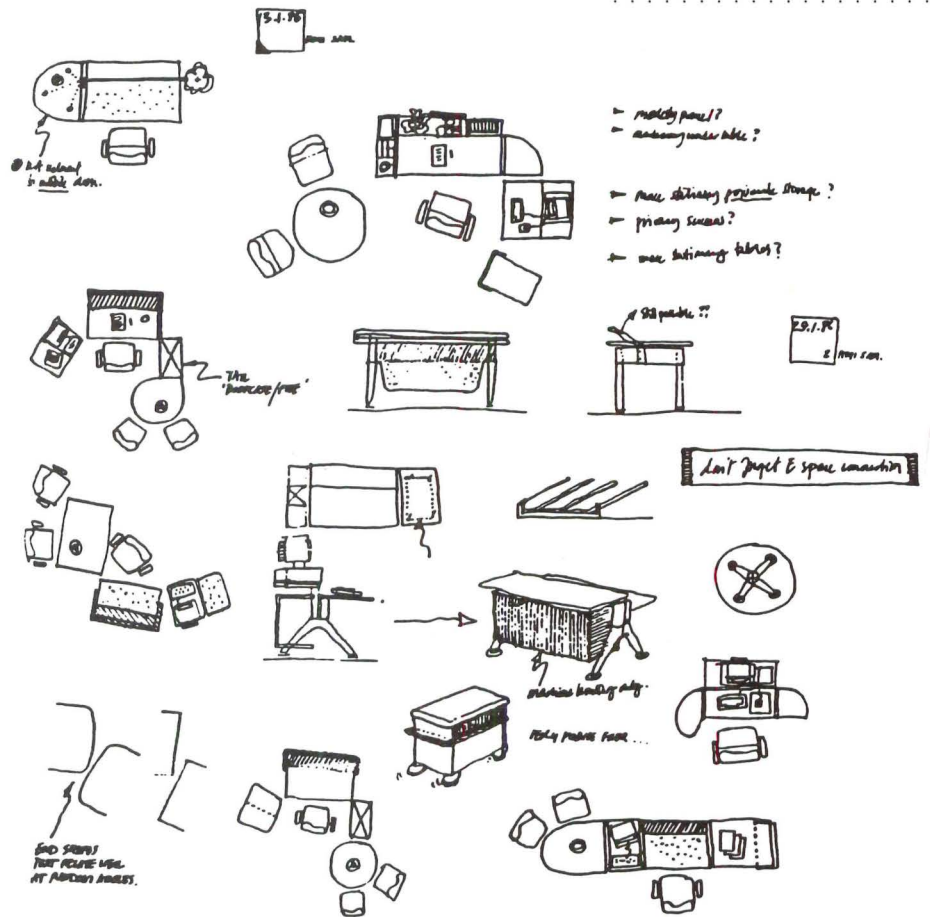
to the vast changes affecting the workplace.

After five years of research and development, Herman Miller is set to introduce a comprehensive collection of freestanding office furniture that promises to break new ground for the industry – in the same way that the company's Action Office of 1968 led to the wide dissemination of panel systems as we know them. "Relay," as the new line is named, comprises a family of some 150 components, arrayed in 18 product categories, ranging from full-fledged furniture to accessories.

Relay is designed so that each piece of furniture can be used independently – a departure from the interlocking panel system mindset. "It means furniture that can be easily reconfigured without a whole lot of strategic effort," says Susan Brondyke, a product manager at Herman Miller. As such, Relay addresses the trend toward increasingly "horizontal" corporate hierarchies, and the growing emphasis on project-oriented teamwork (see Perspectives, p. 137). "The scene, at least in part, is one of many self-motivated individuals working on many different kinds of tasks, in many different, personally-evolved ways, using [diverse] media and equipment," explains Geoff Hollington, the English industrial designer who developed Relay from inception through production.

The decision to go with freestanding furniture was influenced also by an emerging consensus on the need to "humanize" the automated office and to allow for personalization of the individual workspace – processes that would promote job satisfaction, environmental psychologists claim, and consequently increase productivity. Hollington's approach was to break away from the ubiquitous office furniture derived "less from function than thoughtless expectation," and rethink how work gets done and which physical components were needed to accommodate each activity. The process yielded what Hollington calls "new animals," chief among them the High-Performance Desk (HPD). Its slightly sloped work surface is height adjustable, allowing users to work standing. One wing tilts to form a display shelf. In addition to the "new animals," Hollington reinterpreted familiar furniture types such as end tables, credenzas, and bookcases. Given the long hours professionals spend in the office, it seemed important to make it a "pleasant alternative to home."

"SAM is less Cartesian in its demands, more forgiving in its 'adhocery,'" says Hollington, referring to the codename under which Relay was developed. "I have always thought of this new product as a radical design, and I hope it will be seen as just that." **Ziva Freiman**

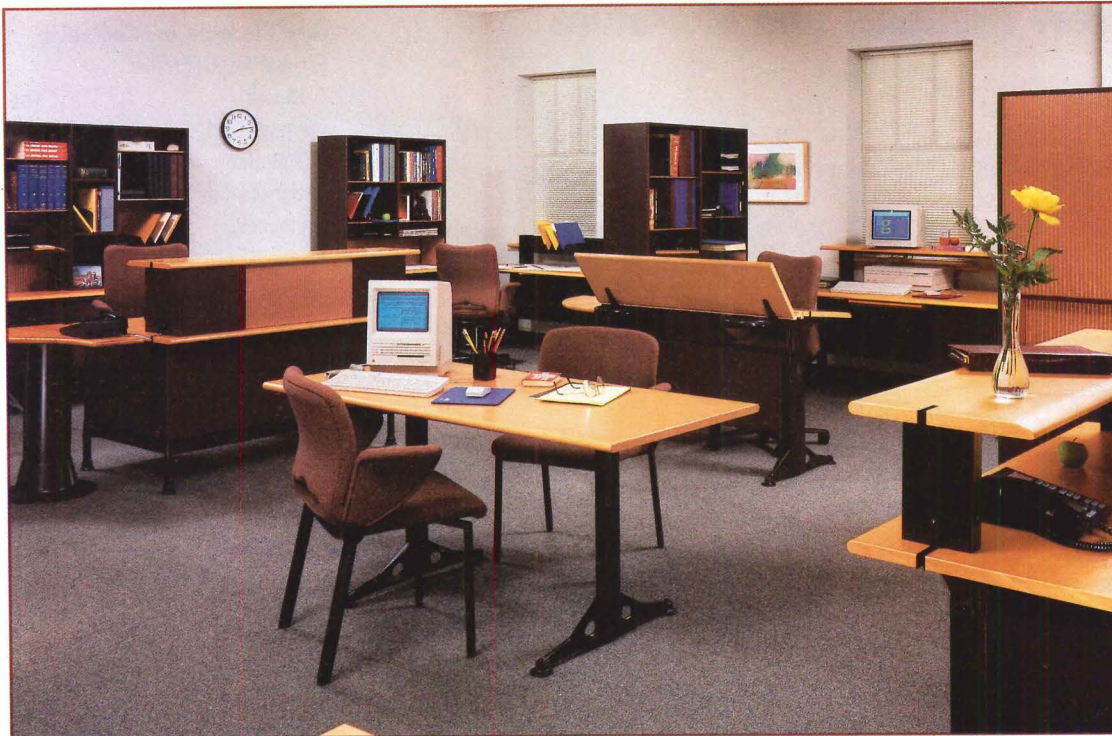


Relay constitutes a "soft system," in which individual pieces simply "dock" together. Hollington's early design sketches illustrate its inherent versatility. (Circle 148 on reader service card)

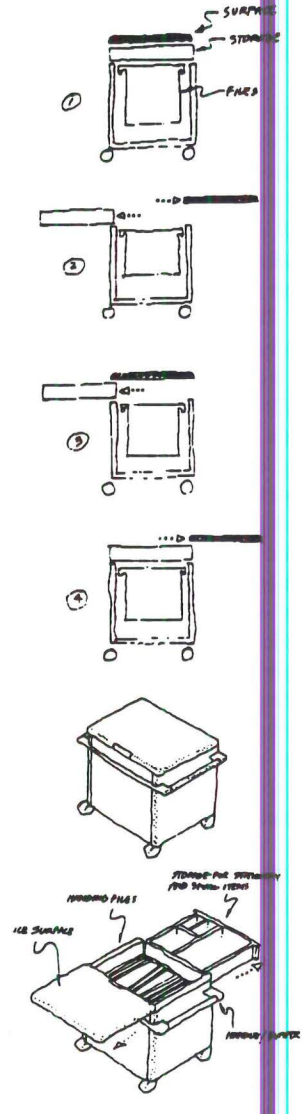
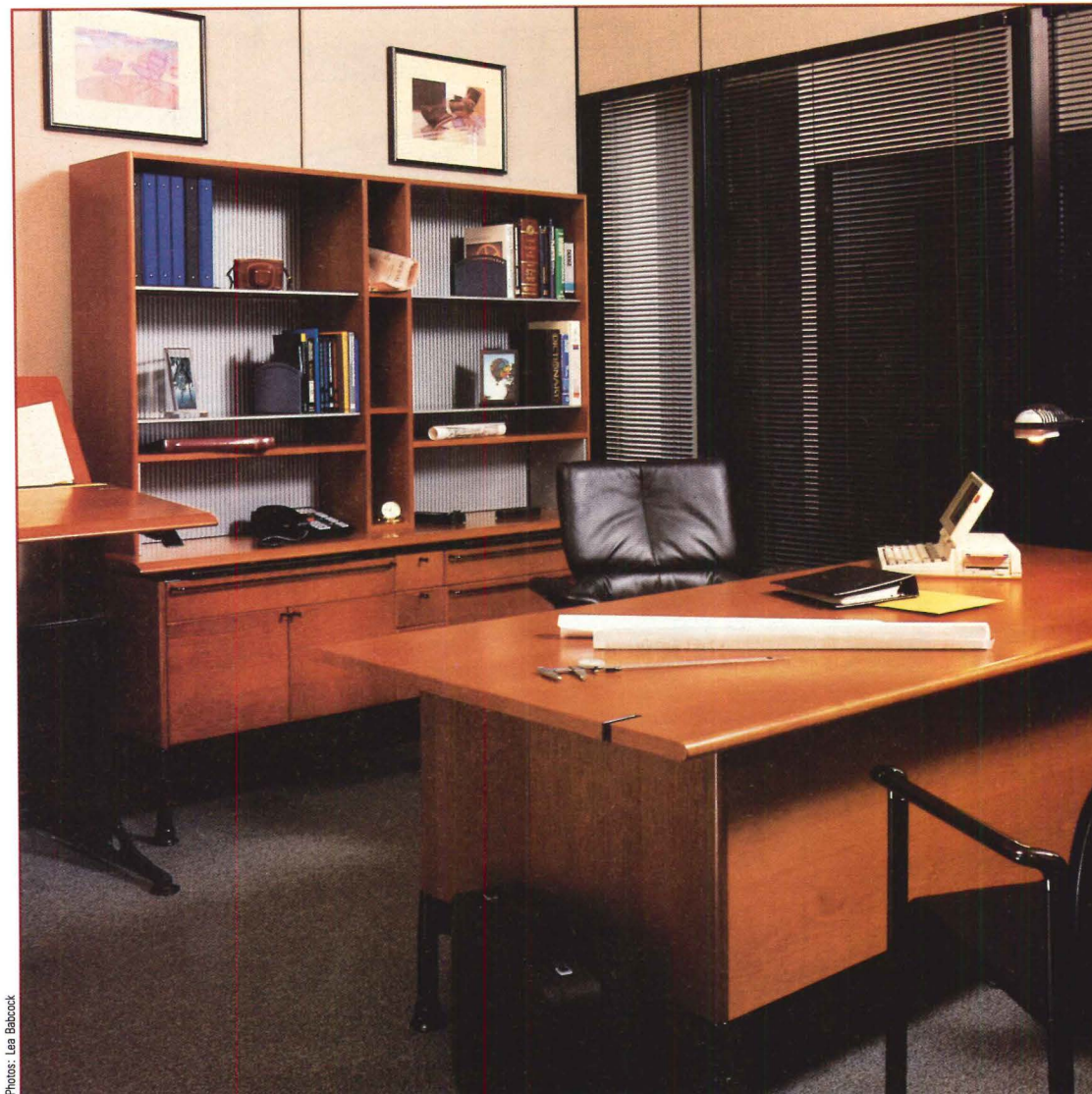
### New Products and Literature

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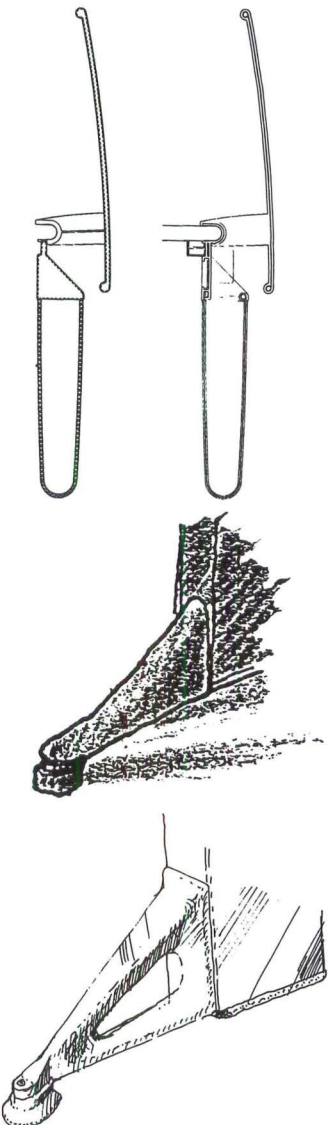
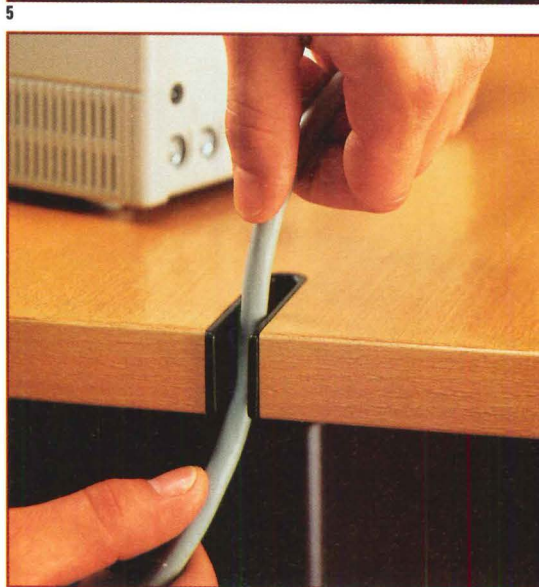
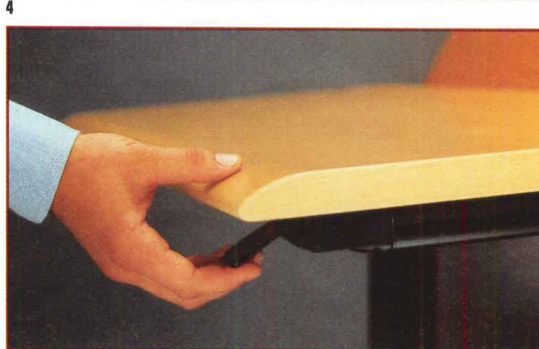




The new furniture is intended for use in both enclosed (2) and open plan (1) offices. In the latter, defining territory is a key issue. Some of the partitioning is accomplished with Relay's tall bookcases or through limited integration with compatible panel-system elements. In addition, Hollington introduced a lightweight folding screen (see preceding page, bottom right) and bollards, borrowed from the streetscape and reinterpreted as interior boundary markers. Herman Miller's Color, Material and Finish group came up with a variety of wood, laminate, and metallic options capable of differentiating between all classes of workspace, from executive to clerical - without the attendant disparities in quality and style. Below, Hollington's sketches for the "Puppy," a compact cabinet on wheels (see also fig. 4) that functions as a personal mobile "mini-office."







.....  
 "We believe it is time for the computer to become a tool. . . rather than driving all aspects of the environment's design," asserts Susan Monroe, the Herman Miller design product manager who oversaw the development of the collection. At the same time, the new furniture is designed to accommodate all levels of office automation. There are three ways in which it is equipped for wire-management. On the scale of a single workstation, each piece is equipped with a two-channel wire chase, grommets, and in some cases mouseholes; the High Performance Desk incorporates a removable wire trough with an optional six-way power tap. Beyond these, Relay features a "powered end table," whose thick cylindrical base is designed to fit over a floor monument, and which accommodates receptacles, phone jack, data ports, and switching. When using this method, other Relay components are docked around the end table. In facilities that do not deliver power and data through the floor, Relay in the open plan would need to be integrated with existing panel-system components for secondary distribution. PC's can stand on exposed desks thanks to one of the Relay accessories known as the "saddlebag" (see drawings of section and side elevation, fig. 8), a combination of trough and shield made of perforated metal, which is mounted behind the computer to hide the "spaghetti."  
 .....

.....  
 One of the great challenges facing Hollington was how to articulate mass-manufactured pieces without losing the qualities that distinguish furniture from "equipment." This was accomplished through much refined detailing, as in the "slightly decorative" cast steel legs (9); the purple-lined grommets (6, 7); exacting profiles edging the HPD's tilting display shelf (3); the minimized, accessible, and easy-to-use mechanism to adjust its height (5); and the familiar drawer pulls on elements such as the credenza (2, left), which harken to traditional furniture design.  
 .....

Photos: Gary Knoll



### Preview: Designer's Saturday

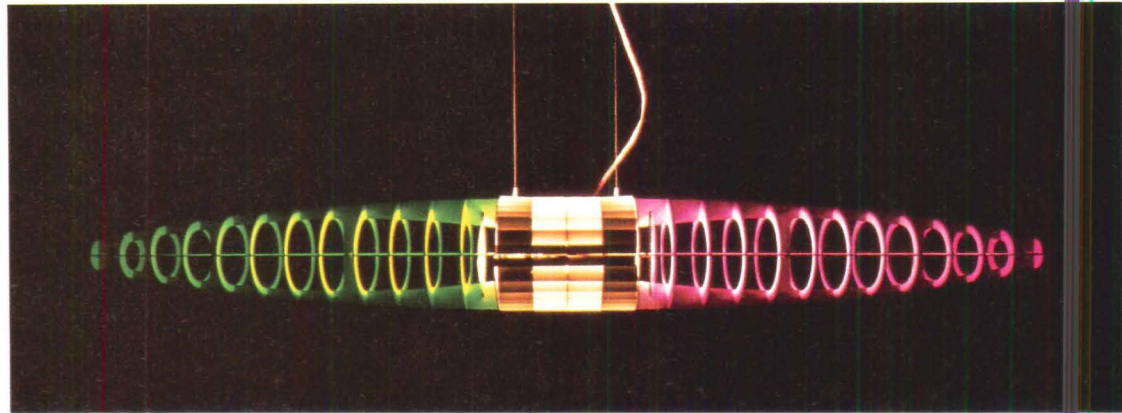
Two seminar programs are scheduled for this year's Designer's Saturday to be held in New York, October 11–13: "The Globalization of Design" (at the A&D Building in Manhattan) and "Crosscurrents" (at the International Design Center New York in Long Island City).

Among program offerings are: "Save-the-Planet Design," moderated by *Interiors* editor Paula Rice Jackson (October 11, 12:00–1:00 p.m., A&D Building 28th Floor); "Clients and Designer's," moderated by Ellen Shapiro (October 11, 2:00–3:00 p.m., IDCNY); "Beyond Disney's World: Learning From Orlando," moderated by P/A Senior Editor Ziva Freiman (October 11, 4:00–5:00 p.m., A&D Building, 28th Floor); "Designed in Germany," sponsored by the German Design Council and moderated by *Interiors* Editor Stanley Abercrombie (October 12, 3:30–4:30 p.m., IDCNY); "The International Architect: From Local Designer to Global Jetsetter," moderated by architecture critic Joseph Giovannini (October 12, 3:30–4:30 p.m., A&D Building, 28th Floor); a talk by Aldo Rossi, (October 12, 4:30–5:30 p.m., IDCNY); and "Designing Women," moderated by *New York Woman* Editor Betsy Carter (October 13, 10:00–11:00 a.m., A&D Building, 28th Floor).

This month's New Products and Literature section is devoted to Designer's Saturday product presentations. Technics-Related Products and Building Materials are on pages 179 and 186, respectively. ■



1



2



3

#### 1 Table by Matthew Hilton

Arched cast aluminum legs support a birch-ply veneered top in the Surfsh Table by Matthew Hilton. The table is 59" × 13 1/2" × 21 1/2". Palazzetti.

Circle 100 on reader service card

#### 2 Suspension Lamp

Titania, for direct and reflected lighting, is in black or aluminum and comes with a set of interchangeable color filters. Artemide.

Circle 101 on reader service card

#### 3 Chairs by Michael Graves

Club and pull-up chairs and settees can be specified with enclosed or cherry or maple arms and legs. Dunbar.

Circle 102 on reader service card





4



5

#### 4 Sofa by Oscar Tusquets

A new sofa by Oscar Tusquets, called Ali-baba, is available with two different rugs or upholstered without a rug. ICF.

Circle 103 on reader service card

#### 5 Ballet Table

The Ballet Table is designed with "X" based tables for residential, commercial, and institutional use and "K"-based training/seminar tables. Vecta.

Circle 104 on reader service card

#### 6 Lounge Seating

Cherry or maple bases and over 200 standard leather and fabrics are offered for Brighton lounge seating. Gunlocke.

Circle 105 on reader service card



6

#### 7 Jacquard Fabric

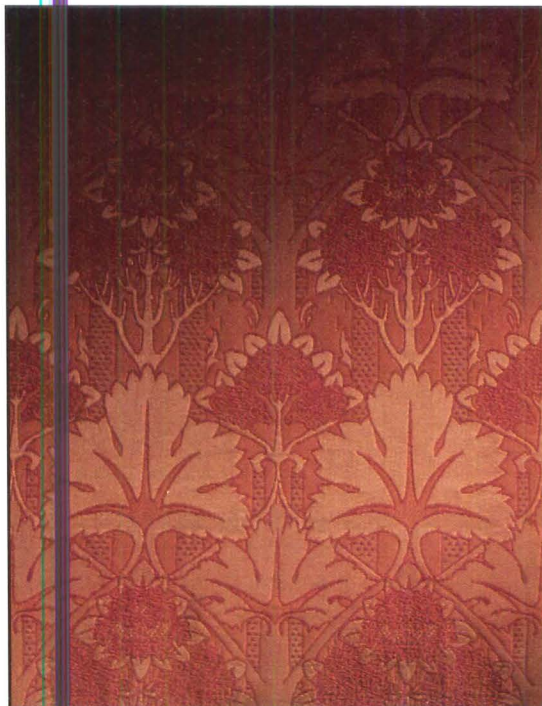
A jacquard fabric called Brighton is satin and double cloth-combined with high-relief brocading. Jack Lenor Larsen

Circle 106 on reader service card

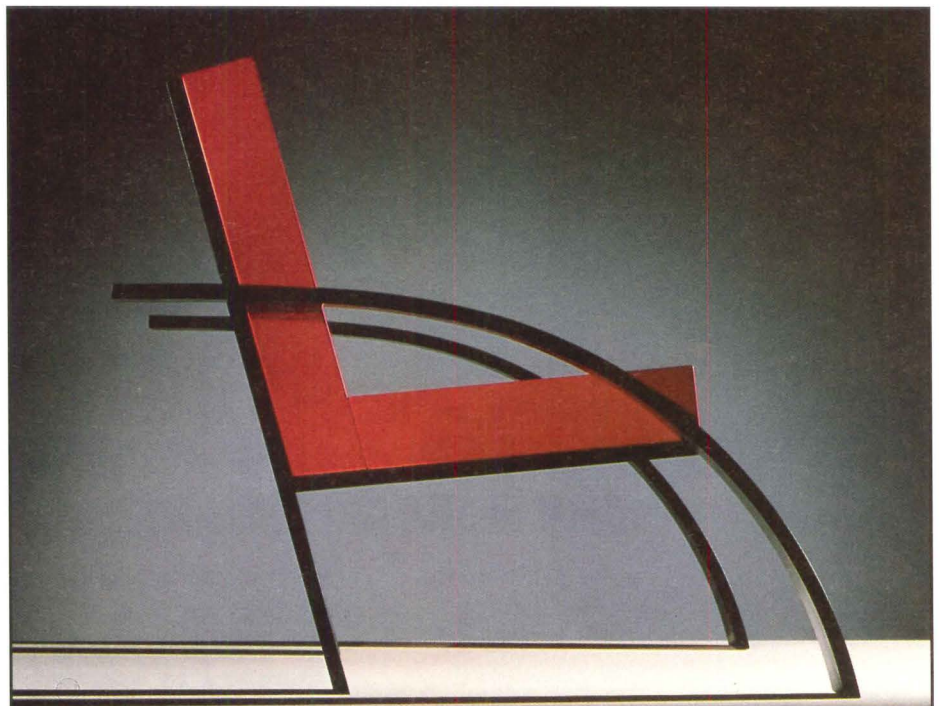
#### 8 Chair by Aldo Rossi

Parigi Seating is available as an armchair or two-seater sofa. Seat and back are upholstered in red saddle leather or red polyurethane foam. Unifor.

Circle 107 on reader service card



7



8



.....  
**Designer's Saturday Products**  
 .....



**Table Line Expanded**

The Venue Table line now includes "R" base. Pedestal and four-leg bases are offered. Five standard colors and 25 optional powder finishes are available. KI.

*Circle 108 on reader service card*

**Modular Office Furniture**

A new 29-piece furniture group called the 6000 Series includes desks, credenzas, returns, and electronic work tables with wood veneer fronts, panels, and rims, and laminate tops. Myrtle Desk.

*Circle 109 on reader service card*

**Conference/Dining Chair**

Carlyle is constructed of beech wood and is offered with high-gloss, satin mahogany, black, or natural finishes. Cumberland.

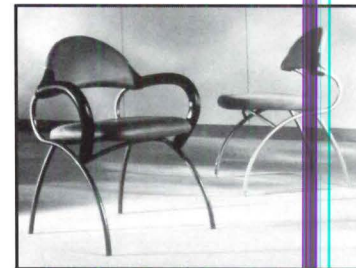
*Circle 110 on reader service card*



**File Pedestal**

This file system – with lateral, vertical, legal or letter-size options – can be specified with or without casters, free-standing or suspended. Files are 18-, 22-, or 28-inches in depth and 15- or 18-inches wide. Meridian.

*Circle 111 on reader service card*



**Metal-framed Chair**

The N Chair, designed by Perry King and Santiago Miranda, is available as a metal-framed side or arm chair suitable for general office or commercial applications. Arms and back are finished with black self-skin urethane. AI.

*Circle 112 on reader service card*



**Wooden Table Collection**

The Arclinea Table Collection has a five panel "X" base configuration. Oak, walnut, and cherry veneers and 10 finishes are offered. Dar/Ran.

*Circle 113 on reader service card*

*(continued on page 168)*

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Employee Cafeteria, Computer Associates International, Inc., Las Colinas, TX. Design by Scott Strasser, CRS/Stirrine, Inc. Dallas.

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(continued from page 166)

### Ribbed Texture Carpet

Edmonton 28 is a loop carpet of Anso IV® nylon. Available in 28 "moresque colorations," the carpet has a ribbed texture and soil-and stain-resistant qualities. Allied Fibers.

Circle 114 on reader service card

### Sled-based Side Chair

The Paragon® Chair line now includes a task-sized sled-based sidechair. Shaw/Walker.

Circle 115 on reader service card



### Desk Series

A desk with wood horizontal slatting is part of the 7400 Office System. It is available in open-pore mahogany, black, and natural ash. Pace.

Circle 116 on reader service card

### Visual Communications Boards

Modular Mauro Training Boards have a metal porcelain board, powder-coated finish, and tip-out accessory tray, and are designed for use with any continuous length board. Howe Furniture.

Circle 117 on reader service card

### Upholstered Lounge Series

Lounge chairs, settees, and sofas make up the Luyk Lounge Series. A selection of fabrics and leathers can be specified. Mueller, A Haworth Company.

Circle 118 on reader service card



### New Fabric Program

Twelve patterns in 152 colorways will be presented. A new panel fabric called Frizé will also be offered.

GF Office Furniture.

Circle 119 on reader service card



### Woven Wood Side Chair

Hand-woven wood seat backs are inserted into a hardwood maple frame available in a variety of stain finishes. Upholstered seats are standard. Brickel.

Circle 120 on reader service card



### Bonded Bronze®

Wave and chevron patterns have been added to the Bonded metals collection. Bonded Bronze® is suitable for cladding walls, columns, elevators, planters, and doors. Forms + Surfaces.

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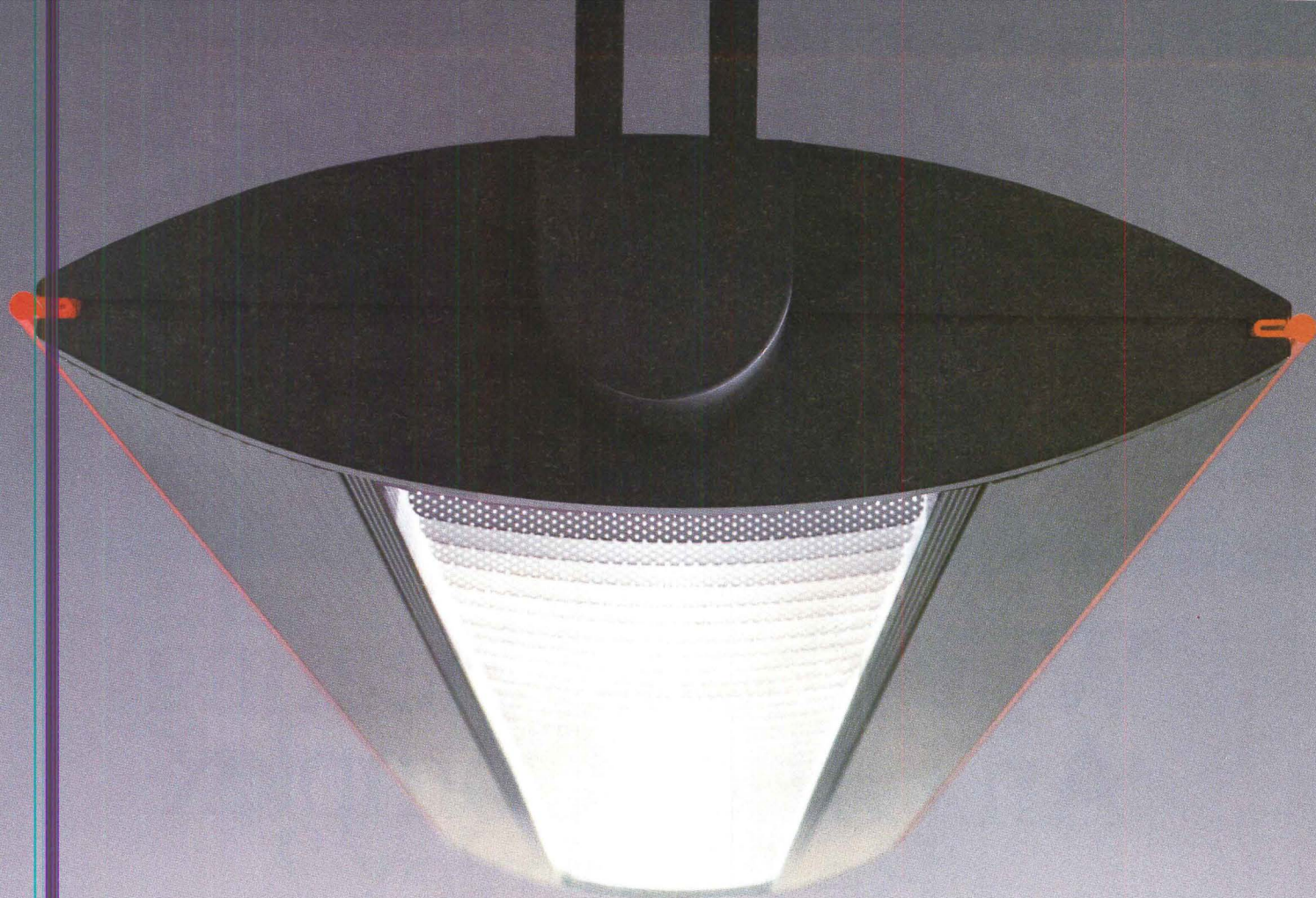
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Circle No. 333

(continued on page 172)





## Wings of Light. Zumtobel.

Spheros™...Harmony of indirect and direct light. Providing optimum performance without intrusion on interior design. A wide array of options in light distribution, louvers and accessories affords flexibility in the final composition.

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# Why Should Heating An Office Complex Be Complex?

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Underfloor radiant heating is reliable, economical, trouble-free, vandalproof and, best of all, comfortable. It's a difference people can feel — and an exciting point of difference for a property, whether its occupants will be headquarters and sales offices or retail shops and restaurants.

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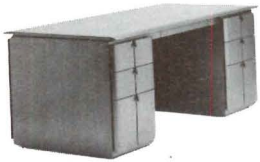




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(continued from page 168)



### Wood Pedestal Desk

Double pedestal desks, desks with extensions, credenzas, workwalls, wardrobes, bookcases, and conference tables make up the Rialto Collection. Metal pulls and 18 wood finishes are standard. Metro.

Circle 122 on reader service card

### Acoustic Ceiling Panels

Classic Motifs – with medallion and filigree patterns – have been added to the Cirrus acoustic ceiling family. Panels are 24" x 24" x 3/4", and are 9/16" T-bar grid compatible. Armstrong.

Circle 123 on reader service card

### Vertical Surface Fabric

Scape is a 100 percent polyester-woven fabric available in eight colors. Steelcase.

Circle 124 on reader service card



### Two-piece Stacking Chair

Attiva One is a weight-responsive stacking chair with a polypropylene shell, and steel rod frames in polished chrome or a choice of 15 powder-coated colors. Thonet.

Circle 125 on reader service card

### Patterned Fabric

A new fabric by Linda Thompson is called Woodstock. The 100 percent Trevira FR fabric, available in 54- and 66-inch widths and 15 colorways, is applicable as wall-covering, drapery or upholstery.

Pallas Textiles.

Circle 126 on reader service card



### Office Chair Line

Dale Fahnstrom and Michael McCoy have designed the Bulldog Chair in versions from executive to side chair. Four optional control packages and 55 standard upholstery fabrics and a variety of leathers may be specified. Knoll International.

Circle 127 on reader service card



### Seating by Antonio Citterio

The transitional Sity seating collection by Citterio can now be ordered with bright "South American" colors. B&B Italia.

Circle 128 on reader service card

### Hand-carved Mahogany Chair

The Providence occasional chair has a cathedral arch back. Its seat is 18 3/4-inches high, and arm height is 28 inches. Davis.

Circle 129 on reader service card

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Circle No. 362 on Reader Service Card

(continued on page 176)



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by LSI LIGHTING SYSTEMS

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Circle No. 352



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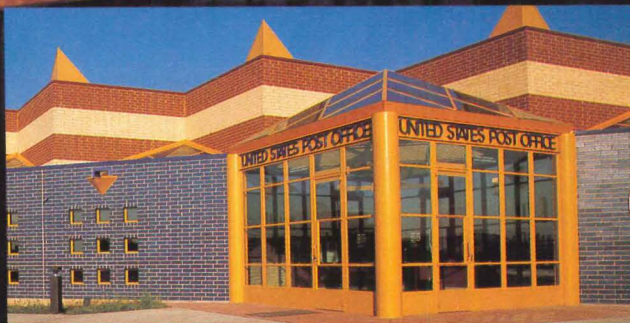
Carol Ross Barney, AIA  
Ross Barney + Jankowski, Inc.  
Chicago, Illinois



The banner that is the beauty of "Old Glory" sings throughout a suburban Chicago post office, designed so customers could locate the building easily in a warehouse-filled industrial park.

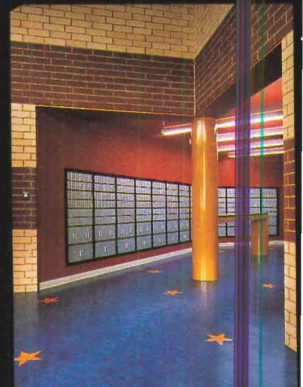
Inside, all-natural Forbo Linoleum provides the perfect medium to repeat the massive sweep of the Stars 'N Stripes, in a highly resilient floor covering that inlays beautifully without the need for heat welding, and is very easy to maintain.

Originally the architect planned to use terrazzo for the floor. Forbo Linoleum not only came in at about half the cost, it offered a versatile palette of 36 colors that never wear off the surface.



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Carol Ross Barney, AIA, is founding principal of Ross Barney + Jankowski, Inc., a Chicago-based architectural firm. For a complete case history and full-color literature, contact Forbo Floor Coverings—today.



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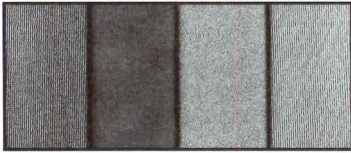
**SOLIDEX**  
SOLID SURFACES



Circle No. 326



(continued from page 172)



**Worsted Wool-like Upholstery**

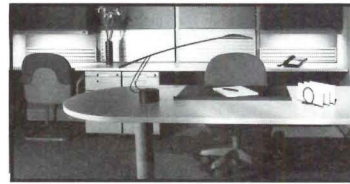
Nylon Classics upholstery collection "simulates" the texture and appearance of worsted wool. The 100 percent worsted spun nylon is in 64 colorways. Maharam and Vertical Surfaces.

Circle 130 on reader service card

**Office Chair**

Designer Series chairs have full-function knee tilt, articulating back with height adjustment, and a contoured seat. Domore.

Circle 131 on reader service card



**Systems Furniture**

Equation™ System phase two has lay-in vertical cable management and compartmentalized raceway. Westinghouse Furniture Systems.

Circle 133 on reader service card

**Fruit-inspired Fabric**

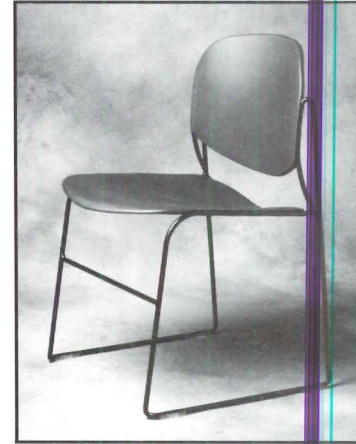
Pomona is a tapestry fabric said to be inspired by Gaugin's Tahiti period. Arc-Com.

Circle 132 on reader service card

**Andrée Putman Jacquards**

Two new jacquards, Jussieu (a wool/cotton brocade in ten colorways) and Odeon (a velvet upholstery in nine colorways) have been added to Putman's collection. Stendig.

Circle 134 on reader service card



**Stacking Chairs**

Ariel is an armless stacking chair that can be ordered with upholstered seat and back, epoxy paint finishes, table arm, book rack, and ganging guides. Allsteel.

Circle 135 on reader service card

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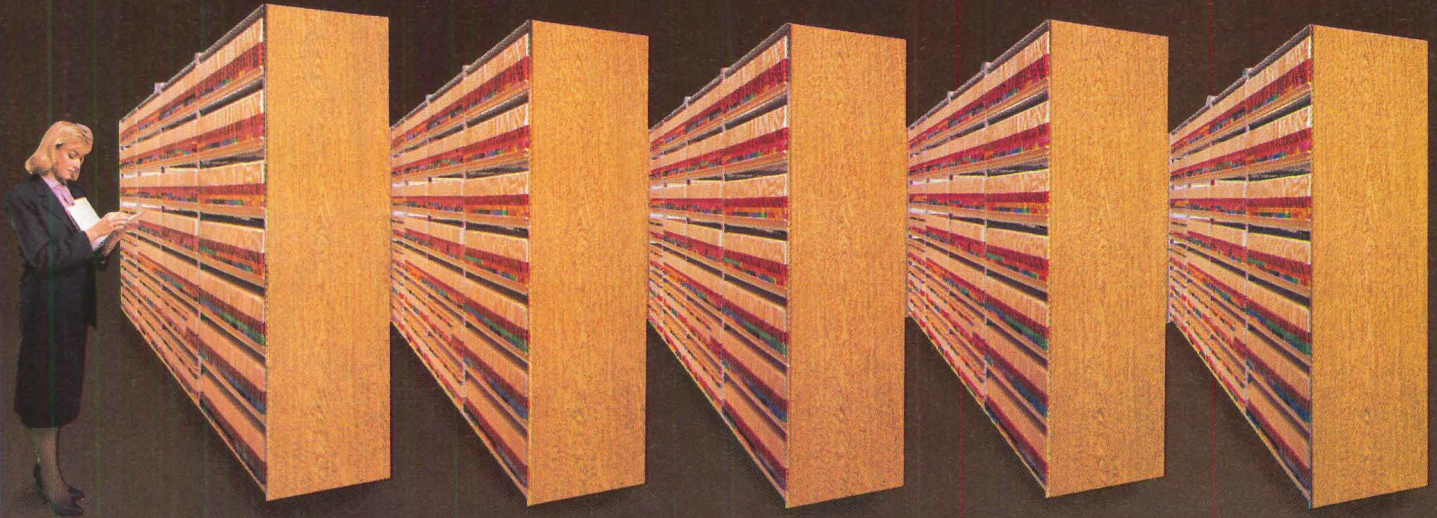
Starry Hopper is part of the "Hopper Family" of seating. Seats can be upholstered in one or two fabrics, leather, or a combination; wood, stainless steel or tube frames can be ordered. Kinetics.

Circle 136 on reader service card

(continued on page 179)



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9 1/4



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OUTSIDE

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in the darkness, a light.

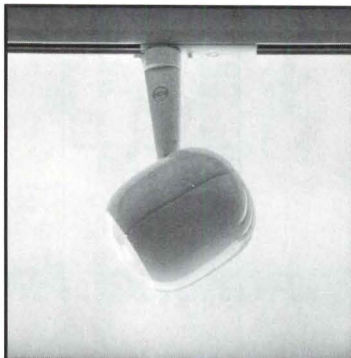
Beghelli Inc. - P.O. Box 8053 - Jacksonville, FL 32216  
Phone (904) 6464416

Circle No. 350

Design: Eros Bollani



(continued from page 176)



### Compact Spotlights

Die-cast aluminum spotlights called Genesi (in white gloss or black finishes) have concealed wiring, convex safety lenses, and can be ordered with a swivel support stem. The light is sized for MR11 or MR16 or bare lamps. Reggiani USA.

Circle 137 on reader service card

### Technics-Related Products: Intelligent Office Components

#### Workstation Air

Individual workers can adjust the volume and velocity of air-flow through vents in access flooring with the Task Air™ Personal Comfort Control System. Tate.

Circle 138 on reader service card



#### Personal Climate Control

Personal Environments brings control of light, temperature, sound, and air circulation to individual workstations. Johnson Controls.

Circle 139 on reader service card

#### Personal Heater

A compact electric radiant heater uses 200 watts to heat an individual workstation. It can be attached to the kneewall under a desk or used as a free-standing portable. Aztec.

Circle 140 on reader service card

(continued on page 182)

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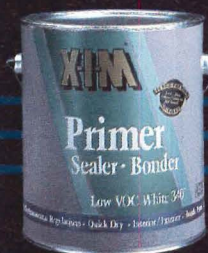
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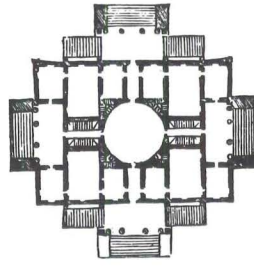
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# Andrea Palladio International Award for Architecture

NOTICE OF ARCHITECTURAL COMPETITION 1991

THIRD EDITION

- 1 The «Andrea Palladio» International Prize for Architecture, promoted by the firm Caoduro Rooflights SpA, Cavazzale (Vicenza) Italy, under the Patronage of the President of the Italian Republic, the President of the European Parliament, and of the City of Vicenza, is held every two years.
- 2 The competition is open to registered architects and engineers of all nationalities, who have not obtained 40 years of age on January 1st, 1991. Each candidate is limited to one project.
- 3 The winner of the competition will be selected by a Jury of 4 judges appointed by the sponsors of the competition. The Jury will elect a chairman who is entitled to a double vote.
- 4 The competition is open to architectural works completed and built by January 1st, 1991.
- 5 A prize of 70.000.000 Italian Lire will be awarded to the winner. The prize money will be remitted by a local bank. The Jury may also award ex aequo prizes of portions of the total prize money.
- 6 Each candidate must submit photographic documentation addressed to Caoduro S.p.A., Via Chiuppese 15, I-36010 Cavazzale (Vicenza) Italy, (Tel. 0444/595900, Fax 0444/596761) and postmarked no later than January 31st, 1991. This documentation should consist of a max. 10 slides (24x36 mm) each to be marked with a progressive number and the name of the candidate, and a technical illustrative report (3 type-written pages, double spaced on standard paper). This material will not be returned to the candidate.
- 7 Each candidate must submit together with the above mentioned, a current curriculum vitae, an official birth certificate, and proof of being a registered architect or engineer.
- 8 By June 15th, 1991, the Jury will announce the names of the candidates chosen for participation in the final selection process. They will be invited to send copies of their works for final selection and the exhibition in Vicenza. The Jury will select the winner of the competition from among those candidates invited to exhibit. The decision of the Jury will be final and announced on a date no later than October 15th, 1991.
- 9 The candidates selected to participate in the final exhibition must send all material at their own expense and risk, limited to 20 pieces whose dimensions should not exceed cm 70 vertically x 100 horizontally and mounted on rigid frames. Models and relief models may be submitted. All material used in the exhibition will be returned to the candidate at the candidate's own expense and risk at the conclusion of the show.
- 10 A catalogue of all entries in the exhibition will be published through the Electa Publishing Company, Milan.
- 11 The prize will be awarded at a ceremony to be held in Vicenza at the Olympic Theatre at a date to be announced.
- 12 The Jury of the «Andrea Palladio» International Architectural Competition for 1991 will be composed of:  
  
Prof. Francesco Dal Co  
Arch. Prof. Rafael Moneo  
Arch. Prof. James Stirling  
Prof. Manfredo Tafuri  
  
Architect Carlo Magnani will act as secretary to the Jury.

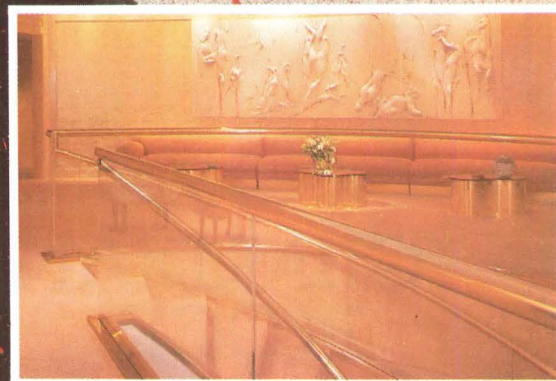
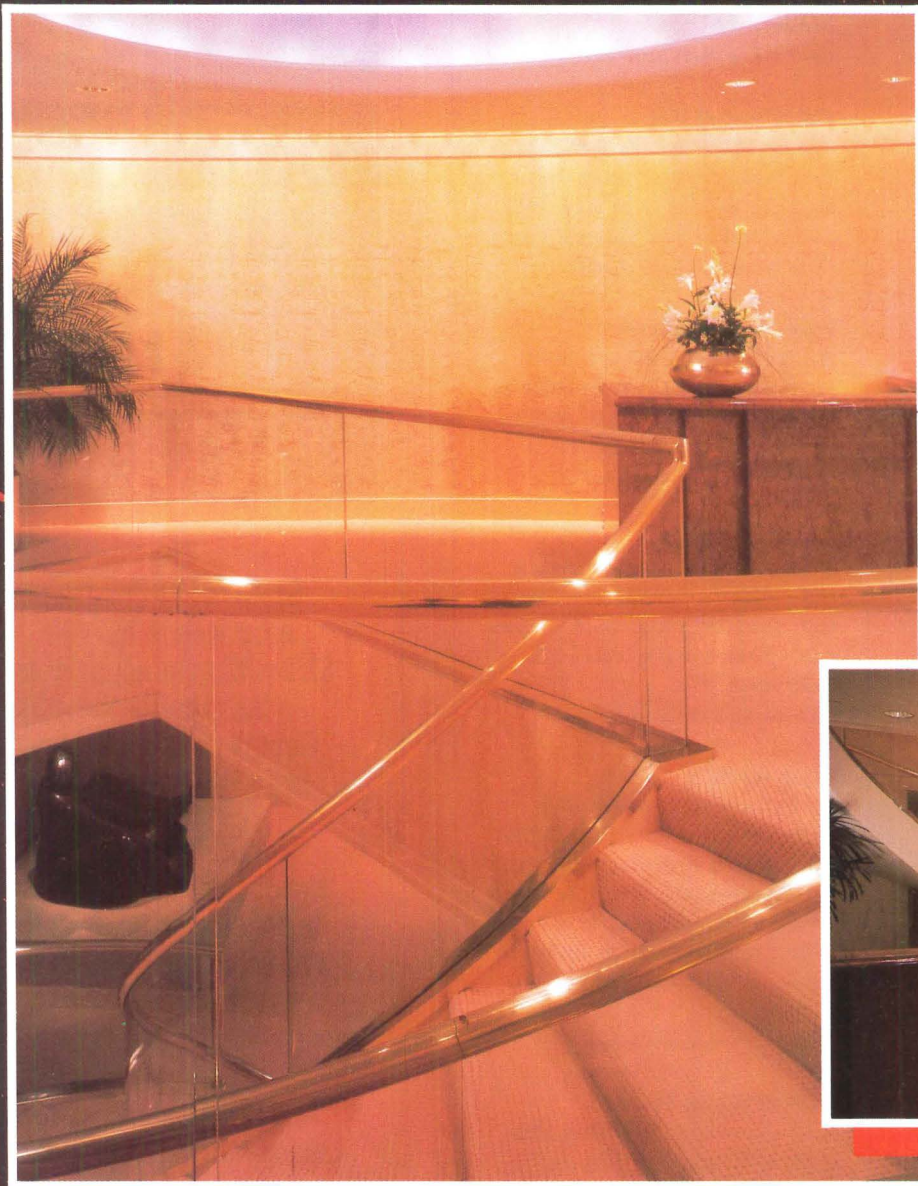
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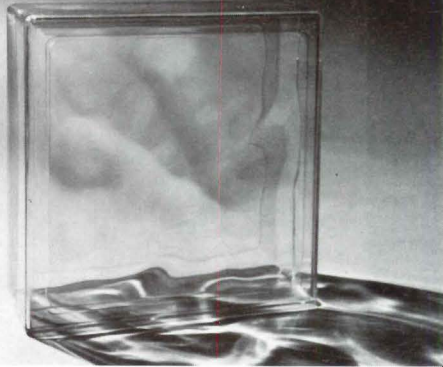
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(continued from page 179)

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### Cellular Flooring

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(continued on page 186)

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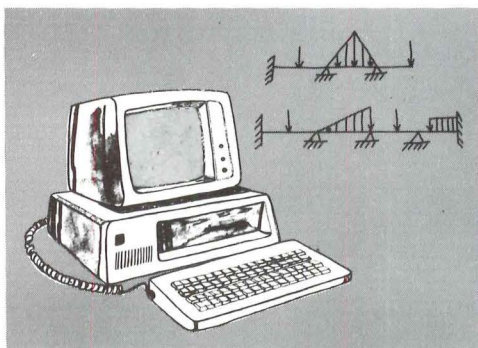
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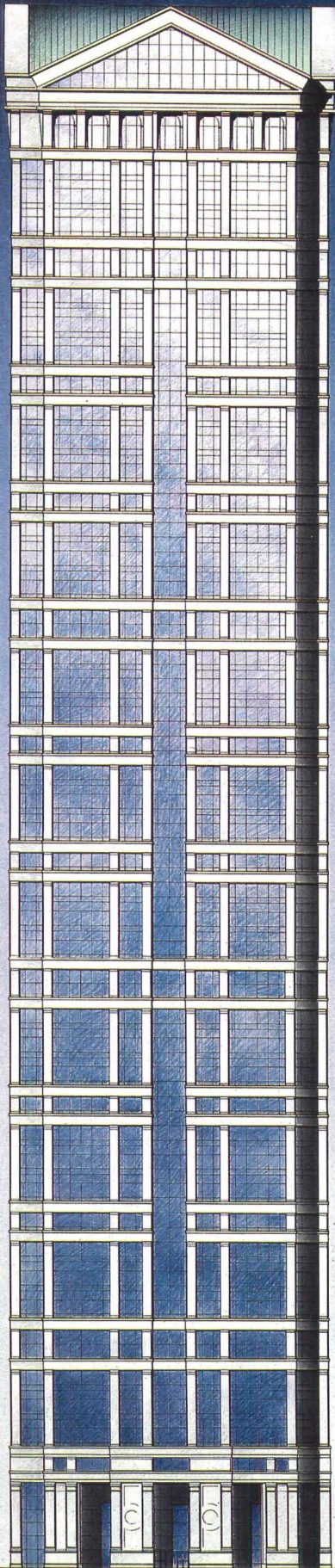
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## COMMUNICATING IDEAS ARTFULLY

We all use drawings and models when presenting a project, but how often do we consider their artistic merits or the effects they have on our design ideas? Communicating Ideas Artfully, an exhibition sponsored by the Steelcase Design Partnership and curated by P/A's Executive Editor, Thomas Fisher, offers some answers to those questions.

It examines the stylistic and conceptual differences among presentations. It questions the second class status of many renderers and model makers. And it shows how drawings and models affect the way we think about design.

In the exhibit original renderings and models from some of the country's leading practitioners are accompanied by a video that frames the questions.

The remaining venues

### BOSTON

September 19 - September 28, 1990  
Boston Architectural Center

### NEW YORK

October 9 - October 31, 1990  
Designers' Saturday  
Steelcase Design Partnership  
Symposium: Tuesday, October 16  
Fashion Institute of Technology

### LOS ANGELES

November 15 - December 14, 1990  
Pacific Design Center  
Symposium: Thursday, November 15  
Pacific Design Center

### STEELCASE DESIGN PARTNERSHIP

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DesignTex, Details, Metro, Vecta

West Wacker Drive, Chicago. Architects: Taller USA (Ricardo Bofill) New York. Renderer: Rodrigo Bilbao.  
Media: Ink, colored pencil, and air brush on paper.





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(continued from page 182)

### Building Materials

Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.

#### Bright & Associates, Venice, Calif.

(p. 96). Architects: Franklin D. Israel Design Associates, Beverly Hills, Calif. Walls: existing brick, plaster, bonderized sheet metal, plywood. Prefinished plywood: Fin Color Ply. Insulated skylight: Kalwall. Hollow core doors. Sisal carpet: Decorative Carpets. Wood frame and drywall partitions. Hinges: Stanley. Locksets: Schlage. Door closers: Norton. Panic exit: Schlage. Security hardware: Securitron. HID lamps: MWC. Interior lighting: Marlo, Prescolite, Pulsar, Holophane, Lightolier. Roof-top heating units: Trane. Desks: ICF. Chairs: Sitmatic, Palazzetti, ICF, Thonet. Rear projection system: Cibola Systems.

#### Maple Drive Restaurant, Beverly Hills, California (p. 116). Architects:

L. Anthony Greenberg, Venice, California; Widom Wein Cohen, Santa Monica, California. Paint: SinWall; red granite and gray cement plaster walls. Metal and steel studs with gypsum board interior and plaster exterior. Acoustical tile: Armstrong. Maple stage floor; Yosemite slate bar floor; flamed finish black granite exterior stairs; carpet: Bentley Mills; custom lighting fixtures: Tom Farrage (designed by James or Kirsten Bowen); cold cathode lighting: Archigraphics; halogen spots: Capri; maple tables: Bill Turnberg; casegoods, designed by James and Kirsten Bowen; pine finish: Kirsh Wood; wool upholstery: Architex; Naughahyde: Atlantic Architectural Textiles; sign: Legacy Signs.

#### M Loft, New York (p. 126) Designers:

Kolatan/MacDonald Studio, New York. Paint: Benjamin Moore. Exhibition track lights: Lightolier. Custom lights: Lazin Lighting. Two-door filing sys-

(continued on page 188)

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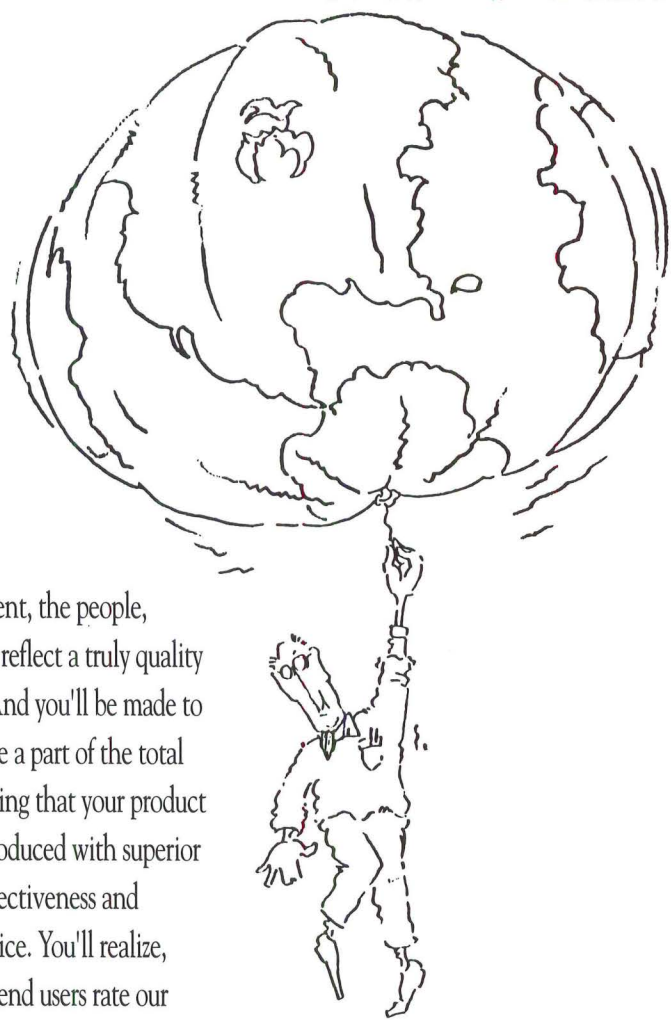
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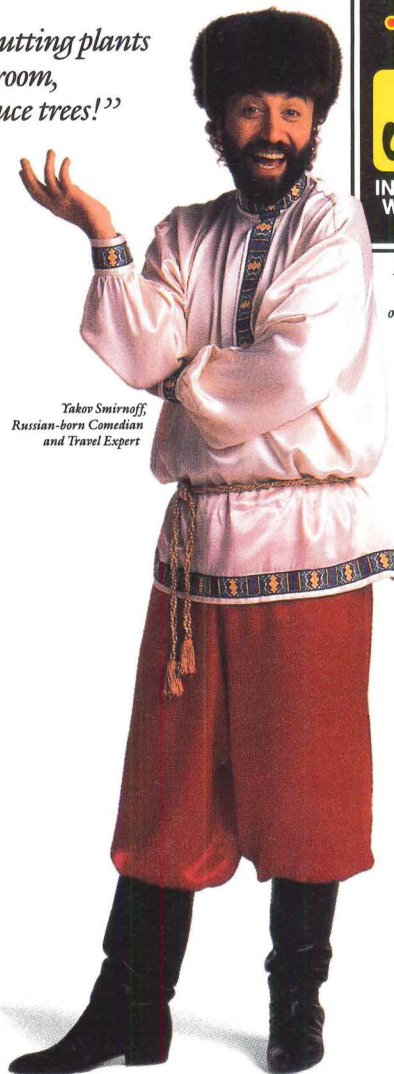
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(continued from page 186)

tem: Cole. chairs: Atelier International. Marine rigging: Interior Associates, London.

**The Model Apartment, New York (p. 128).** Architects: Smith-Miller + Hawkinson, New York. Wall sconces: Canal Lighting. Standing, wall-mounted, and desk-mounted lighting: Artemide. Rover car seat chair: Ron Arad. Aluminum folding funeral chairs: Empire Funeral Supplies. Dessau folding chair: Images. Desk chair: Domore. Folding bed: Murphy Bed Co. Window shades: Decor Arts/Peter Wallach. Track and scissor extension for television: Sinar-Bron.



**California Museum of Photography, Riverside, California (p. 130).** Architects: Stanley Saitowitz Office, San Francisco. Acrylic latex and semi-gloss enamel paints: Kelly Moore. Vinyl wall coverings: AFCO Brands. Galvanized/painted corrugated metal siding, ASC Pacific, Inc.. Gypsum wallboard: U.S. Gypsum. Metal studs, Western Metal Lath. Suspended ceiling of perforated corrugated metal: Alpro. Rubber flooring: Jason/Pirelli. Carpet: Bigelow. Rubber cove floor bases: Roppe. Fluorescent lighting: Wellmade. Recessed incandescent and fluorescent downlights: Halo. Suspended track lighting: Lighting Services Inc.. 4-ply built-up mineral surface roofing and batt insulation: Manville. Hollow metal doors and frames: Security Metal Products, Inc.. Birch-faced wood doors: Cal-Door. Storefront aluminum doors and frames: Kawneer. Clear view glass block: Pittsburgh-Corning. Finish hardware, locksets: Schlage, Hager, Builders Brass, Quality. Spray-on cementitious fireproofing: Monokote, W.R. Grace. Hydraulic elevator: Inland. Painted metal toilet partitions: Global Steel. Stainless toilet accessories: Bobrick. Roll-down projection screen: Da-Lite. Darkroom equipment, processing sink: Kreolab Laboratory Systems. ■






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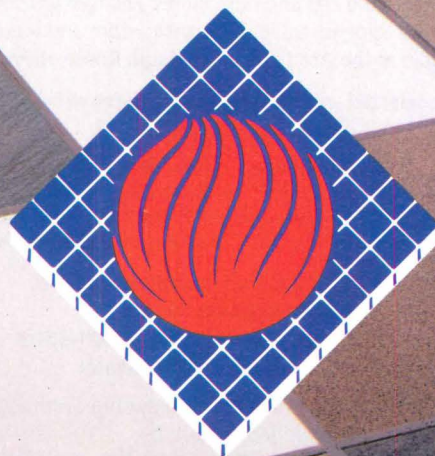
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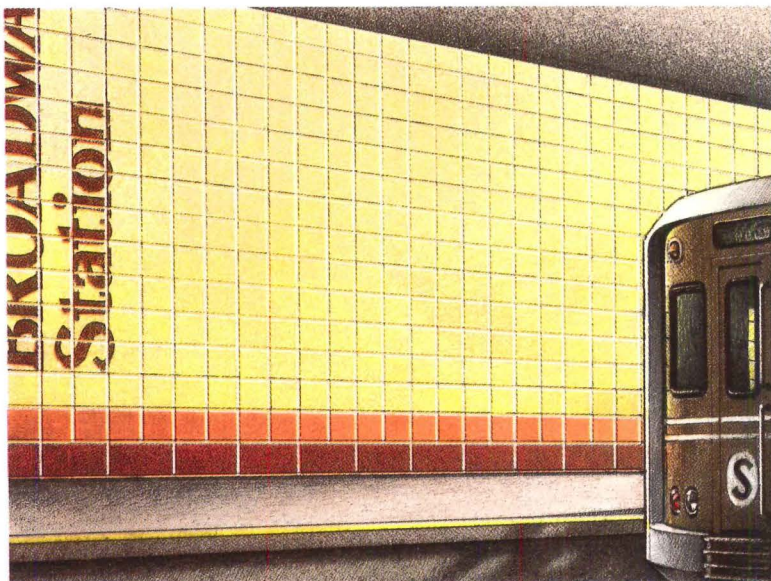


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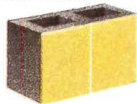
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Books (continued from page 142)

trol the vagaries of that system. He was, on any given project, the inventor, researcher, engineer, communicator, and aesthetic master. In the fields where he practiced – furniture, film, graphics, and exhibits – he was a complete master, with no factual or technical intricacies beyond his comprehension. This essentially allowed him to be the titular client as well as the consultant. In effect, his mastery and control permitted a kind of enlightened dictatorship. While he may have been something of a martinet on his own turf, he earned this right by sustaining an invariably strong design standard that was almost Platonic in its purity.

A recorded interview with Charles, "What is Design" (excerpted in P/A, Feb., 1990, p. 122) is like the Biblical Sermon on the Mount; it rings with practical virtue and stops mercifully short of righteousness. Here he described his unwavering adherence to the underpinnings and principles of the design discipline. His acceptance and near-reverence of what he called "constraints" is particularly powerful. He did not achieve novelty by dismissing limitations and tangible constraints; instead, he embraced the limitations that exist for any functioning medium. Furthermore, he enlarged upon them by seeking additional performance standards.

Charles had good fortune. He was particularly lucky in the patrons, clients, and colleagues with whom he worked. With his boyish, yet Messianic charm, he won powerful allies: John Entenza, D. J. Dupree, Elliot Noyes, Edgar Kaufmann, and George Nelson, among others. Charles's relationships with clients were direct and personal. His staff was impressive in its talent, competence, and loyalty. Such names as Don Albinson, Harry Bertoia, Bruce Burdick, Glen Fleck, Peter Pearce, Debora Sussman, as well as the Neuharts, and many others provided an incredibly rich medium in which to grow the Eames ideas.

Cranbrook Academy, where

Charles studied and taught from 1938 to 1941, was undoubtedly the crucible in which he percolated a number of his ideas. As head of Cranbrook's design program, in association with Eliel and Eero Saarinen, he must have found freedom of the most supportive kind. From there, Charles and Ray moved to California at a time when no one considered it a fertile place for

**"[Charles Eames] did not achieve novelty dismissing limitations and tangible constraints; instead, he embraced the limitations that exist for any functioning medium."**

an unfolding design practice. The Eameses felt no need to be at the commercial epicenter of the design world. Instead, they followed their own illumination; no one lighted their way.

Charles and Ray were also fortunate to become established in Los Angeles in the 1940s and 1950s. They pioneered emerging technologies, such as molded plywood, at just the right time. In those years, technology had advanced enough to make new developments possible, but it was not so complex that a dedicated individual with modest means could not master it. Those of us who worked in those decades remember how direct and simple our design goals were. Even if we had a limited sphere of understanding, the work had its own rewards: We were pioneering!

If any one thing stands out in my mind as the most impressive of the Eames legacies, it is their unwavering quest for quality long before it was the buzz word that it is today. In product design this is summed up by the simple expression Charles was fond of using: "Good goods." In its simplicity and directness, it is something we could use a lot more of these days.

**Niels Diffrient**

*The author, a noted industrial designer, knew Charles and Ray Eames as both a friend and a colleague.*



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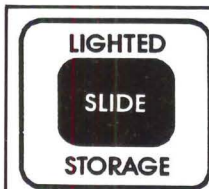
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Consideration of completed applications will begin on September 12, 1990 and continue until the position is filled. Applicants or nominators should submit a letter summarizing qualifications, a current vita, and the names, addresses, and telephone numbers of five references (who should send letters of recommendation) to Professor Paul Bartlett, Chair, Architecture and Planning Dean Search Committee, University of Colorado at Denver, Campus Box 104, P. O. Box 173364, Denver, CO 80217-3364.

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**Now that Eastern Europe is in search of democratic systems, what has become of our own?**

One answer to that can be found in Orland Park, Illinois, whose civic center will be featured in our October issue. In Orland Park, a relatively new and distant suburb of Chicago, the institutions of democracy — the city hall, the community center, the recreation center — are located not on some central square, but behind the retail strip. The access road is adjacent to a sleazy looking bar. While the civic center creates a strong sense of place in its placeless surroundings, the dominant building in town is the mall across the road. Yet it fairly represents democracy in modern America, where the activities of citizenship are increasingly eclipsed by those of consumption.

One of our editors, while in Los Angeles recently working on an October feature on the Walt Disney Company, came back to his hotel and picked up a good book after being stuck in traffic on the Ventura Freeway at 1:30 a.m. The book was Reyner Banham's *Los Angeles: The Architecture of Four Ecologies* (Pelican); in it, he reminds us of one of Disneyland's greatest joys:

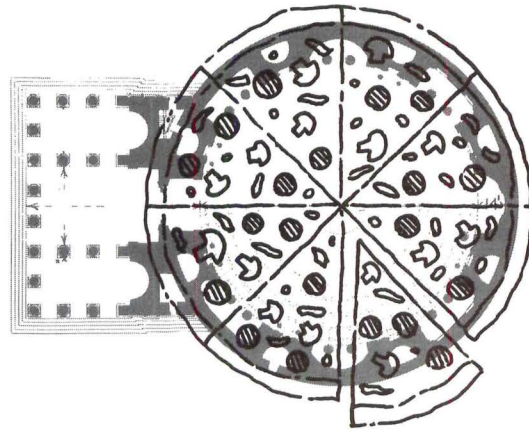
*"Enconced in a sea of giant parking-lots in a city devoted to the automobile, [Disneyland] provides transportation that does not exist outside — steam trains, monorails, people-movers, tram-trains, travelators, ropeways . . . But more than this, the sheer concentration of different forms of mechanical movement means that Disneyland is almost the only place where East Coast planning snobs, determined that their cities shall never suffer the automotive 'fate' of Los Angeles, can bring their students or*

*their city councillors to see how the alternative might work in the flesh and metal — to this blatantly commercial fun-fair in the city they hate. And seeing how well it all worked, I began to understand the wisdom of Ray Bradbury in proposing that Walt Disney was the only man who could make rapid transit a success in Los Angeles . . ."*

Much has changed since Banham wrote in 1971 — LA's first new light rail line opened in July — but Disney continues to prosper by fulfilling fantasies as improbable as public transportation in Los Angeles.

We're still a little unclear about what Tom Monaghan's Domino's 30 (page 27) is all about. The first group in 1988 was billed as a list of the top 30 architects in the world. But when the second edition, chosen by a different jury, came out a year later, it was clear that the list was going to change even faster than the whims of architectural fashion: 14 of the first 30 had been replaced. And for this year's 30, the rules have been narrowed to include only North Americans and to favor residential architects. The 30 now seems a compilation of architects who design houses that Monaghan wouldn't mind having next door to his. Still, we admire the spirit of Monaghan's endeavor, and would like to respond in kind with THE P/A 13 (right), a list of the nation's top pizza parlors as chosen by a survey of our staff. As Monaghan's 30 is a reference to Domino's 30-minute guarantee, our 13 refers to the number of issues we publish annually. Sadly, no Domino's outlet made the list, but cheer up, Tom.

**There's always next year.**



**The P/A 13: a biased and unscientific guide to the country's best pizza.**

■ **Sally's Apizza, New Haven, Connecticut.** The best pizza in the world, though Pepe's down the street is more famous. Cooked in a coal-fired brick oven, thin crust, tangy sauce. Try the "white" pizza, which has clam sauce instead of tomato.

■ **Modern Apizza, New Haven, Connecticut.** Included to appease a New Haven editor who doesn't like the lines at Sally's and Pepe's. Also cooked in a brick oven, this one oil-fired for the eco-conscious.

■ **Star Pizza, Houston.** "Great pizza in a setting an Earth-mother would love," says one who's been there.

■ **V & T's Pizzeria, New York.** A must if you're going to St. John the Divine: V & T's is across the street. Both pizza and decor described as "unbelievably cheesy."

■ **Pizzeria Uno, 29 East Ohio, Chicago.** At first we balked at including this one, as the northeast corridor is now riddled with Uno's franchises. But our Chicago source redeems them by saying the service is "depending on your standards . . . either perfunctory or impolite," and that "the crusts are crisp, the olives and spinach are fresh, and the sausage is spicy."

■ **The Nines, Ithaca, New York.** A favorite of townies and gonnies famous for its deep-dish pizza, it also includes such optional features as pool tables, a bar, and live entertainment.

■ **Valentino's, Lincoln, Nebraska.** A displaced Nebraskan on the staff reports that Cornhusker expatriates are so fond of this place they import a cache of pies every other year for

consumption at St. Bartholomew's Church in New York (St. Bart's being a work of Bertram Goodhue, who also designed the Nebraska State Capitol).

■ **Tacconelli, Philadelphia.** We're assured it's delicious, but what impressed us most is the fact that patrons have to call ahead to reserve their doughballs.

■ **Bertucci's Pizza & Bocce, Somerville, Massachusetts.** Now a small Boston-area chain, the first of the series offers artsy pizza accompanied by the sound of bocce balls on an indoor court.

■ **Jo's Drive-In, Drumright, Oklahoma.** This may appear to be the most blatant example of hometown boosterism on the list, but Jo's has the best (and only) Lebanese-style pizza we've found to date.

■ **Marietta's Pizza Parlor, St. Louis, Missouri.** Enthusiastically dubbed "the greatest pizza west of the Mississippi (one mile, to be precise)" by a discerning native, Marietta's melts cheddar into their mozzarella for a "smooth, creamy texture."

■ **Greco's Pizza, Pasadena, California.** Even though the word "trendy" is used in describing this new restaurant, we got raves for its zesty spices and — rare in the west — its white pizza.

■ **Famous Ray's, New York.** Our lawyers advised us not to get involved in the litigious battles raging among all the "Famous," "Original," and "Original Famous" Ray's in the city, but the one that serves world-class pizza is at 465 Sixth Avenue.



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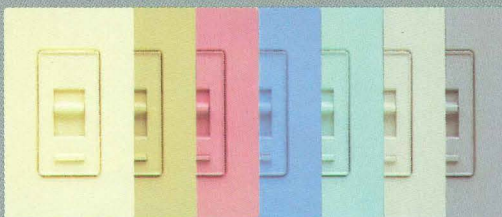


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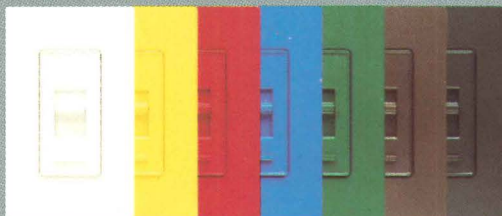
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