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Readers Respond to Bashing

Having spent 25 years being bashed as an architect, and the last 15 being bashed as an attorney, I know from bashing.

You are right on point when you say that "among the worst critics are architects themselves" [RECORD June 1994, page 7]. The same applies to the legal profession. I am always amused by the fact that architects have attorneys speak to them at architect conventions and chapter meetings and, in general, we ask them to bash us. We seem to take the lead in exposing ourselves.

Clearly, bashing is not helpful to any profession, nor does it do much service to society. Bashing, even when done in so-called good humor, tends to denigrate the ideals of professionals and create an environment of distrust. I have taken seriously the definition of professionalism as that of a supra-client responsibility. It does not appear to be an accepted definition in the 1990s.

Being one of those architects in the broad area of professional services (though an attorney, I still consider myself an architect), I applaud your editorial. I would hope that our profession, and especially the AIA, will take more time to communicate to the public just what an architect is and does. Clearly, it is more than that small percentage of our time spent as "design" architects.

Thank you for putting the issue on the table.
Gerald Gambiel Weisbach, FAIA
San Francisco

Thanks for your June editorial. Perhaps it's our aptitude, our education, or even our competitive experience that makes us our own worst critics. Regardless, it

is long past time for architects to pull together—to agree on what's agreeable and work effectively to improve and expand the profession.

I remember doing some research a few years back in order to moderate a panel discussion at the Central States Regional Convention entitled "Back to the Future" (or something similar). I turned to my architectural library (I was then head of the School of Architecture at Oklahoma State University) and reviewed the architectural journal's reporting in 1899 as to what architects could look forward to in the next century.

One 1899 article reported that when asked what were the two most important areas for attention by the profession, architects overwhelmingly responded: 1) "The public doesn't understand what we do," and 2) "We don't get paid enough." Some things never change, it appears.

Your June editorial and all of your efforts at RECORD have been remarkable for their clear understanding of our professional history, as well as our opportunities for the future. You present them in a clear and constructive way.

As the AIA's most recent group vice president for membership, and now with our reorganization under Terry McDermott, CEO, I am group vice president for education. I see the many career paths that graduating architects and architects mid-career are taking. You and I are just two examples of this important diversity. I see the importance of the AIA in supporting and assisting in these changes.

Continued on page 25

September 18-23

Habitat '94 will be held in Edmonton, Alberta, Canada with international speakers, study tours in and around the city, and a social program. Call 403/487-8102 or fax 403/487-2417.

September 27-29

InterPlan Week (formerly Designer's Saturday) will take place in New York City at the Jacob Javits Convention Center. IDCNY, New York Design Center, and Decorative Arts showrooms will hold receptions and programs September 29-30. Call 800/950-1314.

September 30-October 21

The impact of the design industry on the environment will be discussed at Green Design New York, to be held in the A&D building in New York City. It will consist of exhibitions, seminars, speakers, lectures, debates, and an open forum. Call 212/843-6689.

Through October 2

An exhibition on Thomas Jefferson and the design of Monticello includes a scale model of Monticello's dome. AIA Gallery, 1799 New York Ave. N.W., Washington, D.C.; 202/638-3221/3105.

October 6

The New York Landmarks Conservancy will honor six "living landmarks" at its gala benefit dinner dance at the Plaza, New York City. Tickets are \$500 and \$1,000; tables are \$5,000, \$10,000, and \$25,000. Call 212/921-9070 for reservations..

October 8-11

The American Society of Landscape Architects will present a new format and content and focus on water issues at its annual meeting in San Antonio, Tex. Call 202/686-8319.

October 11-12

The A/E/C Systems fall computer show for the design professions and construction industry will be held at the Hyatt Regency,
Continued on page 25



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Caudill Rowlett Scott (1946—1994)

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Charles D. Linn, RECORD LIGHTING

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The passing of a major architectural firm (RECORD, August 1994, page 13) should not go by without notice. It is said that few firms survive their founders. Ownership transition, a popular topic at practice workshops, can indeed head off most of the inherent pitfalls; but there's one it somehow hasn't been able to deal with—how to orchestrate a passing on of the spirit that made the original firm great. William Caudill, John Rowlett, and Wallie Scott were singular men. Born in the great wide plains of the Southwest, they built a practice that by the 1960s spanned the globe; yet they never lost the common touch, in their design or their work relationships.

The three complemented each other: Caudill as designer and teacher, Rowlett as master administrator, Scott as salesman. Although winners of an array of honor awards, the firm was never ranked with the dramatic innovators of new forms or as refiners of new forms created by others. But they contributed something else which in the great Final Reckoning could count for just as much. They insisted on giving their clients, at first in public education and later in most other building types, the best functioning solutions to the program that commitment and research could provide; construction costs in line with budget; and a building that would be ready on schedule. They didn't always achieve all of these things, but it was a basic part of their credo. So was team work. This wasn't lip service, but the real thing. In 1972 it brought CRS the coveted AIA Firm Award, which only 31 firms have ever won; and the office graduated a group of loyal "alumni" that many another firm would envy.

Some say the beginning of the end came back in 1971, the year before the Firm Award. That was the year the company went public, and it marked the start of a giant acquisition program that brought under the corporate umbrella a vast conglomeration of engineering firms of all stripes; utilities design, construction and operation services; and it landed the company squarely in the realm of capital investment and development. Eventually the spirit of the firm changed; the architectural firm became less and less significant as a generator of revenues and profits; and with the sudden death of outstanding designer and team leader Paul Kennon in 1990, CRS' days as an architectural powerhouse were numbered. Its foray into the world of capital financing lost it some of its most gifted leaders, and when the firm, now known as CRSS Inc., decided to strip down to its independent power business earlier this year, Caudill Rowlett Scott along with the engineering and construction management units went on the block (the architectural firm was merged with HOK). In a wry final comment on the passing, long-time former CRSS chairman Thomas Bullock told RECORD that founder Caudill always had two game plans in his strategic arsenal—one was to keep growing; the other to wind things up and go out of business if the time was right. He never lived to see it happen.

RECORD's design director retires after 25 years

This month is Alberto Bucchianeri's last after twenty-five years at RECORD, seven of them as design director. He is taking early retirement so he can teach and consult. In his time at bat, the technology of magazine publishing has changed dramatically: from outsourced typesetting and page makeup to virtually total in-house desktop production. He never, however, allowed technology to interfere with what he has rightly seen as his paramount tasks: realizing that clear communication of content must prevail over graphic acrobatics, and keeping his eye at all times on the ball of quality. *Stephen A. Kliment*



Trisha Wilson, ASID, IBD, founder of Wilson & Associates, Dallas, Texas. Recently inducted into the 1993 Interior Design Hall of Fame for her stunning work in hospitality design, she is a specifier of DuPont Antron carpet fiber.

Ohio

"House Rules" Show at the Wexner Challenges the Comeback of 1950s Family Values

Just as mainstream politicians and social critics are beginning to call for a daddy in every master bedroom, the Wexner Center for the Arts has mounted an ambitious show, called "House Rules," that, by focusing on marginalized end-users of dwellings—Latinos, single mothers, gays and lesbians, and others who don't meet the norms of the dominant culture—exposes how domestic formulas dictated by property values and mass marketing manage to stifle just about everyone. "We're hoping people will realize that nonconformity is actually the norm," says Wexner curator of architecture Mark Robbins.

The exhibits are collaborative works by 10 teams pairing architects with social critics and theorists. Steven Fong, Suzan Selcuk, and cyberspace theorist Allucquere Stone explore how designed spaces enable or inhibit self-presentation in a tract house that rejects traditional front and back yards for a side-yard "trans-typology" (1) for a person in the

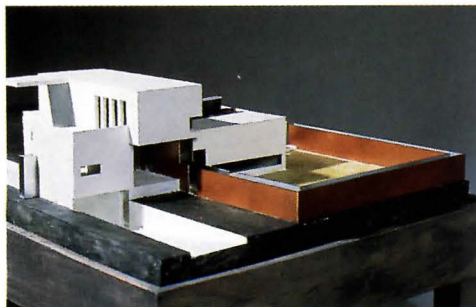
process of changing gender. Benjamin Gianni and Scott Weir, along with "queer" theorist Eve Kosofsky Sedgwick and Michael Moon, an expert on Walt Whitman, build a home for a homosexual teenager (2) that recognizes variation both within the gay community and within the lifespan of a gay individual, and acknowledges the mutual closet raids by parents and teens seeking knowledge of each other's sexual materials.

In order to disrupt the domestic-zone hierarchy that limits behavior, artist/critic Silvia Kolbowski and Smith-Miller + Hawkinson redistribute a suburban home (3) all over the open space originally intended to separate it from the neighbors with whom it shares waste and power systems, and from the cities that define suburban safety. Joel Sanders and art history professor Jonathan Crary dislodge the mask of stability and cohesion from the atomized family segments that the tract home was designed to serve by creating party-walled suburban houses (4) with aper-

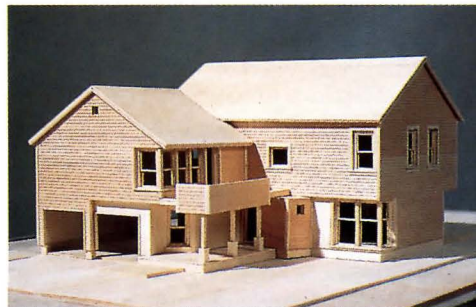
tures that exaggerate the windows that control suburban attitude. Architectural theorist Henry Urbach and the *Interim Office of Architecture* take on the ambiguous threshold of the closet where the world of norms confronts the hidden, and individuals may see themselves as strangers (5). Adobe LA and urban theorist Margaret Crawford celebrate the make-do approach of the East Los Angeles Chicano community that prizes personal competence and resourcefulness over property values and the careful maintenance of developer values (6); according to Crawford, the area's eccentric qualities create a cultural free-zone that bolsters stability by discouraging development.

The exhibitors, including four teams not shown here, question notions of privacy and shame and, directly or incidentally, the ideal of home created by architects, developers, and opinion makers rather than by the people who have to live there. The show runs from September 10 through December 11.

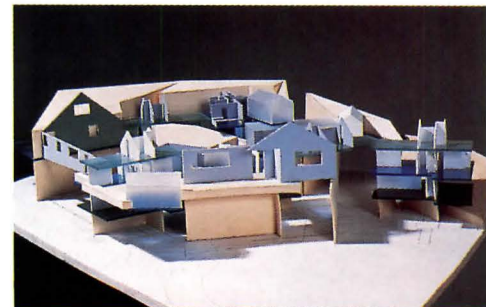
Judith Davidsen



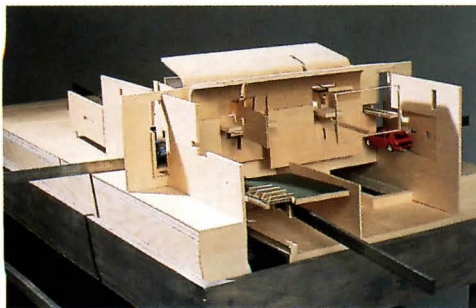
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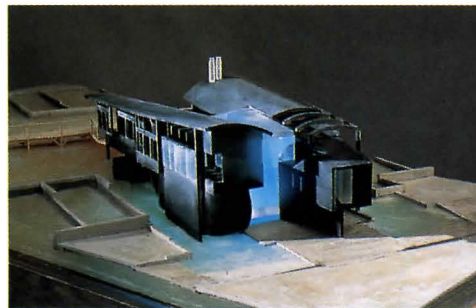
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6

Richard K. Loesch photos



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Briefs

Camden Yards It Ain't

In an effort to keep the Yankees in the Bronx, New York State and New York City have chosen HOK to lead a master-plan team focused on an upgraded stadium, improved transportation, and community revitalization. If the plan can convince the team to stay, without treating the neighborhood as something to be improved only for the sake of visitors, HOK could become architecture's miracle worker.

For over a year, Yankee owner George Steinbrenner has been courting proposals to solve attendance problems caused, he claims, by his fans' fear of the Bronx neighborhood that is just beginning to recover from the highway Robert Moses rammed through it 30 years ago. Amid charges of lackluster play and over-priced tickets, and reports that attendance is up and the most common area crime is ticket scalping, New Jersey offered the team a \$250 million Meadowlands stadium.

New York State countered with a \$319 million retractable-dome venue in midtown Manhattan, quickly followed by a plan for a \$150 million train station in the Bronx; by June 1994, 10 new stadium sites were under study citywide. In July, the state proposed a bridge direct from Manhattan to the stadium so that fans could avoid the neighborhood. State and city now seem to realize the Yankees have a role to play in reviving the area, but it ain't over til it's over. HOK, good luck.

Reading in Seattle

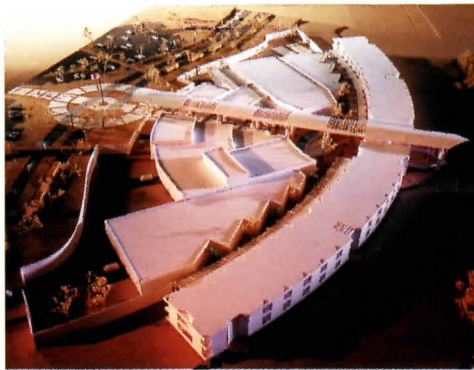
If voters approve \$550 million in public construction and renovations come November, some of the facilities could embody Mayor Norm Rice's dream of saving money by combining multiple services in one structure. A \$115 million downtown library could house a community center; and a \$100 million public safety building could include a branch library; one of the renovated schools also could make room for another branch library.

On-Screen Architecture

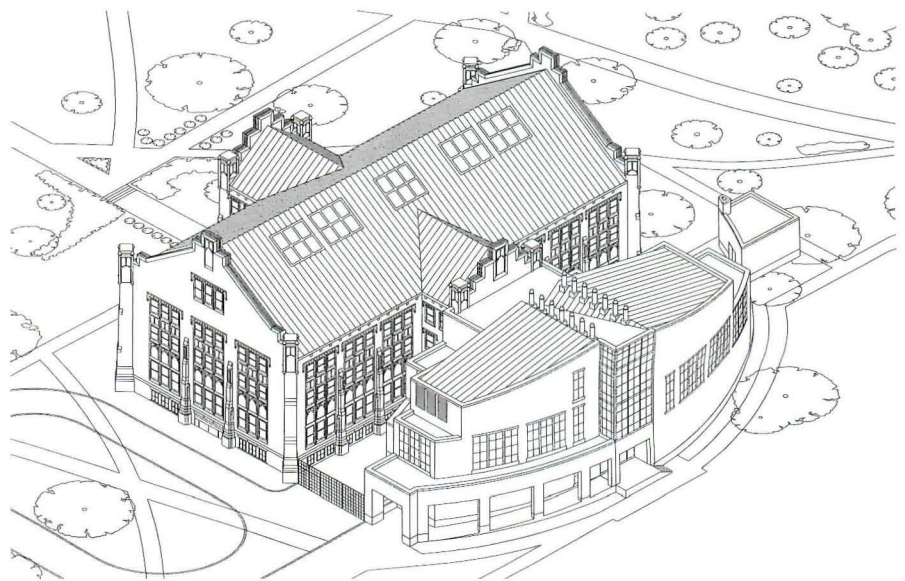
The Educational Broadcasting System has received a \$500,000 NEA grant to develop a TV series on the role of architecture, design, and urban planning in U.S. culture.

New Design Venue

The Toronto Design Exchange opens September 24 in the former Toronto Stock Exchange, renovated by Kuwabara Payne McKenna Blumberg. ■

New School Will Work Evenings, Weekends, and Holidays

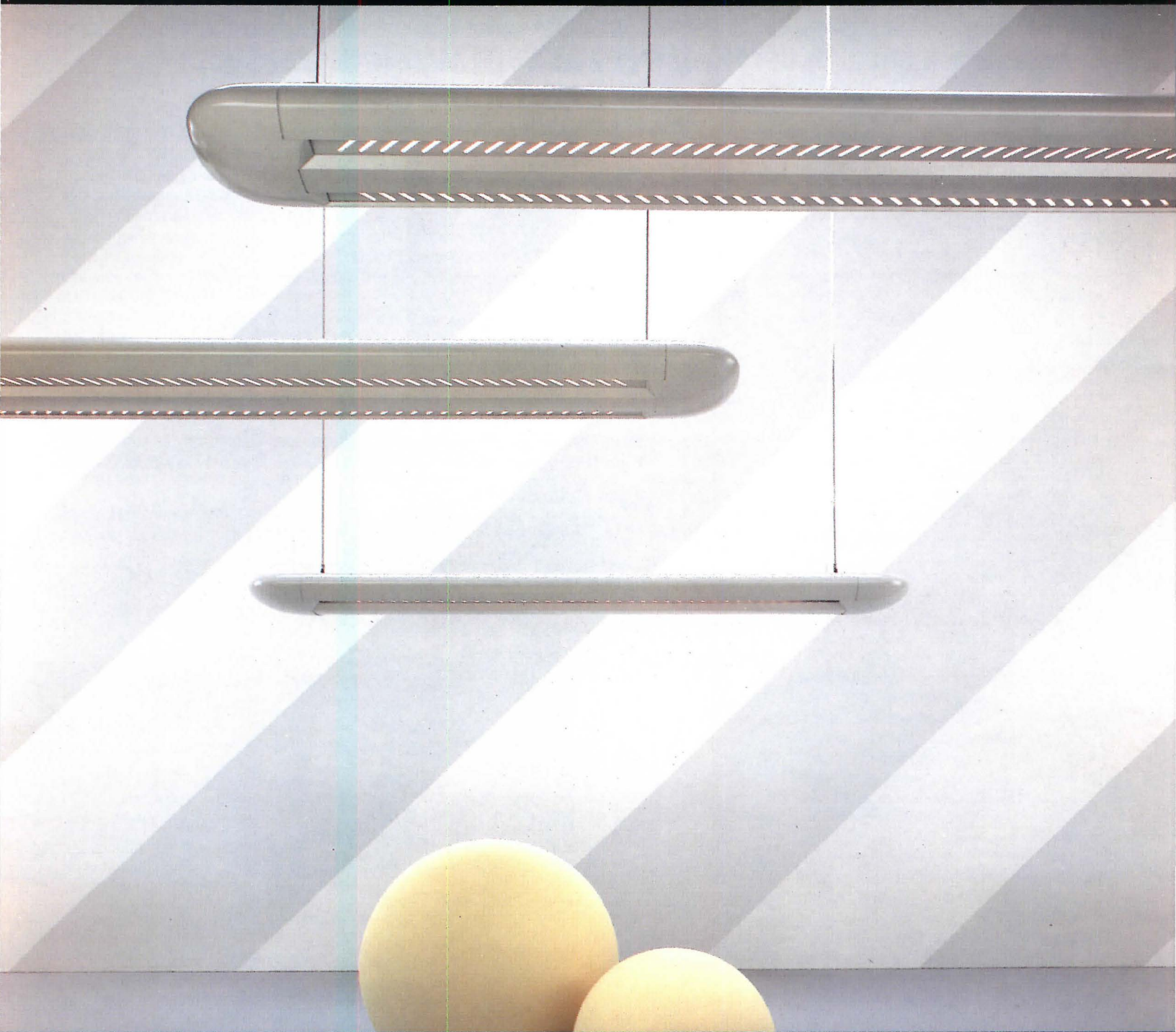
In association with Tucson's IEF Group, TMP, a Michigan A/E firm, has won a design competition for the 2,000-student Southwest High School for the Tucson Unified School District. The project is organized around an "atrio" (in historic southwest architecture, the central gathering place in front of a town church) through which the school shares its services with the local community. A high arched spine passes through a curved classroom block into the atrio, providing public access to the gym and the theater arts center even when the student areas are closed. ■

Old Phys Ed Building Expands To Serve the Arts

A renovation of and addition to the Severance Art Building at the College of Wooster, by R.M. Kliment & Frances Halsband, will gather in galleries and art history and studio art activities currently housed in separate buildings. The 17,000-sq-ft addition will extend the axis and formal organization of the collegiate Gothic 32,000-sq-ft original, built in 1911 as a physical education facility overlooking a green expanse of playing fields surrounded by campus buildings. Large art studios will be located in the former gymnasium spaces, with skylights introduced to

capture the north light. Galleries, lecture hall and seminar room will be in the addition, along with new mechanical equipment, elevator, bathrooms and a loading dock to be shared with the older building. Between the two is a separate structure housing a gas-fired kiln and work areas for sculpture and ceramics. Both the old and new components will use steel frame faced with cream-colored brick; where the original has white terra cotta trim and a red tile roof, the addition will have limestone trim and a standing-seam metal roof. ■

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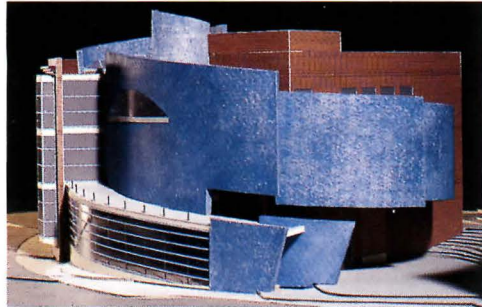
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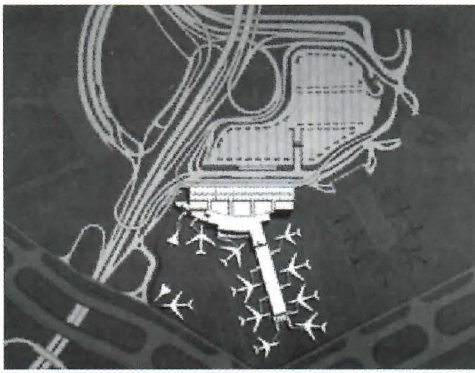
Outsider Museum On Inner Harbor

Under construction in Baltimore, the American Visionary Art Museum—a collection of art by self-taught individuals not influenced by the mainstream art world—will be the first of its kind in the western hemisphere. The project involves renovating an old whiskey warehouse and the 1913 Trolley Works (an eccentric wedge whose front curves follow the highway and whose rear hollows out where a lightning bolt once hit it), and joining them with the blue curved concrete wall of a new building; this facade will be an ongoing mosaic created by local youth from donated pottery, glass, china, marbles and the like. A spiral stairway, with steel bridges to each level, and to views of a residential area on one side and the Inner Harbor on the other, will wind helix-like through the center of the building. The design firm, Castro/Swanston Associates, was formed when AVAM founder Rebecca Hoffberger put together Becky Swanston, an architect in her car pool, and Alex Castro, an exhibition designer who had studied under Louis Kahn and whom she asked, “Don’t you want to build something that isn’t supposed to be torn down?” Pitted against five other firms, the duo won. Project architect is the A/E firm Davis, Bowen & Friedel. ■

Jeanne Anderson photo



First New JFK Terminal Since 1971 Slated for Eastern’s Old Site



A consortium of overseas airlines has tapped William Nicholas Boudova + Associates to design the first new terminal at Kennedy International Airport since 1971. The \$435-million project, to open in 1998 on the highly visible site formerly used by Eastern Air Lines, will contain 10 gates for wide-body aircraft and a station for a future people mover joining it to LaGuardia and Manhattan. Within a week of the award announcement, the New York City Landmarks Preservation Commission conferred landmark status on Eero Saarinen’s 1962 TWA terminal. ■

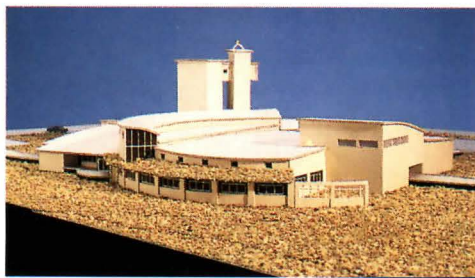
Pouring a Troubled Tower Into a New Skin

The old 579-ft-high Gulf + Western Building on the edge of Central Park at Columbus Circle is about to be poured into a new skin by Philip Johnson and Costas Kondylis. Originally an office block, the building, whose main distinction to date has been its penchant for twisting and audibly creaking in high winds, is expected to become a luxury apartment house/hotel for Donald Trump within the next three years. Johnson plans to re clad the spandrels and columns in champagne-toned mirrored glass and replace the flat windows with pale bronze three-sided bays. Although the structure was built to code in 1970, and its rapid 2.5-ft shifts at the top are said not to pose any danger, the Cantor/Seinuk Group will engineer diagonal steel trusses and new columns every 13 feet. Under current zoning, building anew would result in a tower 10 to 12 stories shorter. ■



© Louis Blanc

Cultural Center Inspired by Inupiat Forms



© Chris Arend photo

The 31,000-sq-ft Inupiat Cultural Center, designed by the Anchorage firm Livingston Slone and under construction in Barrow, will provide a museum, library, art studios and workshops, and space for traditional and contemporary cultural events. The viewing tower, which will make the center the tallest building in Barrow, was inspired by the lookouts of driftwood logs traditionally used by Inupiat Eskimos for spotting game. ■

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about the Camp David accident and the Korean. Tell us about the houses you recently built on an Indian reservation.

Thirty houses in a week

This July, Carter took his hammer to the Cheyenne River Sioux Indian Reservation in South Dakota and, along with 1,200 other volunteers, helped build 30 three- and four-bedroom houses in one week. “The situation on Indian reservations is similar to that of the inner cities,” says David Snell, the director of education ministries for Habitat. “There is poverty, alcohol abuse, bad health care, and the breakdown of families.”

After meeting with the leaders of many Indian nations, Habitat chose the Cheyenne River Sioux Reservation because conditions

front porches, full basements, and combined living and dining rooms, the houses curve around a large common area. But the houses—designed by architect Peter Dalva, a Habitat employee—and the land plan—designed by Leroy Troyer, a former Habitat director who has his own architecture and engineering firm in South Bend, Indiana—respond to the needs of the Indians. The full basements (unusual for Habitat) and the spacious living-dining areas provide flexible space for extended families, which are important to Lakota life, while the land plan recalls the traditional *hócoka* or “circle of life” around which the Lakota erected their tipi.

Something about the Habitat program and the way it is delivered strikes a responsive

message of support to people in poor communities who often feel isolated from and ignored by the more affluent parts of society.

Despite its success in building 10,000 houses in 1,600 communities and 43 countries worldwide in 1994, Habitat is still looking for better answers. “We haven’t really been that successful in the inner city,” says Snell, citing a gap between the mostly affluent and white board members of many of Habitat’s urban affiliates and the poor and minority people they serve. Snell also hopes to work with other organizations that provide job-training, health-care, substance-abuse, and educational services to attack the problems of poverty in a more holistic way. “We’ve learned we can’t do it all.” Clifford A. Pearson



© Clifford Pearson photo

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Briefly Noted

Landmarks of Los Angeles, by Patrick McGrew and Robert Julian. New York: Abrams, 1994, 288 pages, \$50.

For architects visiting Los Angeles, this coffee-table book may be a little heavy to carry around, but it offers a complete survey of the city's 500 designated landmarks and photographs of 200 of them. Organized into six chronological chapters, the book includes icons like the Watts Towers and Hollywood sign, as well as civic buildings, movie palaces, and residences.

Buildings of the United States (series), sponsored by the Society of Architectural Historians. New York: Oxford University Press, 1993 and beyond, \$45 (each).

The first four volumes of this monumental undertaking were published in 1993 and cover Alaska, Iowa, Michigan, and the District of Columbia. Inspired by Nikolaus Pevsner's *The Buildings of England*, this American series will eventually include 55 volumes and be a valuable record of our architectural heritage.

Architects House Themselves, by Michael Webb. Washington, D.C.: Preservation Press, 1994, 224 pages, \$40.

While lawyers who defend themselves are said to have fools for clients, architects are expected to design their own homes. This book includes 47 examples of residences that architects created for themselves. The author forces designs into corny headings such as "All in the Family" and "Balancing Acts," and the book itself has an awkward design. But it is a lot of fun to see what Charles Moore, Paul Rudolph, Bart Prince, Carlos Jimenez and others have designed for themselves.

The Architectural Index 1993, edited by Ervin J. Bell. Boulder, Colorado: The Architectural Index, 1994, 138 pages, \$25 (paper).

This handy guide to articles published in the professional press covers nine major architectural magazines: *Architectural Record*, *Progressive Architecture*, *Architecture*, *Builder*, *Custom Builder*, *Interior Design*, *Interiors*, *Journal of Architectural Education*, and *Landscape Architecture*.

How to Start and Operate Your Own Design Firm, by Albert W. Rubeling, Jr. New York: McGraw-Hill, 1994, 216 pages, \$33.

Fed up with your current situation and convinced you're smarter than the boss? Well, here's a book that may help you take the plunge into entrepreneurial waters. Although written in a manner that seems dangerously close to the naivete of an Andy Hardy movie ("Hey kids, let's start our own band!"), this primer offers some good basic advice. For anything more than the basics, though, you'll have to look elsewhere.

Correction

In Naomi Pollock's review of Armando Salas Portugal's book *Luis Barragan*, published by Rizzoli International, [RECORD, March 1994, page 19], the title of the book was misidentified due to an error in the Rizzoli catalog. The title *Luis Barragan: The Architecture of Light, Color and Form* is that of a forthcoming book and exhibition catalog from Montage Journal.

Drawn for ARCHITECTURAL RECORD by Charles Linn



When System Error 9633 occurs, accompanied by the Bomb Icon, discard CPU except for mouse. Use mouse to break glass over T-square, and resume drawing.

THE FIRST THING WE DID TO HELP REMODEL THIS OLD HUNTING LODGE WAS

This large, beautiful room is the centerpiece of what was once an exclusive hunting lodge. Built in 1930, the property was converted to a single family residence in the early Fifties. But 40 years of paint, plasterboard and paneling had all but hidden its original elegance.

So, when new owners began renovating it in 1991, they asked architect Katherine Cartrett of Mulfinger, Susanka and Mahady to recapture the original rustic charm of the place.

They asked her to use only the finest high performance building products available. Given those terms, it's not surprising that, when the subject of windows and doors came up, the owners asked to talk with Marvin.

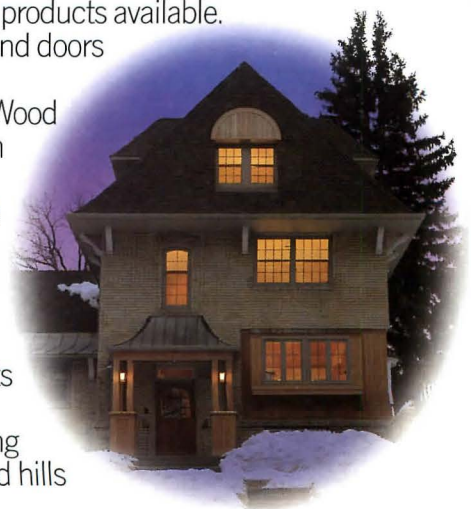
The first step was an on-site meeting. Nick Smaby from Choice Wood Custom Residential Remodelers was there. So were representatives from the Marvin dealer and distributor.

One by one, they inspected every opening in the home. Then the entire group sat down and planned the job out.

Sizes were discussed. So were shapes, styles, energy efficiency, maintenance and budgets.

By the end of the day, the plan called for a combination of new windows and replacement sash — 46 windows in all. There were eight sets of doors too.

The results of that meeting are pictured above. The Marvin Sliding *French Doors* add light and open the room to the panorama of woods and hills



Letters Continued from page 4

The activities of the newly formed Education Group focuses around the following two long-term strategic visions: Helping, through lifelong learning, to increase the value to the public and clients of AIA members and helping to prepare AIA members for new leadership and initiative in the design-construction industry.

The role, career path, and markets for architects are clearly changing. The role of the AIA, as a bridge between education and practice and as a lifelong learning resource, has never been more important.

Virgil R. Carter, FAIA
Washington, D.C.

American In Paris

I hope there are some amongst your readership who are not celebrating Frank Gehry's new Thalidomide baby in Paris as anything more than an unfortunate caprice. It's ironic that Jacques Derrida's literary criticism theories should return to Paris to haunt him in the form of this disunited, ambiguous, and very self-conscious disordered thing. But I suppose deconstruction's disparate theories are reflected here in Gehry's building without closure, such as conversely realized in Wright's Guggenheim or Le Corbusier's Ronchamp.

If Cristo were in Paris, he could perform a real architectural service by 'wrapping up' Mr. Gehry's child of mutilation.

Bob Lloyd
Brooklyn, N.Y.

Corrections

In the article "A Slim Tower Packages Multiple Functions" [RECORD, July 1994, page 36], Jihyon Kim and Simona Scarlat were accidentally omitted from the credits list.

The name of Hsin-Ming Fung, co-winner of the American Academy of Arts "Academy Award," was inadvertently truncated in the July issue [page 15].

The top winning entries in the CAD competition for a U.S.-Mexican border trade facility [July, page 13] were identified confusingly; James Black created the design in photo 1, and Ron Allen the design in photo 2.

The headline on the student competition story [July, page 15] should have read "Global Student Competition." The other sponsor was Association of Collegiate Schools of Architecture. ■

Calendar Continued from page 4

Chicago. ENR, RECORD's sister publication is sponsoring the show. Call 800/451-1196 for more details.

Competitions

•The Tilt-Up Concrete Association is sponsoring a competition for achievement in tilt-up construction. Projects must be completed between Sept. 1, 1993 and Sept. 1, 1994, and building teams must contain at least one TCA member. Deadline is Sept. 15, 1994. Call Ed Sauter at 319/895-6911 or fax 319/895-8830.

•The American Academy in Rome announces the 1995-96 Rome Prize fellowship for architecture, landscape architecture, industrial design, urban design, and urban planning. Deadline is Nov. 15. Call 212/751-7200.

•American Wood Council's Wood Design Award Program is accepting submissions until Oct. 7. Projects must have been completed since January 1991. Call 202/2324.

•Boston Mayor Tom Menino is soliciting designs for renovations to the city hall's brick plaza. The winning design will be selected in December. Call 617/635-4505. ■

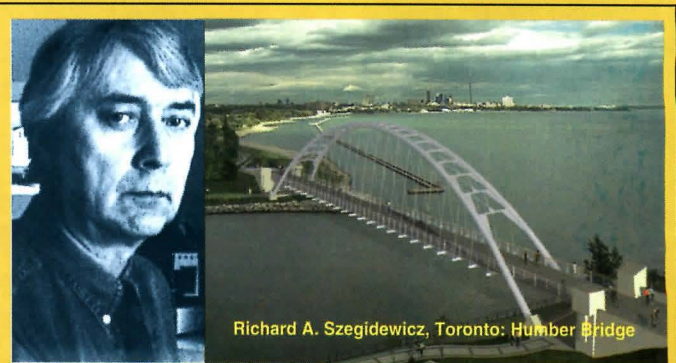
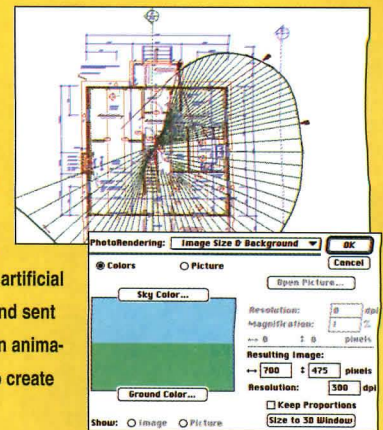
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Richard A. Szegidewicz, Toronto: Humber Bridge

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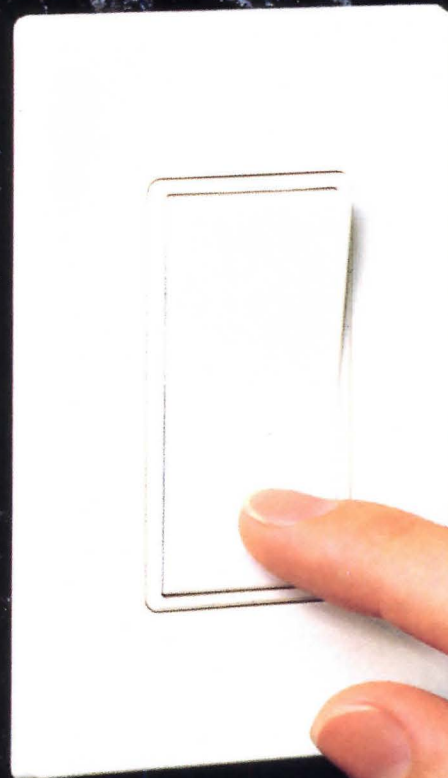
Even better, these beauties have real strength underneath. The inside is strictly commercial grade quality construction that stands up to demanding applications. These devices are engineered for maximum flexibility, too. In fact, you can fit Decora Plus wallplates onto existing Decora devices. Choose from a wide variety of models and six contemporary colors. With Decora Plus, you'll always find just the right touch!

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In Canada, Leviton Manufacturing of Canada, Ltd., 165 Hymus Boulevard, Pointe Claire, Quebec H9R 1G2, 1-514-954-1840 or FAX 1-514-954-1853.

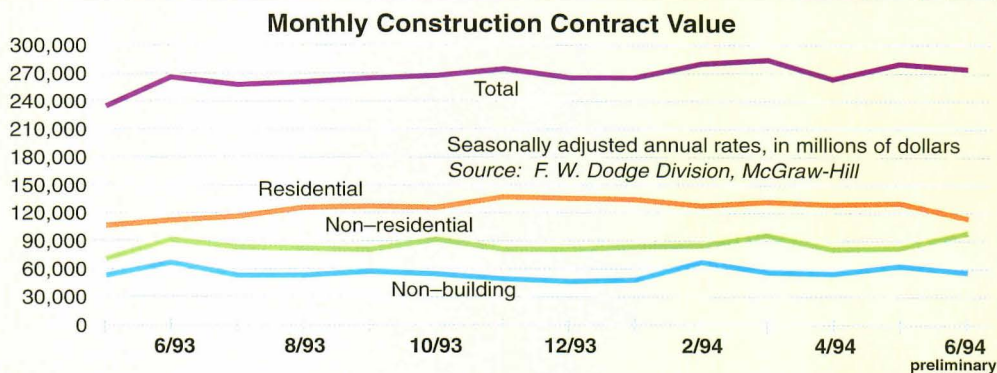



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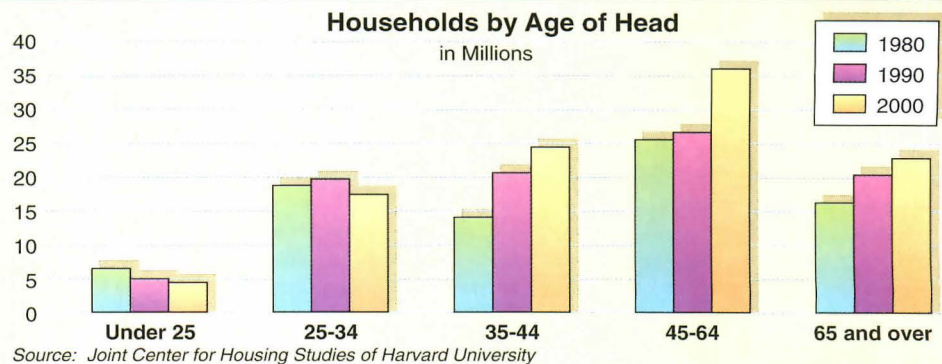
Housing dampens contract value

The total value of new construction contracts slipped two percent in June, led—as May’s interest-rate spikes kicked in—by a 10 percent drop in housing. Single-family housing, which has spurred the construction recovery, dropped 13 percent. Non-residential construction, rising 13 percent, may now be picking up some momentum, as building for schools and health-care gained. There’s still little life in office building, but retail continues to gain strength. Non-building work dropped five percent. ■



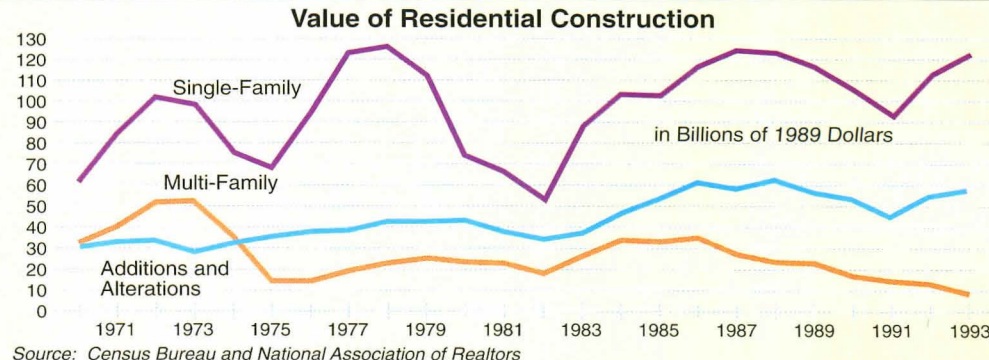
Immigration balances aging boomers

While it’s a commonplace that the nation’s age and racial makeup are rapidly changing, research by the Joint Center for Housing Studies at Harvard University (which has published “The State of the Nation’s Housing 1994”) quantifies its effects. Understanding demographic change is key to determining what kinds of facilities are likely to be in demand. Immigration, for example, means that the decline in the 25-34 age group will not be as steep as once anticipated. Still, the effect is dwarfed by aging baby boomers. ■



Do you doubt that housing’s cyclical?

The Harvard study cited above charted housing construction in 1989 dollar values, making it easy to see the effect of economic cycles, especially on single-family builders. (Alteration work proves impressively consistent.) The research also sustains those who say that the long decline in multi-family construction may be ending. Growth in single-family starts, says the study, is partly predicated on families moving farther and farther from urban centers, a trend it finds troubling for cities left behind. ■



The Profession This Month

- **Breaking Out of the Display Case, Exhibits Reach Out and Touch:** Exhibit design has reached new heights of sophistication. Today it relies on interactive computer and imaging technology in catering to visitors’ heightened expectations. *Page 28*
- **Doing More with DOS:** Despite the onslaught of products for Windows and the Power PC, there’s still inexpensive software that runs well on older machines. Reviews of DataCAD 5.02 and Advanced Architecture. Also, a look at Project Scheduler 6 for Windows. *Page 34*

- **An Architect Experiments:** William Pedersen, of Kohn Pedersen Fox, turns high-tech carbon fiber material into furniture of ethereal lightness (Products). Also, a roundup of new paints and coatings (Product Briefs). *Page 36*

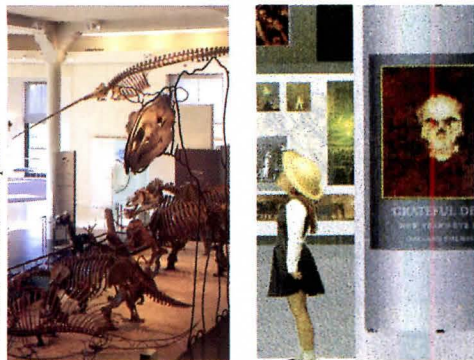
Breaking Out of the Display Case, Exhibits Reach Out and Touch

Museums aren't what they used to be. To attract people who never went to them in the past and to hold the interest of a new generation notorious for its short attention span, these cultural institutions are rethinking how they display their collections and themselves. At the same time, many new museums are steering away from the broad focus of older institutions and are honing in on more specific and often difficult subjects like the Holocaust, journalism, and individual artists such as Andy Warhol (see article "Home Again"). Meanwhile, technology is rapidly evolving as computers, multi-media installations, and interactive displays proliferate.

Working in that vague realm between architecture, education, and show business, exhibit designers are often the unsung heroes who communicate the museum's message to the general public. "Exhibits should be environments, not just furniture," says Ralph Appelbaum, who heads a firm in New York City specializing in exhibit design. Although he has a degree in industrial design, Appelbaum says that today more exhibit designers are trained as architects.

Emphasizing museums' ability to be exciting places of learning, Appelbaum says he sees "exhibits as marketplaces of ideas." In the past, museum architecture and exhibit design often inhibited the "give-and-take of ideas" and placed a certain distance between exhibits and visitors. Appelbaum tries to break down that distance both physically and emotionally—eliminating much of the hardware and cabinetry that once encased objects

Appelbaum's "Mammals" (left); the Burdick Group's Rock and Roll Hall of Fame (right).



© Scott Frances/Esto photo

on display, establishing instead strong storylines for visitors to follow, and using interactive technology such as touch-screen terminals and hands-on models to bring visitors into active contact with the exhibit itself.

A danger of the new interactive technology and hands-on approach to exhibits, warns Appelbaum, is that museums will lose their status as reverential places. While exhibits should help explain what is on display, they should also create a sense of wonder. Another danger is that the voice of the exhibit will drown in a sea of gadgetry. Finding that voice and maintaining it throughout the development process is the exhibit designer's most important task, says Appelbaum. To stay focused on that voice, Appelbaum starts with an exhibit's text, and then works on its visual components.

Many directions at the same time

Like Appelbaum, Susan and Bruce Burdick were trained as industrial designers and now specialize in exhibit design. Their San Francisco-based firm, the Burdick Group, has a staff of 20 that includes architects, industrial designers, interior designers, graphic designers, and multi-media experts. In the past exhibits, often led visitors from one spot to another, but today they are more akin to crossword puzzles, going in many directions at once, says Susan Burdick. "The exhibits we design aren't linear stories," explains Bruce Burdick. "Exhibits aren't like books, which you read from front to back. People move through them at their own pace and along a number of different paths."

Although adept at working with the latest technology, the Burdicks agree with Appelbaum that interactive displays can be overused. "The media are being used everywhere now—from the mall to Disney World," says Susan Burdick. "So you have to be careful to use various media to their best advantage and vary the type of media used." Designers must also remember that museums are where "the real stuff is," says Bruce Burdick. Tapping into cyberspace can be a good way to engage visitors, but it is, after all, an activity that can take place wherever there's a computer. Only when it supports "the real stuff" on display is it used most effectively. *Clifford A. Pearson*

United States Holocaust Memorial Museum, Washington, D.C.

To stress the connection between the Holocaust and people living today, Ralph Appelbaum Associates designed the 50,000 square feet of exhibition space on three floors so that visitors would have maximum direct contact with the objects and displays. Where separation was necessary, the designers used sheets of glass held in place by metal pins at the top and wheels locked in place at the floor.

"The Holocaust exhibit is both narrative and environmental," explains Appelbaum. "It tells a story, while also expressing the visceral facts." Visitors walk along a marked path to see the 122 exhibit segments, but can get off the path at various points. The path itself is a tactile element in the exhibit, changing from cobblestones to wooden boards to concrete.

At the start of the exhibit, visitors face large photographs of concentration camps and are handed passport-like cards with the stories of individual Holocaust victims. Following these "singular" items, visitors are presented with a complex "layering of evidence and layering of emotion," says Appelbaum. Glass display surfaces are canted to reduce glare, but also to express a world being shattered. Multiple images in giant displays, walls of town names etched into glass, and piles of shoes and hair taken from concentration-camp inmates hint at the horrible numbers of the Holocaust.

The exhibit designers also used dramatic shifts in scale—from displays of small personal artifacts to a three-story-high tower of old photographs (1 and 2, opposite)—to create the sense of a world out of balance. Thirty interactive terminals, which permit visitors to delve more deeply into issues presented by the exhibits, are away from the main display areas to avoid disrupting the emotional flow.

Although Pei Cobb Freed & Partners had completed the design of the building before the exhibits were designed [RECORD, July 1993, pages 58-67], Appelbaum helped the architects adjust their plans to handle large exhibit items such as a rail car (4), a concentration-camp barracks (3), and the Tower of Victims photo display. *C.A.P.*

At the U.S. Holocaust Memorial Museum in Washington, D.C., the exhibits designed by Ralph Appelbaum Associates bear witness for those who can no longer speak.

© Jeff Goldberg/Esto photos



In the newly renovated and totally reorganized mammals exhibit at New York City's American Museum of Natural History, Ralph Appelbaum Associates tells a scientific story that ends with us.

American Museum of Natural History, Mammals Exhibit, New York City

The first phase of a 60,000 square-foot overhaul of the landmark museum's beloved fossil halls, the new "Mammals and their Extinct Relatives" exhibit is both a radical departure from, and a return to, a former incarnation. With its interactive displays, video screens, and revised scientific principles, the exhibit is right on the cutting edge. But by renovating two grand halls, removing hung ceilings, replicating historic lighting fixtures, and opening the rooms to views of Central Park, the project brings back the glory of the museum Calvert Vaux designed in the 1870s. New hvac and particle-filtration systems keep dust out of the air, so many artifacts that had been in glass cases could be brought into the open. "We wanted to integrate the exhibits with the architecture," says designer Ralph Appelbaum.

In the past, fossil exhibits were organized chronologically, with all the animals living at one time displayed together. But paleontologists study these creatures through the lens of evolution, organizing species by their place on the evolutionary ladder. To introduce viewers to this science and explain how humans are related to other mammals, the exhibit is laid out as an evolutionary tree, starting with a diagram on the floor showing the roots of all mammals (2) and branching off into displays on carnivores, perissodactyls (horses), cetaceans (whales), and other groups of animals (3).

Exhibit speaks to various audiences

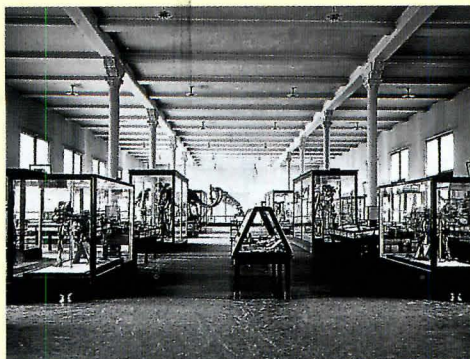
A clever hierarchy of displays allows visitors to browse the entire exhibit or explore particular areas in depth. Large platforms with cantilevered edges that also serve as seating display some of the biggest fossil mounts, while alcoves offer more detailed information, smaller artifacts, and touch-screen displays. Eschewing historicist flourishes, the designers used the minimum amount of display hardware so the fossils and artifacts could be the star performers. All of the construction materials used are "the real thing," says Appelbaum: steel, glass, and terrazzo, for example, instead of plastics, polycarbonates, and vinyls. "I have always thought it

odd that museums often display priceless artifacts using cheap materials that age badly," he adds. Echoing the way vertebrate skeletons are put together, the steel posts and railings for the displays are attached to steel members placed in the floors, so they resemble a kit of parts.

Each of the 10 alcoves off the main evolutionary pathway has a small circular video screen showing live-action footage (or animated, in the case of extinct species) of the animals examined there. A computer station lets visitors access charts, written information, drawings, and videos of curators explaining aspects of the exhibit. Altogether there are some 35 hours of computer and video programming and six to seven hours of reading material in the exhibit.

While much of the exhibit design is based on hard science, and computer terminals let visitors examine various aspects of evolution in some depth, the often playful mounting of fossils and the airy nature of the halls ensure everyone will have fun here. As a result, the exhibit reaches out to a broad range of audiences, from big-city kids and tot-toting parents to amateur paleontologists. *C.A.P.*

In the past, most artifacts were kept in display cases in generic gallery space (1). The new exhibit starts with a diagram in the terrazzo floor showing the common ancestors of all mammals (2). Along the main path are various "nodes" that explain key mammalian features (3). Off the nodes are alcoves focusing on groups of mammals. Metal rods outline animals when complete skeletons don't exist (4). The new exhibit hardware and walls do not touch the old architecture (5).



1



2



3



4



5

For a museum dedicated to a still-evolving art form, the Burdick Group designed a range of exhibits offering both shared and individual experiences.

Rock and Roll Hall of Fame and Museum, Cleveland

Designing exhibits for people to interact with and explore in different ways is difficult enough. But when the subject itself is still changing, there is a whole other level of challenge. "This isn't the Renaissance," says Bruce Burdick of rock and roll. "It's an art form that is still alive, still evolving." The Burdick Group's exhibits for the Rock and Roll Hall of Fame and Museum, now under construction on Cleveland's North Coast Harbor, will try to capture the dynamic energy of its subject, while accommodating new material and changing displays.

The building, designed by Pei Cobb Freed & Partners and scheduled to open by September 1996, is "a glass-and-steel tent," says Susan Burdick. The main exhibit space of 30,000 square feet is one level below the ground floor, and the Hall of Fame portion is one level above. A circulation tower connects all levels and provides a pivot from which a cafe, various exhibit spaces, and theaters are cantilevered.

Both the museum's architecture and its exhibits rely heavily on materials such as metal and glass that evoke the hard-edged esthetic of rock and roll. "We think of our exhibit designs as being somewhere between Carlo Scarpa and *Bladerunner*," says Bruce Burdick. And like movies and music, light and sound play important parts in the exhibits. In some ways the exhibits are a giant stage set in which some of the scenery will change and lighting levels vary. Unlike museums where silence is part of the experience, the Rock and Roll Hall of Fame and Museum will indulge visitors with overlapping sounds as they move through the exhibits. Interactive exhibits, though, will provide headsets for "discreet" sound.

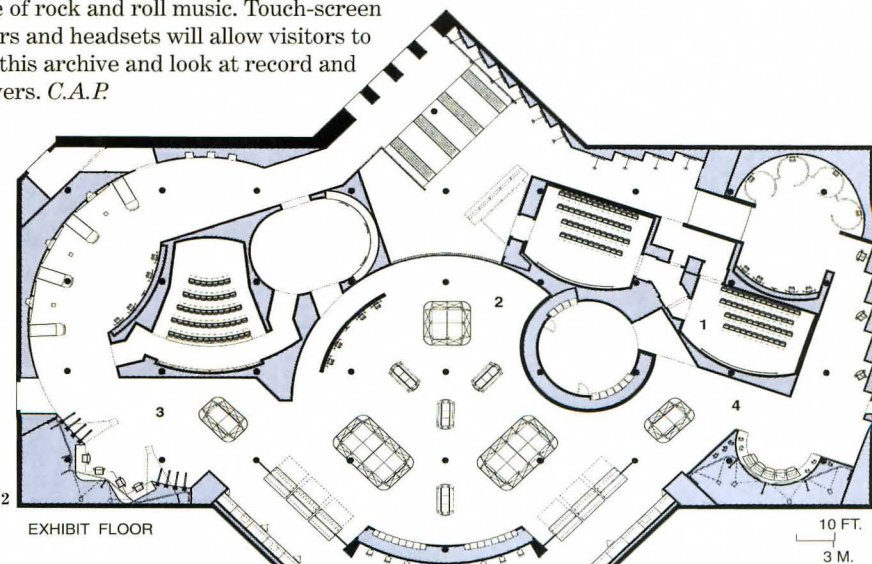
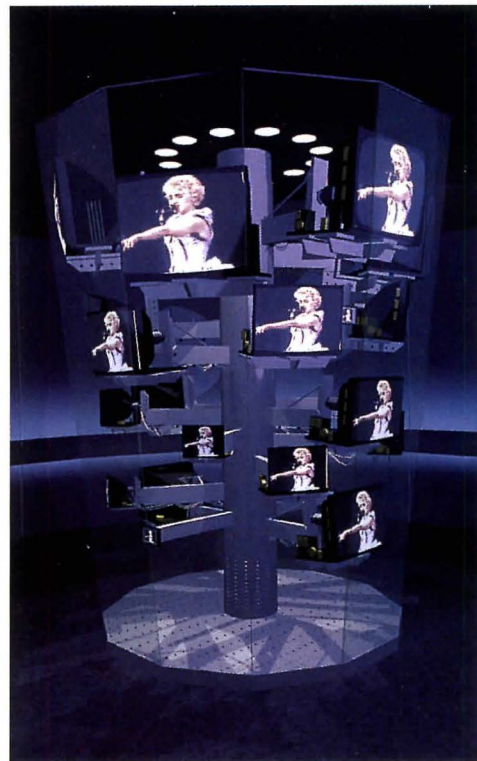
Although the exhibits are laid out so people can move according to their interests, most visitors will start in a pair of theaters that tell the history of rock and roll. From this large-group space, visitors will roam through exhibits they can view and interact with individually or in small groups (2, right). After finishing with the displays, they will climb stairs to the Hall of Fame.

Displays of rock-and-roll artifacts can quickly become dull (especially to kids who have already seen guitars and costumes on view at, say, a Hard Rock Cafe), therefore the museum's curators and the Burdick Group developed several kinds of multimedia displays that look at different aspects of the rock-and-roll world. For example, the "performer experience" exhibits look at bands on tour. One of the first will examine the Rolling Stones' Steel Wheels Tour, using pieces from the band's spectacular stage set, projected images from the tour, artifacts, and videos with tour outtakes (4, opposite).

How rock changed society

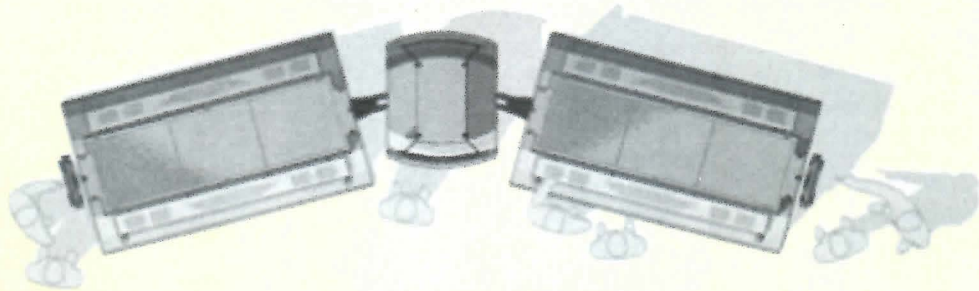
Similarly, "social experience" exhibits will examine the impact of rock and roll on society. For example, "Little Richard's House of Style" will show how rock and roll has affected fashion, using a multi-screen video program, images projected on a scrim, artifacts, and mannequins modeling clothing and hairstyles. Other exhibits will focus on particular artists, displaying artifacts and photographs. Reflecting the advent of music videos, the museum will also include video "trees" with monitors of various sizes (1).

One great asset of the museum is its sound archive of rock and roll music. Touch-screen monitors and headsets will allow visitors to access this archive and look at record and CD covers. *C.A.P.*

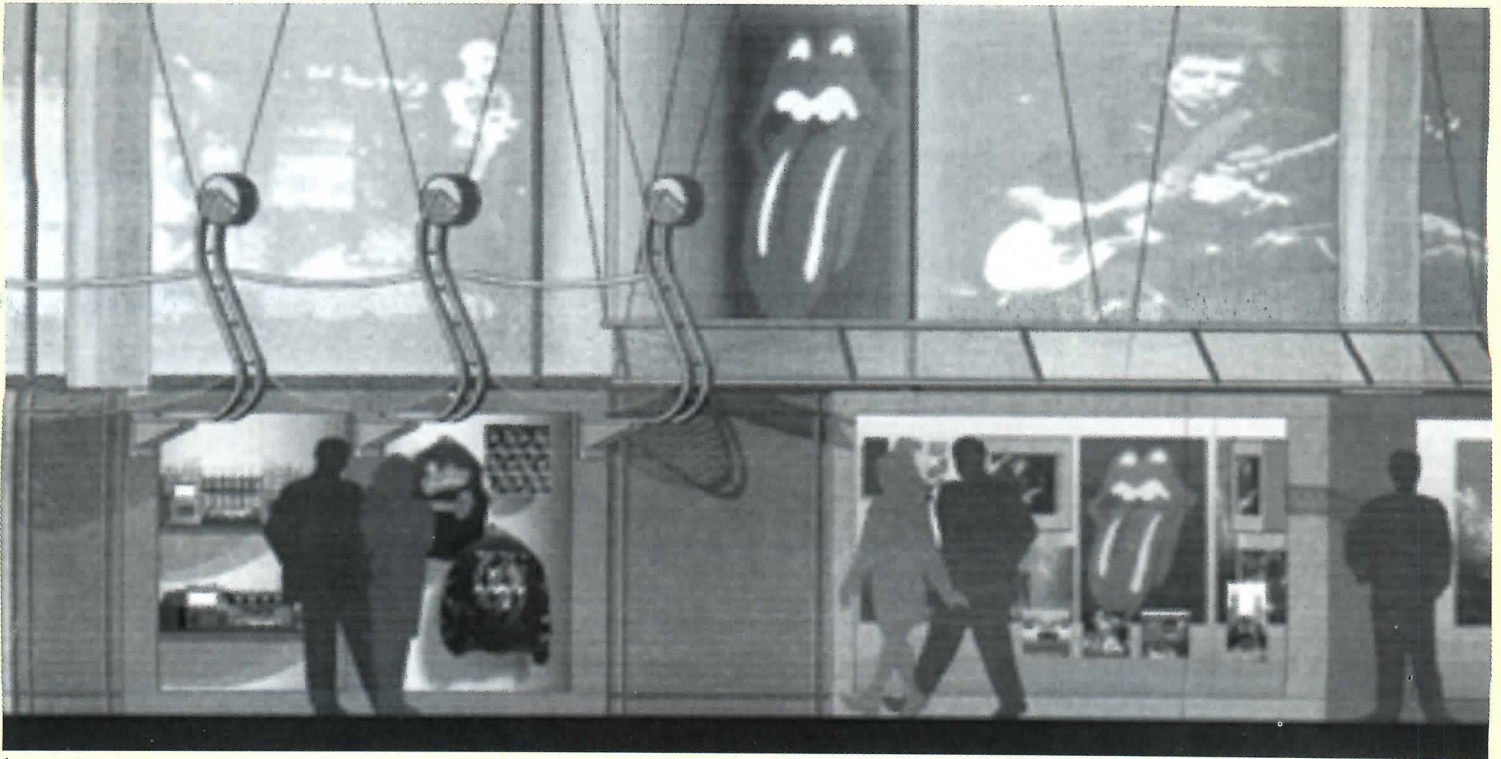


1. Theaters
2. Artist-focused exhibits
3. Performer experience exhibits
4. Social experience exhibits

Designs are not final, but exhibits will include "video trees" (1), artist-focused displays combining artifacts with sound (3), and performer-experience displays such as one documenting a Rolling Stones tour (4).



3



4

Inexpensive Software for Production

It strikes us this month that there is still plenty of good DOS software around, despite the onslaught of Windows and Power Macintosh packages. Prices are attractive, and DOS software tends to run faster on older, smaller equipment. Look at DataCAD this month; \$149 buys you more functionality than \$4,000 did a few years ago—and it runs on computers of a few years ago, too.

Nevertheless, there are limitations. The best Windows software is just plain easier to use. This month's review of Scitor Project Scheduler is an example. For data-entry-intensive tasks, the cleaner, more intuitive on-screen interface makes up for lack of raw speed compared to DOS competitors.

And DataCAD, being a DOS product, must rely on its own drivers for plotting and printing—or offline file creation followed by plotting from a separate utility. The drivers cover all the bases now—HPGL, CalComp, and so forth—but may not in the future. Windows software usually uses Windows drivers to connect with a printer or plotter. Vendors of new equipment will always provide them.

Thus, you won't be able to stay with DOS forever. But for the next year or two, why not? *Steven S. Ross*

Advanced Architecture for AutoCAD 12

Vendor: Eagle Point Software, 4131 Westmark Drive, Dubuque, Iowa 52002-2627, 800/477-0909, 800/925-9393 \$1,195; \$1,495 with quantity takeoff and estimating module.

Equipment required: Any computer that can run AutoCAD Release 12 for DOS or Windows.

Looking for ways to speed drawing tasks in AutoCAD? We took a long look at two separate versions of this add-on—one for Release 12 for DOS, the other for Release 12 for Windows. The vendor is Eagle Point Software, formerly Engineering Data Systems.

We think about add-on software two ways. First, does it allow you to do routine tasks faster, in a logical way? Second, does it allow you to do non-routine tasks—tasks that you might find difficult or near-impossible to handle on your own?

This add-on is aimed more at the “faster” side of the market than the “non-routine” side. It lacks many of the bells and whistles and kitchen sinks built into SoftDesk offerings, for instance. But what it does, it does well—and generally faster than the competition. The speedup is especially noticeable in Windows.

There's also a nice front-end project manager. Covered are walls, doors, windows, stairs, roofs, walk-throughs, space planning, schedules, and plenty of great symbols.

Manual: One large, exceptionally clear loose-leaf arranged by task.

Ease-of-use: Best we've seen in an AutoCAD add-on since GeoCAD.

Error-trapping: As good as AutoCAD's.
300 on Reader Service Card

DataCAD 5.02

Vendor: Cadkey, Inc., 4 Griffin Rd. North, Windsor, CT 06095-1511. 203-298-8888, 800-282-1368, fax 203-298-6404. \$149; training video \$39.95.

Equipment required: DOS computer with at least 80386SX CPU, math co-processor, plenty of random-access memory (we recommend 8 MB if you use the shader program), DOS 5.0 or higher, supported graphics card (most VGA and super VGA cards will do; most “accelerated” cards have suitable drivers as well). Installation of all files requires almost 35 MB of disk space. Using render program requires 256-color graphics (typically, VGA with at least 1 MB of video RAM installed).

How much CAD does \$149 buy? Lots. Earlier versions of this package cost thousands of dollars. You get 2D drafting and 3D modeling, automatic dimensioning, associative dimensioning and hatching (it fills even after you stretch or otherwise modify a shaded

Renderings in DataCAD Professional of Fairways Retirement Community, to be built in Paducah, Ky.



Design by The Weyland Partnership; rendering by Gresham Associates Architects

area), a 256-color quick shader, robust macro language, the Velocity rendering package, a library of symbols and texture maps, and the ability to create walk- and fly-throughs.

This is a DOS, not Windows, package, but the interface is a good one. In fact, when DataCAD first went 3D (in version 3, before Windows became practical), its interface was considered just about the best. It was one of the first packages to allow you to draw a wall as a solid rectangle, then cut in openings, rather than build the wall a stick at a time.

More importantly, DataCAD is easy to draw with; DOS programs (even one as large as this one) tend to be faster and more responsive than Windows. In this case, it is especially so if you can free up 600K or more of "real" DOS memory (the kind below 640K), although it will run in 530K with enough expanded (LIM or EMS) memory.

If production drafting, pure and simple, is what you want, DataCAD has what you need. It is also a good choice for those who must squeeze an extra year of life out of existing, slow computers. If you must constantly exchange drawings and data with a myriad of consultants and colleagues, or if you have high employee turnover, Windows packages may be better choices. Just finding the Quit command (on the utility menu) was a painful exercise for one of our testers. But after a half hour with the menus, everything falls into place. This advice is subject to change, as Windows moves to more powerful machines and full 32-bit processing becomes more common.

Manuals: There are four—a guide for getting started, reference, comprehensive tutorial with architectural examples, and manual to explain macros for automatic drawing of stairs, windows, and so forth. There's a tutorial video at extra cost.

Ease-of-use: Good. This is a DOS program, but with a fine interface for drawing, editing, and moving around an image. Installation can be painful; you may have to rearrange memory to cram it all in. Manually install EMM386.EXE and set it to get at least 3072K of memory.

Error-trapping: Great.

301 on Reader Service Card

Project Scheduler 6 for Windows, V1.5

Vendor: Scitor Corporation, 393 Vintage Park Dr., Suite 140, Foster City, CA 94404, 415-570-7700, \$695; free unlimited technical support. ADDPACK network licenses \$2,835 for five-pack.

Equipment required: Machine capable of running Windows 3.1 in enhanced mode; DOS 4.0 or higher, 4 MB random access memory (we strongly suggest at least 8), VGA or higher resolution. Supports any printer or plotter that has a Windows driver.

This remarkably compact program (the files take only about 4 MB on your fixed disk) offers most of the bells and whistles of modern-day project management—Gantt charts, PERT networks with critical-path charts, dozens of data-analysis options, and even a fairly good networking capability (it can share files across a network, and select from vast oceans of pooled data, but network locking can interfere with other simultaneous users).

The metaphor is mainly one of a spreadsheet; you enter (or import) data into tables, and the

software creates the charts. You can also enter data on the screen itself, in most cases, by pointing and clicking.

As you start, there will be no surprises for experienced users. The default is to schedule all tasks "as soon as possible," but you can also start tasks "as late as possible."

Version 1.5 is the first commercial program of any type we've seen, outside of relational database software and Autodesk's AutoCAD Data Extension, that can pick up only specific fields from a large data set. In this case, it is done by meeting "second generation" ODBC (Open Database Connectivity). This allows the software to handle subsets of huge projects on a small machine. The output is gorgeous, especially on a color plotter.

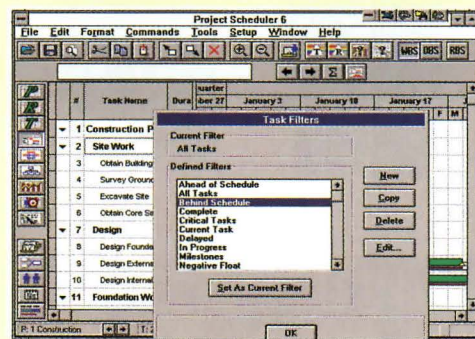
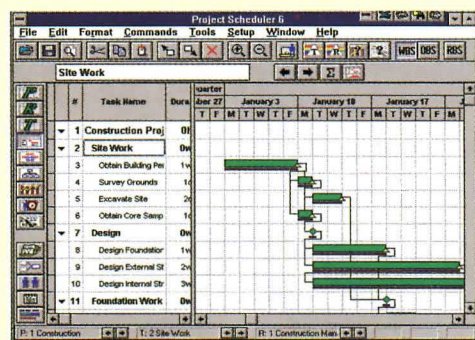
The program is ideal for a medium-size office, or even a small office that must share data with a large one—for working on part of a large project. Its ease of use and easy data exchange makes it a poor choice for "keeping the books" (using billing data as a general ledger substitute) except in single-person firms; it is too easy to change the data with no one noticing.

Manuals: Reference manual, user guide, and slim tutorial. Unlike many project-management packages, which include a standard reference on assigning and leveling resources, various charts, and so forth, these manuals weave the standard stuff in with specifics of the software.

Ease-of-use: Impressive. Each icon gets a little on-screen label as you point to it; fine-tune disk caching to improve speed at which the labels appear. Little "flags" also show up when you point the cursor at sections of the charts; full text for the charts does not always appear otherwise.

Error-trapping: Good.

302 on Reader Service Card



1. On the Scitor Project Scheduler screen, the action takes place mainly in the spreadsheet window. The upper right area of screen shows launcher for Microsoft Office; we used it to move data into and out of this package.
2. You can set "filters" to highlight tasks that are late, early, and so forth

Some Boats, an Architect, and New Furniture

Sailboats do not immediately enter many minds when home furnishings are mentioned, unless in reference to a project by William Pedersen of Kohn Pedersen Fox and Henry Elliot, a 20-year veteran of composite materials work.

Using run-off material from America's Cup boats, the pair crafted a 19-piece furniture set from carbon fiber—a material used in sailboat hull and mast manufacturing that possesses a very high strength-to-weight ratio.

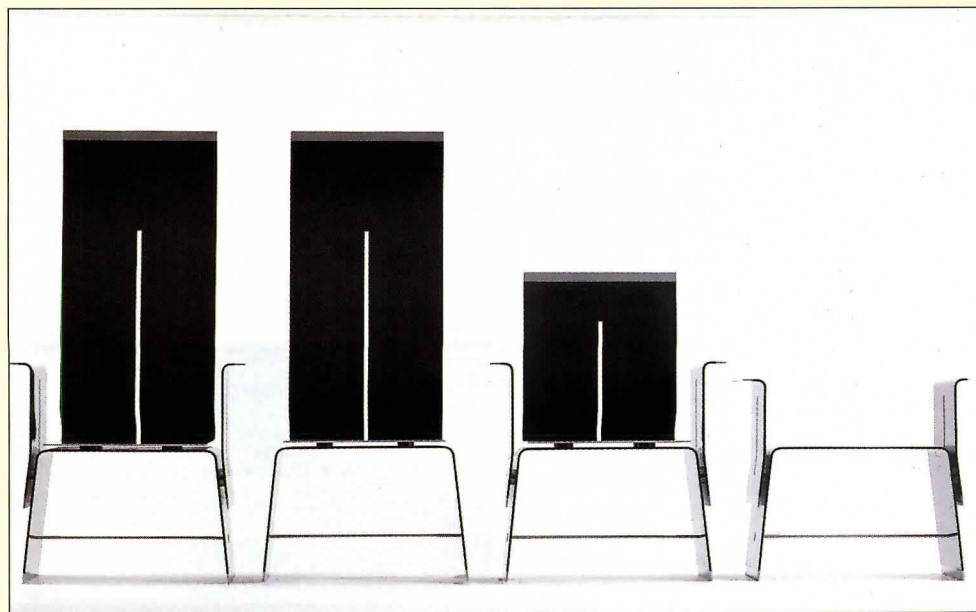
A furniture designer by hobby, Pedersen says he often formulates ideas but seldom pursues them. This time, however, he so admired his designs, so he searched for a material to comply with the drawings' characteristics. A friend connected him with Elliot.

Aiming for visual unity, a combination of basic components—a base, a back, and arms—shapes each piece. A fourth component, a tabletop, is added to make a dining table. Mechanical bolt connections and 1/2-in. by 2-in. disks hold the system together. Comfort is provided with a back that flexes under weight because of a reverse curve at its base.

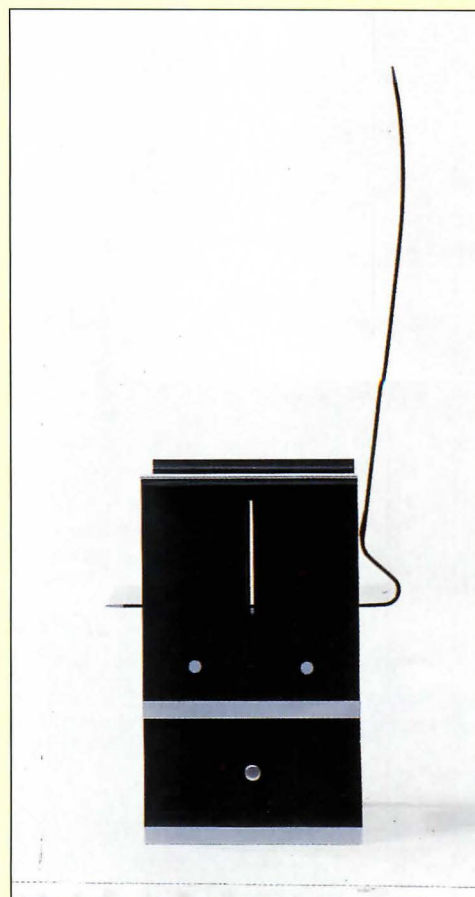
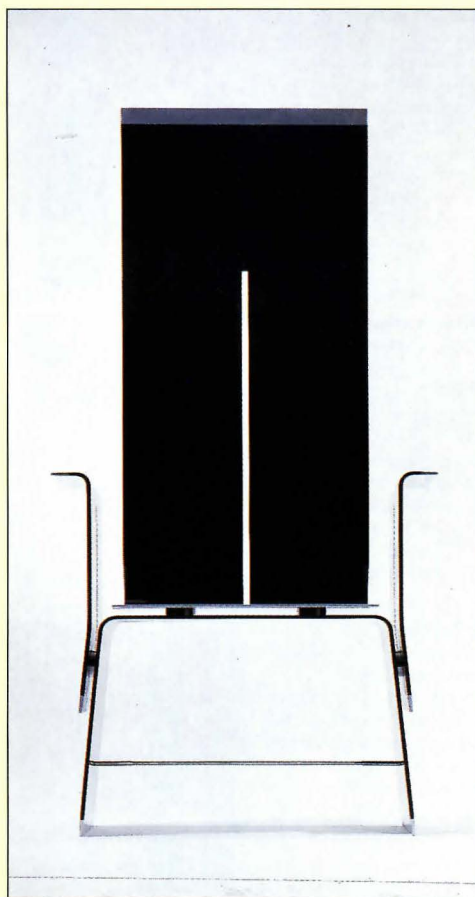
A lamination process combined two carbon-fiber sheets, each .020-in. thick, a 1/4-in.-thick balsa-wood edges, while aluminum trim bound parts of the furniture that would be in contact with the floor. Hand sanding of individual coats of auto-body urethane, followed by a final wet sanding and buffing, gave the furniture its high-gloss appearance. The larger pieces, such as the 6- and 9-ft dining tables and a 6-ft sofa, required structural reinforcement with tie rods, cables, and additional layers of carbon fiber.

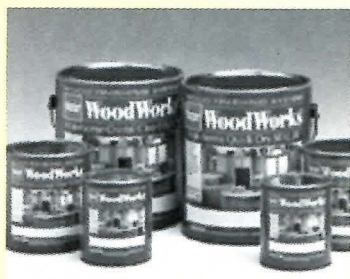
The glossy ebony set includes the dining tables, the sofa, a 4-ft settee, a coffee table, high-back dining chairs with and without arms, low-back dining chairs without arms, a stool, and a lounge chair. A design patent is pending. *Angelica D. Semler*

© Jock Pottle photos



A well-known architect experiments with a lightweight, sturdy material used in sailboat manufacturing to design an innovative, 19-piece furniture set.





303. Waterborne stain

A newly developed line of VOC-compliant, low-odor products for interior wood surfaces, WoodWorks Waterborne includes both ready-mixed and custom stain colors, a colorless sealer, and satin and glossy clear finishes. The acrylic resin used is said to offer extra hardness, durability, and resistance to watermarking. Devoe & Raynolds Co., Louisville, Ky.



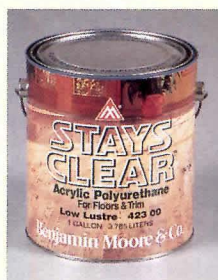
308. Multicolor interior finishes

Two water-based specialty paints, marketed as Polymyx Aegis (pictured) and Zolatone Elites, meet a number of stringent environmental, flame-spread, and installation downtime requirements. Coatings are said to provide visually interesting and durable decoration for commercial, health-care, hospitality, and education interiors. Surface Protection Industries, North Billerica, Mass.



304. Textured but slippery

A siliconized acrylic emulsion, Silcoat is designed as a water-repellent finish coat over EIFS walls, as well as for direct application on other porous substrates such as poured concrete, concrete masonry, and conventional stuccos. Its "waterslide" effect—water beads up and rolls off—is said to minimize mildew-promoting dampness and dirt pick up. Senergy, Inc., Cranston, R.I.



309. Never yellow

A new product for use on new or previously painted, stained, or varnished interior wood surfaces, especially floors and trim, Stays Clear is said to combine the attributes of acrylic and polyurethane. The quick-drying finish is highly resistant to abrasion, alcohol, water, and common household staining agents. Comes in low-luster and glossy finishes. Benjamin Moore & Co., Montvale, N.J.



305. Durable latex

Described as this maker's top-of-the-line interior and exterior system, SuperPaint comes in a range of finishes including flat, satin, semi-gloss, and gloss. When applied according to manufacturer's recommendations over properly prepared surfaces, paint products are warranted for 20 years. The Sherwin-Williams Co., Cleveland.



310. Anti-graffiti system

Sto's two-part system consists of a clear sacrificial barrier coat, for most exterior materials including concrete, tile, metal, and painted surfaces, and a biodegradable, water-based stripper. The easy-to-apply buffer coat can protect large structures for at least a year, is vapor permeable, and is said to remain clear and unobtrusive. Sto Industries, Atlanta.



306. Scrubable flat enamel

A new acrylic-binder paint formulation, Accolade enamel cures to a tight, smooth, non-porous flat film said to achieve an almost perfect result under the "Recovery" washability and stain-resistance standards of ASTM D-3450. The most difficult stains are easy to remove. Available in about 1,000 colors, with a gloss of 0-5 at 60 deg. Pratt & Lambert Architectural Finishes, Buffalo, N.Y.



311. High-traffic texture

Capable of subtle shading contrasts and a large number of different stone- and pebble-like textures, Resistex interior coating can be applied over properly prepared drywall, plaster, masonry, and concrete. Resists mildew, chemicals and common stains, and abrasive scrubbing; vapor permeable, it is described as ideal for bathrooms and other moist locations. Parex, Redan, Ga.



307. Lead-abatement products

Exterior-surface cleaners, undercoating primers, and post-removal binders are offered for different abatement strategies, such as preparing sound lead-bearing paint surfaces for new encapsulating coatings, sealing rust- or water-stained substrates, or locking-down dust particles after a surface has been stripped. Fiberlock Technologies, Inc., Cambridge, Mass.



312. Fire-retardant paint

A range of intumescent and other labeled fire-protective coatings includes FireCoat 320, an interior latex offered in white, black, or tint-base for drywall, wood panels, or other substrates where a Class A flamespread is desired. These paints retard the progress of a building fire, and reduce the amount of smoke generated. Fire Research Laboratories, Albuquerque, N.M.

Building Types Study 720/Record Interiors 1994

These days, a productive office can consist of as little as your lap and some electronic equipment, making even those places favored by Clark Kent for his transformation into Superman seem—in some bizarre time warp—not mere telephone booths, but futuristic workspace capsules. In her report on “alternative officing,” writer Karin Tetlow reviews the current plight of the white-collar worker, whose “non-territorial” places of work may make them into a legion of nomads or even missing-in-actions (pages 88-97). (As one worker put it: “the virtual office equals the virtual job.”) Both clients and architects have a role in relieving the anxieties change creates. Jay Chiat of advertising agency Chiat/Day is leading the way in turning business reorganization into appealing three-dimensional reality, remaking offices in New York City and Los Angeles to accommodate evolving project teams and workgroups. Gaetano Pesce, designer of Chiat/Day New York City, compares his client to an architect, who is “asking what the office of tomorrow will look like.” Redefining stereotypical relationships—between architect and client, old and new, inside and outside, enclosure and openness—is a recurring theme in the projects featured in the following pages and a secret of their success. *Karen D. Stein*

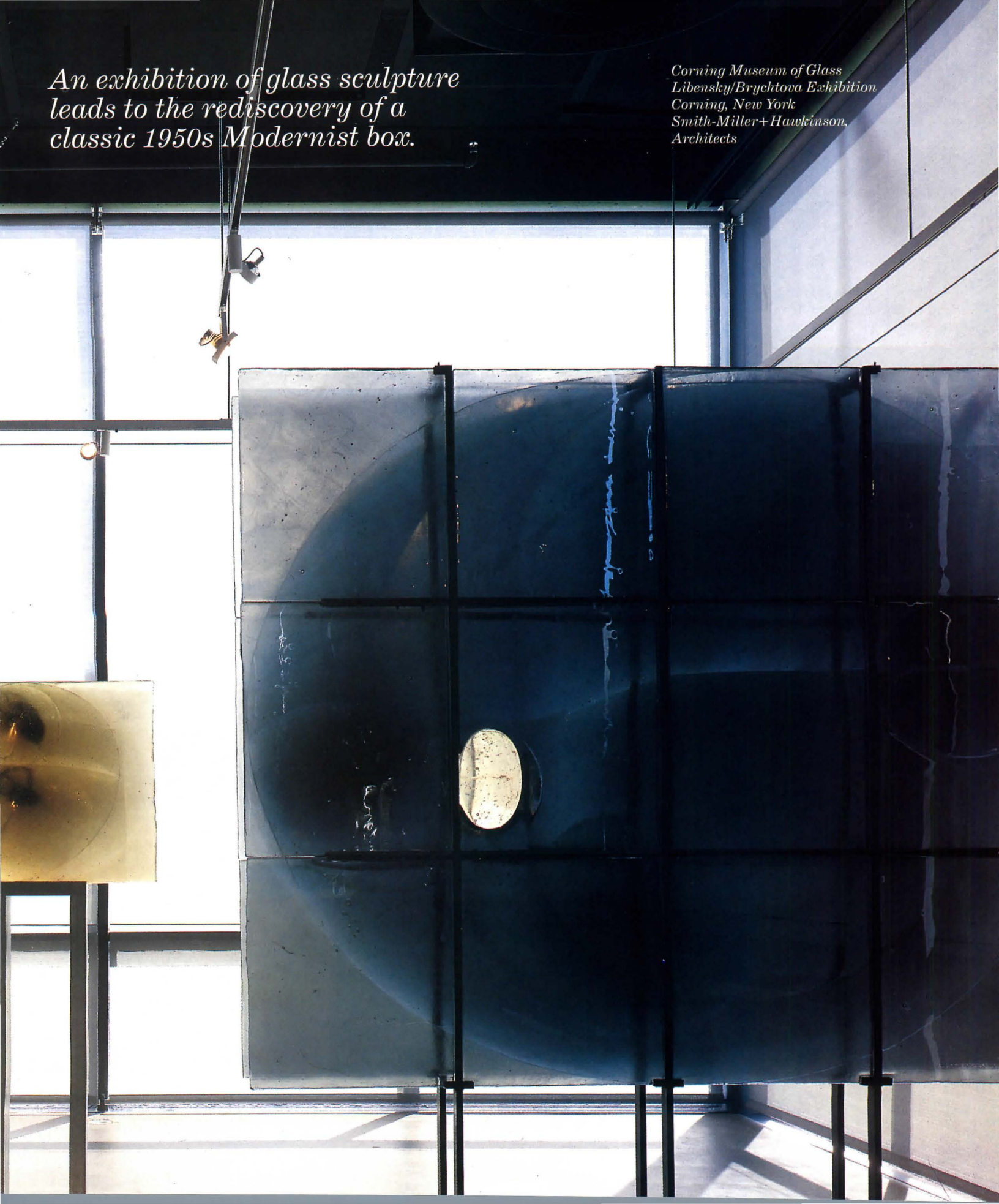
*Manufacturers' Sources
listed on page 119*

Jewel Box



*An exhibition of glass sculpture
leads to the rediscovery of a
classic 1950s Modernist box.*

*Corning Museum of Glass
Libensky/Brychtova Exhibition
Corning, New York
Smith-Miller+Hawkinson,
Architects*



Czech glass artists Stanislav Libensky and Jaroslava Brychtova, whose work is on exhibit at the Corning Glass Museum, have been collaborating to produce glass sculpture since the mid-1950s. Their work ranges in size from small bowls to huge glass walls incorporated into buildings. Displaying the work is a challenge. Susanne K. Frantz wrote in her book, *Stanislav Libensky Jaroslava Brychtova*, "The Libenskys have always believed the primary function of glass in architecture is 'to bring light' and that the penetration of the glass by the light, rather than the mere surface illumination, is required to push their sculpture beyond decorativeness...the surface is smoothed to create a solid but transparent form whose interest for the viewer emerges from the inside."

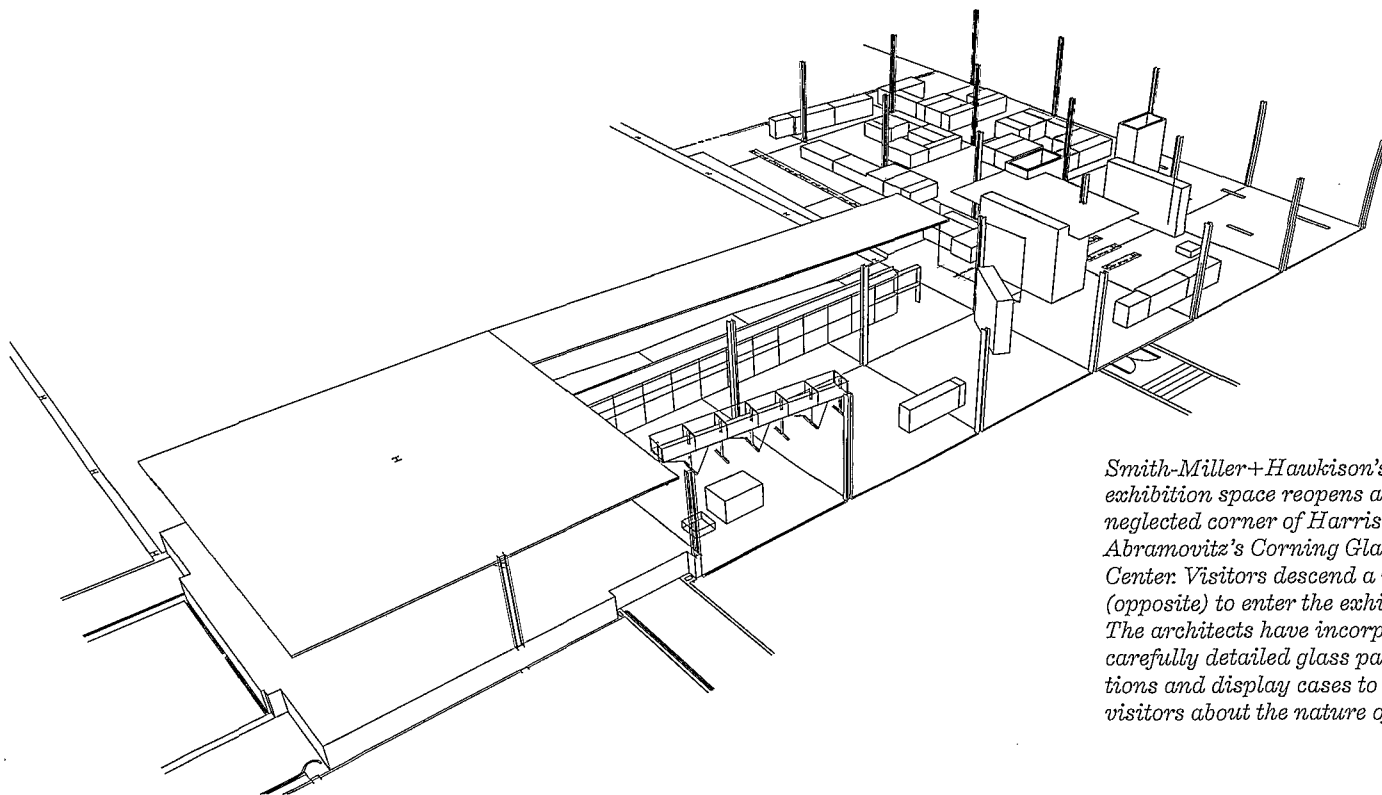
When architects Henry Smith-Miller and Laurie Hawkinson were hired by Corning to develop space for the exhibit, they found a forgotten corner of Harrison and Abramovitz's 1950 Corning Glass Center. Smith-Miller described the once-open steel-framed structure as "a glass-walled, 20-by-20 grid—a Utopian box. Harrison had envisioned that the whole central space of the visitor's center should be opened up to the exterior." But over years the open space was filled by a kitchen, cafe, and storage; openness vanished and its glass exterior was covered up. Dropped ceilings covered the original steel roof construction. Smith-Miller and Hawkinson persuaded their client to rip out the newer construction and go back to the original open design as a starting point. "Basically, it was a recovery of floor space that was poorly utilized," according to Corning's project manager Ken Jobe.

Beyond recovering this open space, Smith-Miller and Hawkinson's design shows a deep understanding of how the Libenskys' sculpture is best revealed: in neutral surroundings with a lot of strong light. Daylight backlights the sculptures through full-height windows, tempered by window shades of metallic-finished fiber mesh. Electric lighting for exhibits, designed by Claude Engle, is provided by

adjustable fixtures on suspended light track. The new exhibit space begins at the upper entrance lobby, adjacent to Gunnar Birkerts' Corning Museum of Glass. Here a glass wall allows a view of about half the exhibit space, before visitors descend a ramp to view the glass objects. The ramp is enclosed on one side by a slanting wall that gradually increases in height as the visitor approaches the exhibit. The effect creates anticipation that is immediately satisfied at the bottom of the ramp, where the exhibition begins beyond a second panel of glass.

Smaller objects are displayed in vitrines and display cases that make their own statements about glass. "This building is all about glass," says project architect Eric Cobb "and the displays are all about glass—its technology, its properties, what it looks like on the edge, how it's held together. You look through a glass wall and you see a very carefully detailed glass and steel vitrine whose joints are held apart just so far, and it's filled with glass objects. The piece of glass that is holding you away isn't invisible, it has a presence in itself." To display some of the larger pieces of glass, the architects designed a series of plinths, made of gray-stained birch plywood. "The stained wood has a dense and reflective and refractive quality for the glass, and so it was a good complement for it. We thought about how to bring the work up to eye level," says Smith-Miller, "because the artists, who worked together with us on the layout of these, thought there should be an immediacy between the visitor and the work." Similar construction was used to build a cabinet that encloses a monitor that shows a videotaped program of the Libenskys' work. "It's kind of a De Stijl pavilion in the middle of a Miesian box," says Smith-Miller.

Corning's former director of architecture Samuel Frank says in tribute to the work, "It is not the most common thing to accommodate the needs and values of a corporate client and the needs and values of artists in one project, and this work does. This is a pretty remarkable achievement." *Charles Linn*



Smith-Miller+Hawkinson's new exhibition space reopens a neglected corner of Harrison & Abramovitz's Corning Glass Center. Visitors descend a ramp (opposite) to enter the exhibition. The architects have incorporated carefully detailed glass partitions and display cases to teach visitors about the nature of glass.



©Paul Warchol photos



Architect Henry Smith-Miller characterizes Harrison and Abramovitz's original 1950 structure as "a glass-walled 20-by-20 grid—a perfect Utopian box." Designer Wallace Harrison envisioned an open, light-filled building. Although built with glass exterior walls, the building is actually quite industrial in nature, and was reportedly constructed so it could be converted to factory use if the need arose during the Korean War.

Glass artists Stanislav Libensky and Jaroslava Brychtova began collaborating in Communist Czechoslovakia not long after this building opened. Their work was largely unknown in the West for many years; still, their ideas about bringing light into architecture share threads with those expressed in the Harrison building.

Smith-Miller and Hawkinson designed a series of gray-stained birch plywood plinths (left) to bring the Libenskys' cast-glass sculptures closer to visitors' eye level. Strong daylight, filtered through metallic mesh window screens, backlights the luminous sculptures with additional lighting provided by fixtures on suspended light track. A small seating area, where visitors may view a video, is shown opposite.

Credits

Corning Museum of Glass
Libensky/Brychtova Exhibition
Corning, New York

Architect: Smith-Miller + Hawkinson Architects—Laurie Hawkinson, Henry Smith-Miller, partners; Eric Cobb, project architect, with John Conaty, Peter Cornell, Benn Dunkley, Michael Hirsch, Lawrence Ko, Virginia Navid, Brian Oster

Engineers: Ove Arup & Partners—Caroline Fitzgerald (structural); Jaros Bawn & Boles (mechanical/electrical)

Consultants: Claude Engle Lighting—John Wood (lighting); Martin Meyers (special finishes)

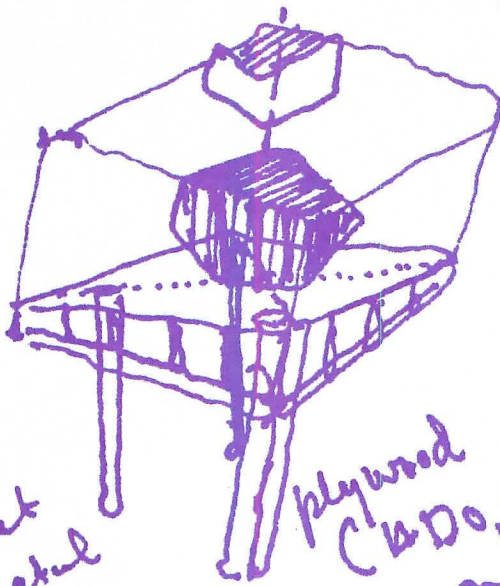
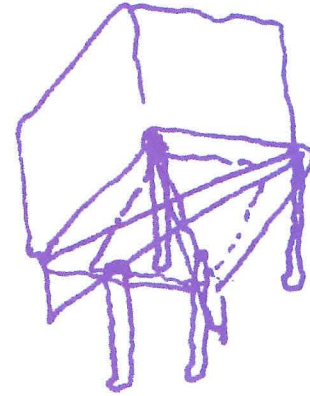


Post-industrial Encounter

In two projects by Eric Owen Moss, old structures confront new uses with a rough-tech apparatus that reveals as it assembles.

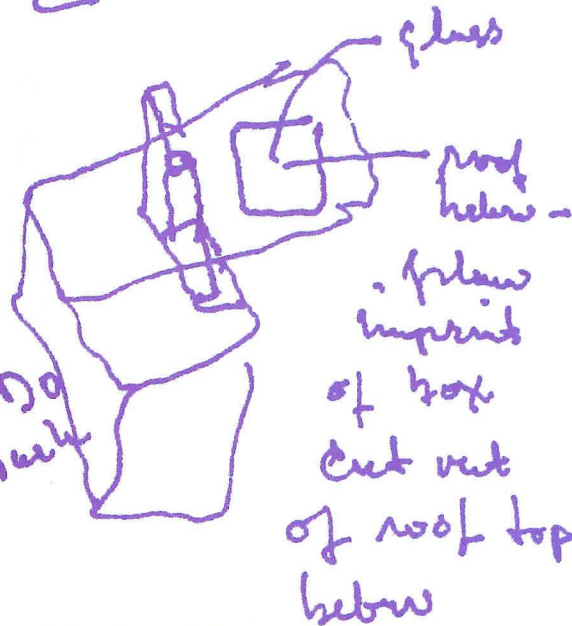
Stewart
5/20/90

interior
HVO
flam
walls
ceiling

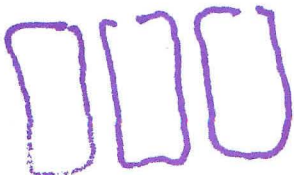
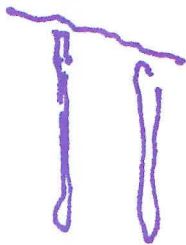


sheet
metal
box

plywood
C 120, m 20
on back



glass
roof
below -
flam
imprint
of box
cut out
of roof top
below



© Tom Bonner photos



3520 Hayden Avenue

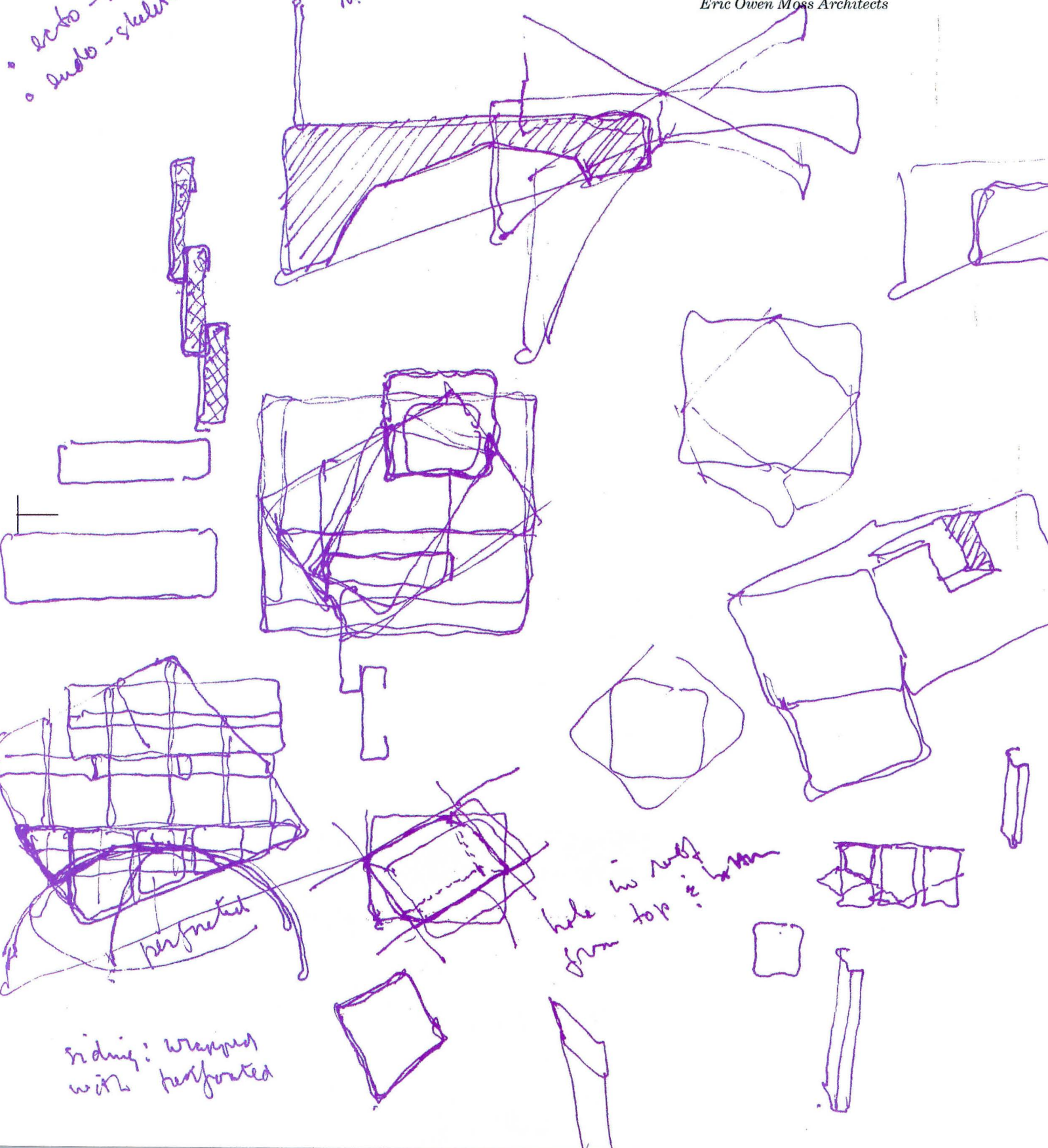


The Box

3520 Hayden Avenue and
The Box
Culver City, California
Eric Owen Moss Architects

• auto-skeleton
• auto-skeleton

metal rods



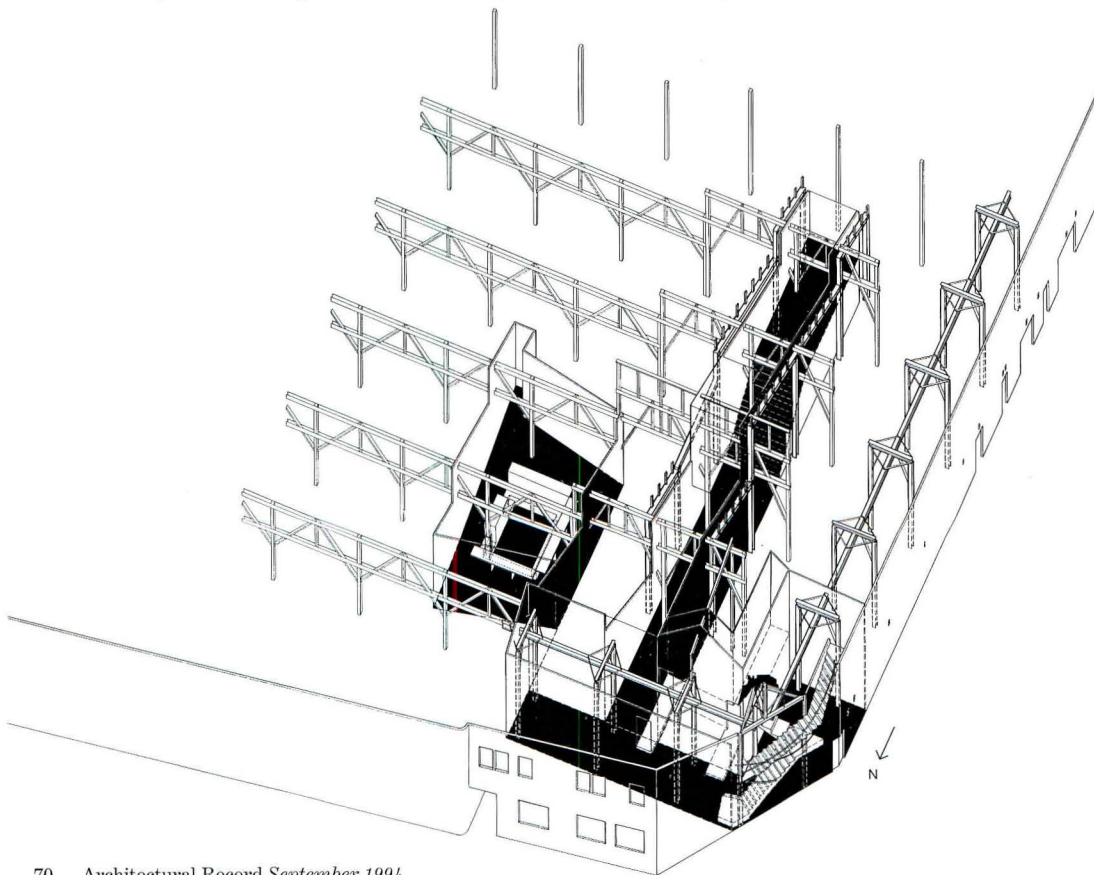
siding: wrapped
with perforated

hole in roof
from top

The new home of IRS Records, one of the hippest record labels in Los Angeles is 3520 Hayden Avenue [RECORD, July 1994, pages 62-69]. The company's trademark logo, a sinister figure right out of a detective movie, presents itself in the same renovated industrial complex of which The Box is part. Here the logo's outline-man is bent, tilted, and caught in an elaborate frame of glass and steel. Enter and you find yourself in corridors much taller than they are wide, which lead to offices of equally strange proportions, all split down the middle by a courtyard bridged by walkways and offices. Bits of steel-frame truss and green-painted wood beams slice through, and what look like leftover skylights illuminate rooms.

However confused IRS Records might seem, there is a simple logic to all of its parts. Says Eric Owen Moss "I cut only where necessary. I am interested in making spaces, not hardware." In this case, the strategy was to retain an existing L-shaped gantry to provide visual and organizational order for the reuse of 30,000-square-feet of old factory building. The intersection of the two legs becomes the exposed corner entrance, where new and old are joined. The short side of the bar leads to the support services, while the long bar disappears into a row of offices. The courtyard parallels this long line of steel frames, and separates the offices of the record company from its twin, a movie and video production company. The former has the gantries to give it order, and the latter centers around a particle-board "conversation pit," where the staff gathers to watch and discuss works in production. A bridge links the two sides, and supports the hide-away office of the CEO.

The architecture controls the encounter between the old structure and new uses with a rough-tech apparatus that reveals the old as it assembles the new. This is true from the billboard-like explosion of the front space, to the backstage experiences of the public areas, to the zen-like pattern of fragments in a new white wall. *Aaron Betsky*



Credits

3520 Hayden Avenue
Culver City, California

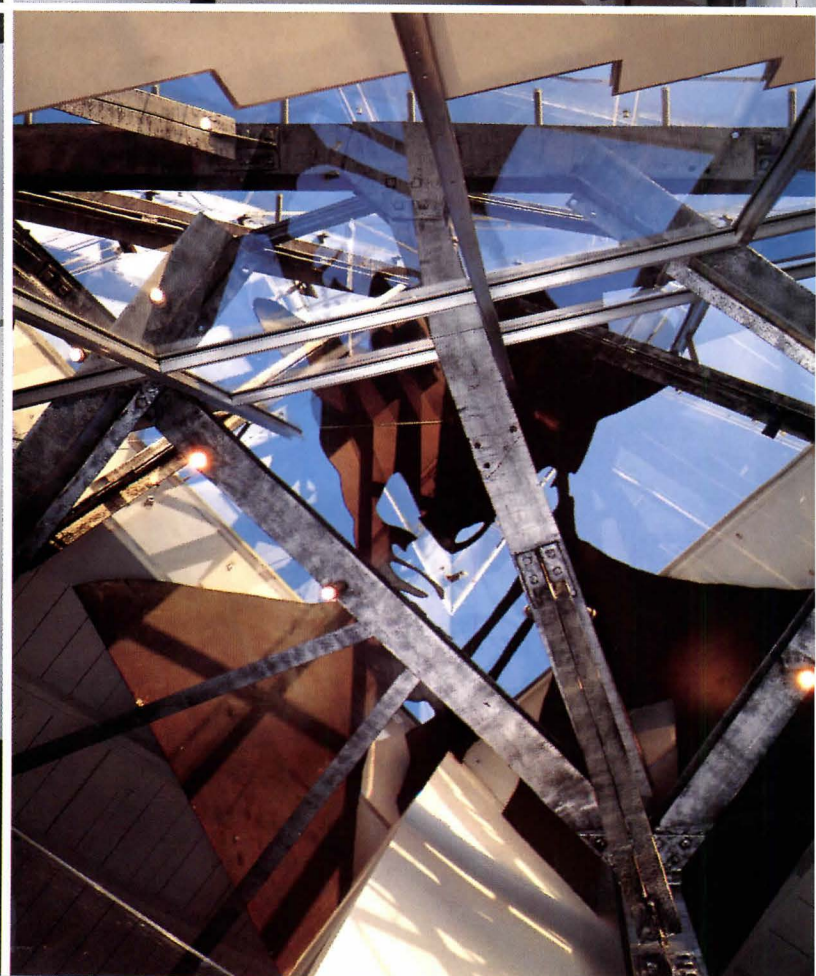
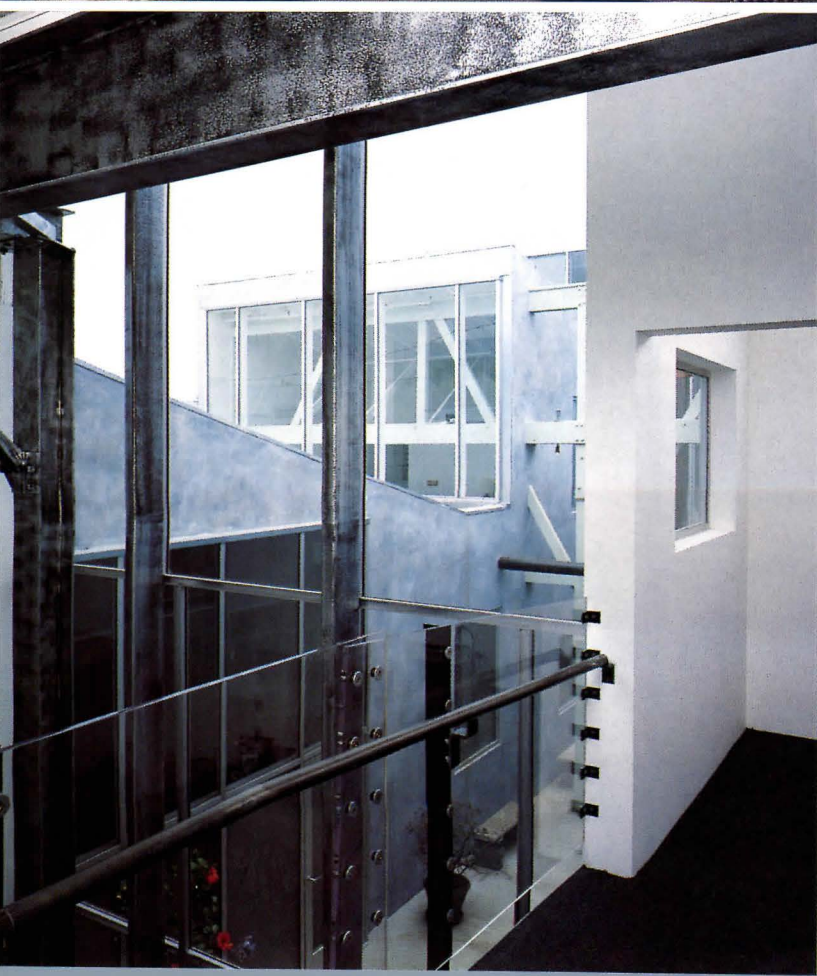
Owner: Frederick Norton
Smith

Architect: Eric Owen Moss
Architects—Eric Owen Moss,
principal; Jay Vanos, Mark
Przekop, Scott Hunter, Scott
Nakao, Eric Stultz, Naoto
Sekiguchi, Sophie Harvey, Paul
Groh, Ravi Subramanian, Todd
Conversano, Thomas Ahn

Consultants: Kurily, Syznan-
sky, Tchircow, Inc. (structural);
John Snyder and Assoc. (electri-
cal); I&N Consulting Engineers
(mechanical); Steven Ormenly
(landscape)

Contractor: Samitaur Con-
structs—Peter Brown,
superintendent





A box is a container, pure and simple—unless Eric Owen Moss designs it. This 720-square-foot conference room and reception area added to a warehouse in Culver City, California, is destabilizing, warped, and ideal. As Moss puts it, “I opened up Pandora’s Box. But, remember, in the myth, hope is the only thing still in that box. This is an optimistic piece of work. It’s about building.”

It is supported conceptually and structurally by a sphere: an implied volume that marks off the lower space with a round colonnade surrounding the proposed reception area, and traced with a staircase that snakes from behind to the outside, and then back into the box proper. It only shows as an arched porch on the mezzanine just below the box. This incision implies an ideal shape as it carves open the existing building to allow the box to pop out into the air.

Clad in black pigmented stucco, the form has a mysterious aura. As the most visible part of a development that is mainly interior, it is a less than self-confident symbol of renovation, representing the uncertainty at the core of the urban experience. And yet the experience inside the box is one of complete serenity, a liberation from the force of day-to-day demands. “The Box” is not without precedent, as Moss is the first to admit. Whether consciously or not it refers to Frank Gehry’s own seminal house in both its form and tilted corner window. “The Box” is Moss’s latest shape to destabilize the relationship between inside and outside; form and function; ideal and reality. It is a kind of boxing match between these forces. *Aaron Betsky*

Credits

The Box

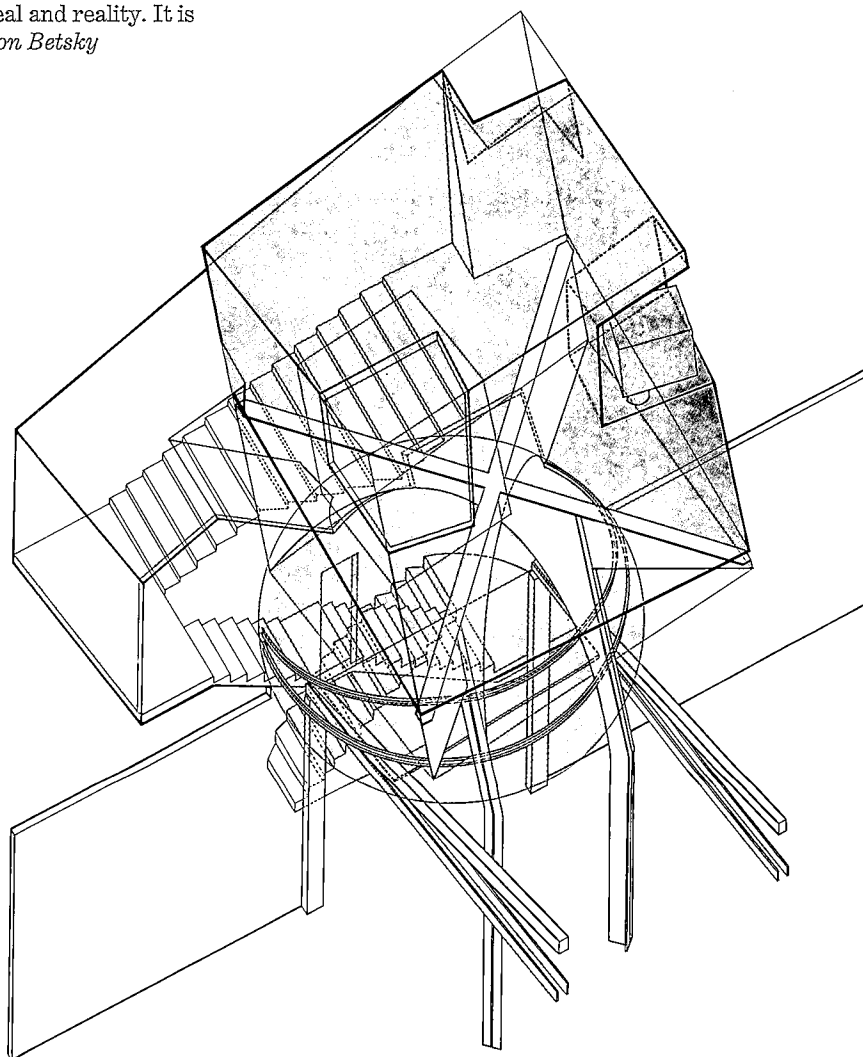
Culver City, California

Owner: *Frederick Norton Smith*

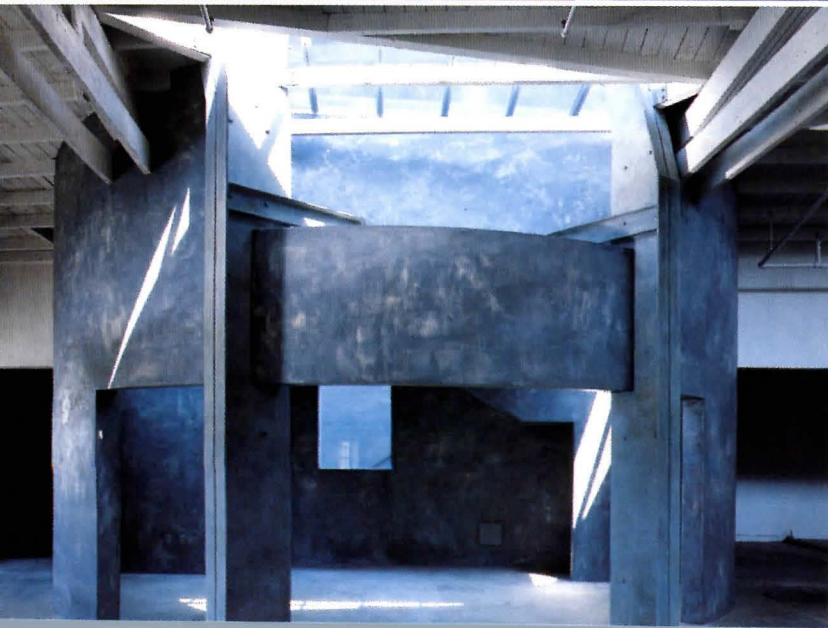
Architect: *Eric Owen Moss Architects—Eric Moss, principal; Jay Vanos, project architect; Lucas Rios, Scott Nakao, Scott Hunter, Eric Stultz, Todd Conversano, Sheng-Yawn Hwang, Paul Groh, Thomas Ahn, project team*

Engineers: *Kurily, Syzmansky, Tchircou, Inc.—Joe Kurily (structural); John Snyder and Associates—John Snyder (mechanical/electrical)*

General Contractor: *Samitaur Constructs—Peter Brown, superintendent*

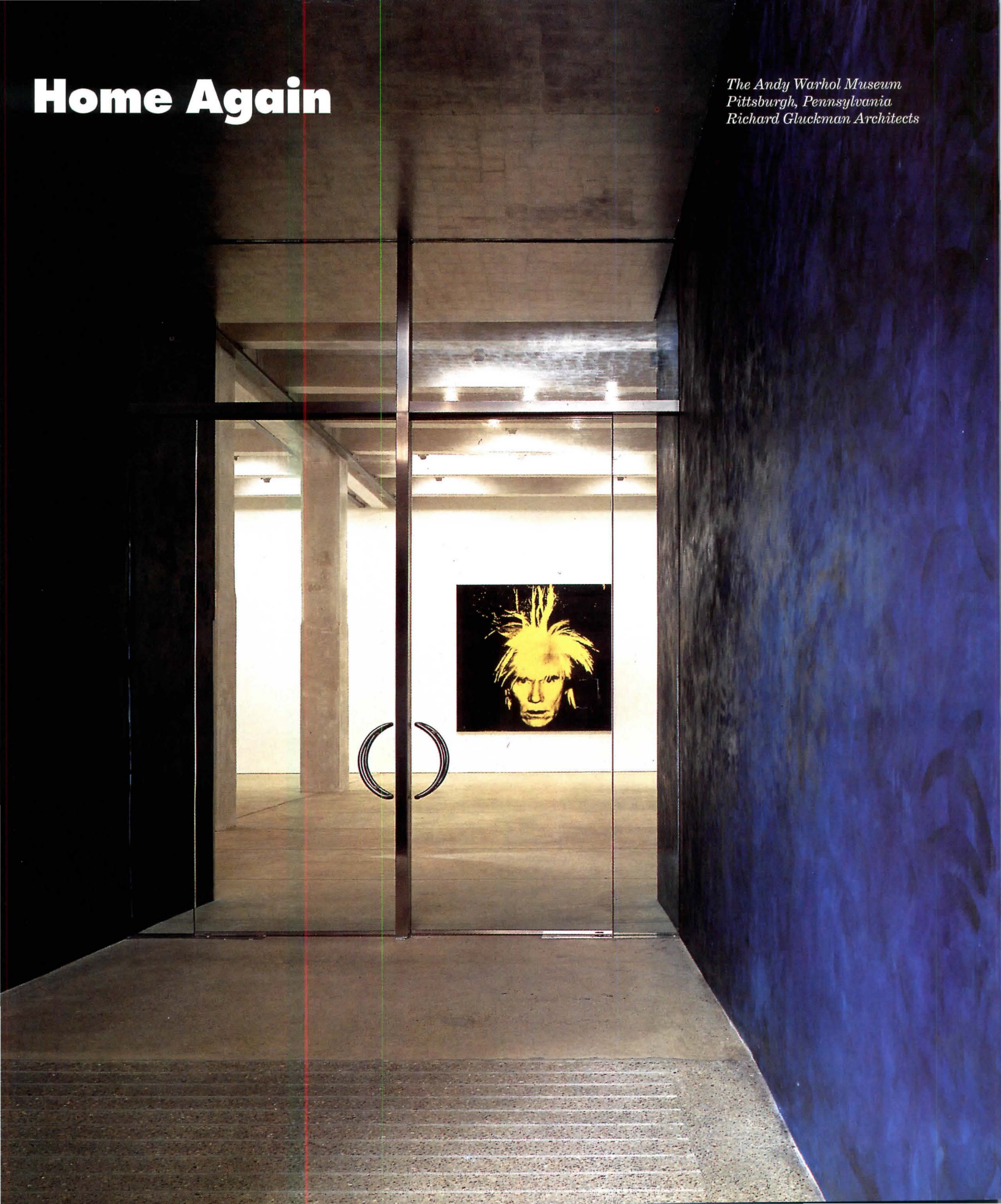


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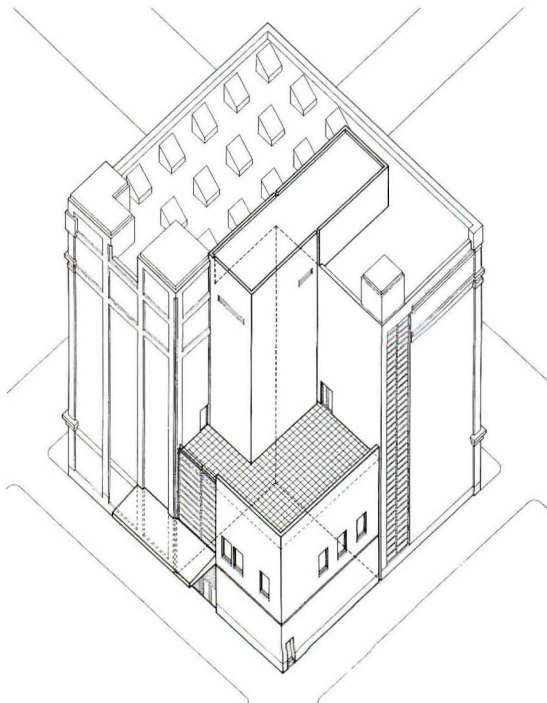
Home Again

*The Andy Warhol Museum
Pittsburgh, Pennsylvania
Richard Gluckman Architects*





Richard Gluckman restored the terra-cotta exterior of the former Frick and Lindsay building and replaced the crumbled cornice. Built three bays wide along Sandusky Street in 1911, the 7-story structure was doubled in 1922. The architect's 50-foot by 50-foot addition of staff offices, a theater, archival storage, elevators, and mechanical equipment replaces a small brick and wood addition of 1918. His palette includes black-glazed concrete block and yellow brick, which is meant to recall the work of Pittsburgh architect Henry Hornbostel.



You can't go home again, according to Thomas Wolfe. Andy Warhol might have agreed, but the executors of his estate thought otherwise. With some 900 pieces of his artwork and 608 cardboard-box "time capsules" containing the detritus of his daily life (mostly correspondence and, it appears, every party invitation he ever received), the spirit if not the actual being of the Pittsburgh-born impresario and compulsive pack-rat is now permanently ensconced back home. Warhol's vast legacy occupies a 7-story renovated warehouse on the north side of the Allegheny River, opposite the neighborhood he fled at 21 for New York City to remake himself and the art world.

The new museum is the product of a joint venture between the Andy Warhol Foundation (established by Warhol's will for "the advancement of the visual arts"), the Dia Center for the Arts (a principal Warhol collector), and the Pittsburgh-based Carnegie Institute, where the artist once studied. It was designed by Manhattan-based architect Richard Gluckman, who has a reputation for producing low-key backdrops to high-powered art. Gluckman is often described as sacrificing his own artistic sensibility to that of his client, yet both are equally present here, although in different forms. Whereas Warhol achieved prominence by infusing familiar images with shocking scale, color, and authority, Gluckman strives for a subtler melding of new and old.

"A box within a box," says Gluckman of his scheme to create a spare container for art within a terra-cotta shell. New walls currently wrapped in a wallpaper of Warhol self-portraits (on sale at the gift shop) are set four feet from exterior walls, forming glass light wells for the cafe and education center below ground. Joining old and new is a ramped foyer with blue-print-paper tinted-plaster walls and an aluminum-leaf ceiling that make for a dramatic forced perspective. "The first thing you see is art," explains Gluckman of the funneled entrance, which leads to an enormous Warhol self-portrait.

Inside, the galleries are simple and flexible enough to accommodate a range of installations. Gluckman retained the structural grid, replacing an outmoded freight elevator with a concrete staircase elegantly framed by a translucent glass wall. Dropped ceilings and pale-colored plaster walls distinguish circulation areas from high, white galleries with exposed lighting, where Warhol's tireless creativity is clearly the center of attention. *Karen D. Stein*





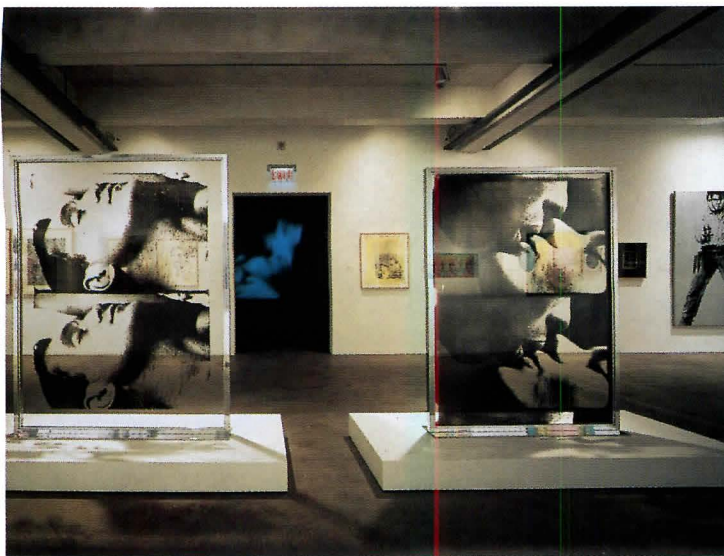
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2



4



Inside, Gluckman replastered existing concrete columns, which gracefully taper from square bases. Galleries are neutral backdrops to Warhol's portraits of the rich and famous (previous pages), including Elvis [Presley] Seventeen Times (2). New light monitors of translucent glass top the film-strip-like Shadows installation (3). Other spaces have a combination of wall-washers and downlights (1, 4). A galvanized-steel ticket desk occupies the lobby (top left). Floors are cork or ground concrete (middle left). "Warhol used known images in unexpected ways," says Gluckman. "That attitude influenced our use of materials." On the sixth floor, a video room is tucked behind exhibition space (bottom left). On the fourth floor, a skinny, double-height gallery dramatizes Warhol's 25 1/2-ft-long pink Last Supper (opposite).

Credits

*The Andy Warhol Museum
Pittsburgh, Pennsylvania*

Architect: Richard Gluckman Architects—Richard Gluckman, principal; David Mayner, project architect; James Leet, job captain; Robert White, Jonathan Bowser, Loren Weeks, David Bers, Robin Corsino Pena, David King, and Eric Lee, team

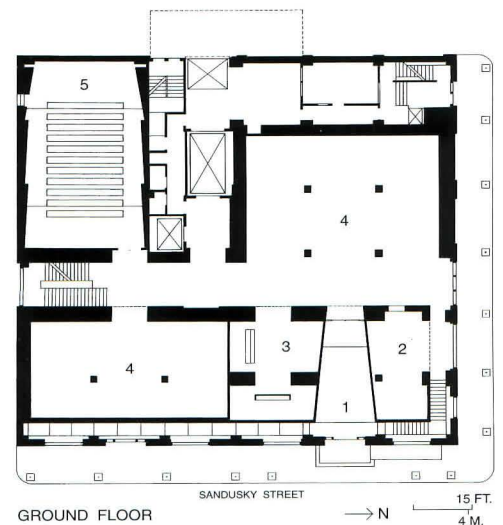
Associate Architect: U.D.A. Architects

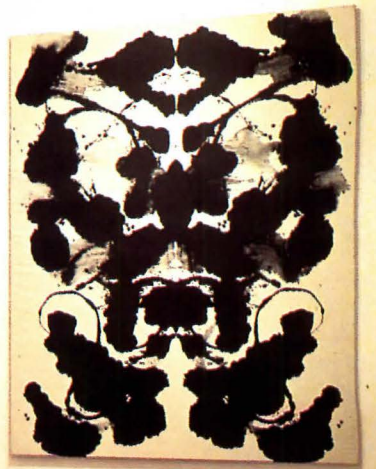
Engineers: Dodson Engineering (mechanical); Hornfeck Engineering (electrical); Dotter Engineering (structural)

Consultants: Garrison/Lull (environmental); Steven R. Keller & Associates (security); George Sexton Associates (lighting); Procom Systems (audio-visual)

General Contractor: Mellon Stuart Construction

1. Entry
2. Museum shop
3. Coat check
4. Exhibition
5. Theater





Suspended Animation

Like a professional basketball player in search of a business suit, the oddly shaped clothing store in Santa Monica, California, called for special tailoring. Only 20 feet wide but 52 feet tall, the 290-square-foot trapezoidal space had the added quirk of being flooded with sunlight from giant clerestory windows and a skylight at the top. And if that weren't enough of a challenge for two young architects, the interior construction budget was just \$8,000.

"It was a tight, compressed space, which suggested a vertical plan," says Lorcan O'Herlihy, who with his partner Richard Warner designed the store interior. "In this project the section is the primary generator of the architecture," explains Warner. Not having the luxury of creating a progression of rooms leading one to another, the architects established a series of stacked spaces sweeping from floor to skylight. The goal was to draw the visitor's eye upward, so the entire shaft of space is occupied visually, if not physically.

O'Herlihy and Warner's scheme was to suspend as many of the store's components from above as possible. Starting at the top, the architects hung a nylon parachute to filter the overwhelming amount

of sunlight coming from above. The translucent fabric brings the height of the room down to more manageable proportions, while still hinting at the space beyond. Next they installed rolled-metal rods, five-eighths of an inch thick, as cross bracing, and hung plywood-and-metal clothes racks from curved rods attached to the bracing. The result is a room where everything seems to float in mid-air, leaving the concrete floor free of clutter.

Along the back of the store, the architects built a folding wall of storage cabinets and display shelves, and tucked in a changing room as well. Made of light birch plywood, the storage wall maintains the neutral color scheme of the store, so the clothes provide the primary accents. Incandescent light fixtures over the storage units wash the back wall with light, while up lights mounted high on each of the room's walls reflect off the parachute above.

While most architecture employs solid planes and surfaces to sculpt space, O'Herlihy and Warner use metal rods, fabric seams, and sharp edges in this store to draw lines around it. Such outlines allow the eye to look through one space into the next. *Clifford A. Pearson*



© Greg Craunford photos

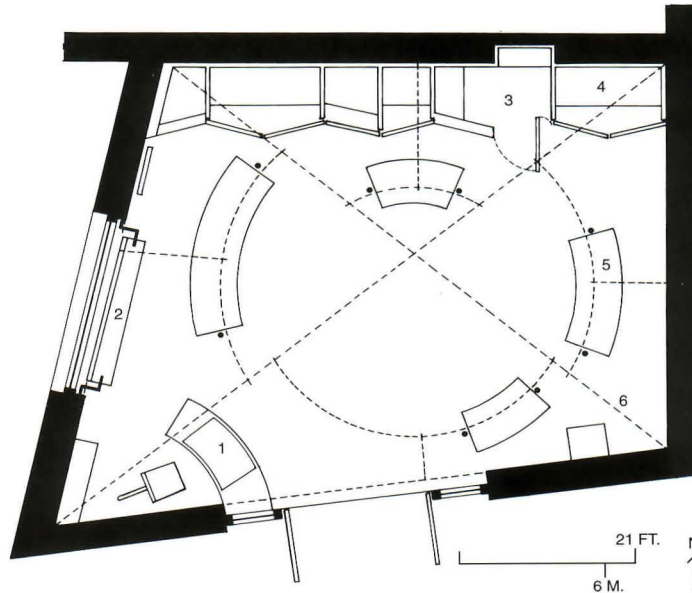
*Harriet Dorn Women's
Clothing Store
Santa Monica, California
O'Herlihy + Warner Architects*

Located in Frank Gehry's Edgemar Development, the store shows what can be done with a minimum of material and money. Clothes racks made of metal rods and birch plywood hang from curved rods and can be moved around. Simple materials such as drywall and concrete floors finished with clear sealer kept the budget to just \$8,000.

Credits

Architect: O'Herlihy + Warner Architects—Lorcan O'Herlihy, Richard Warner; principals; Mark Hirt, assistant

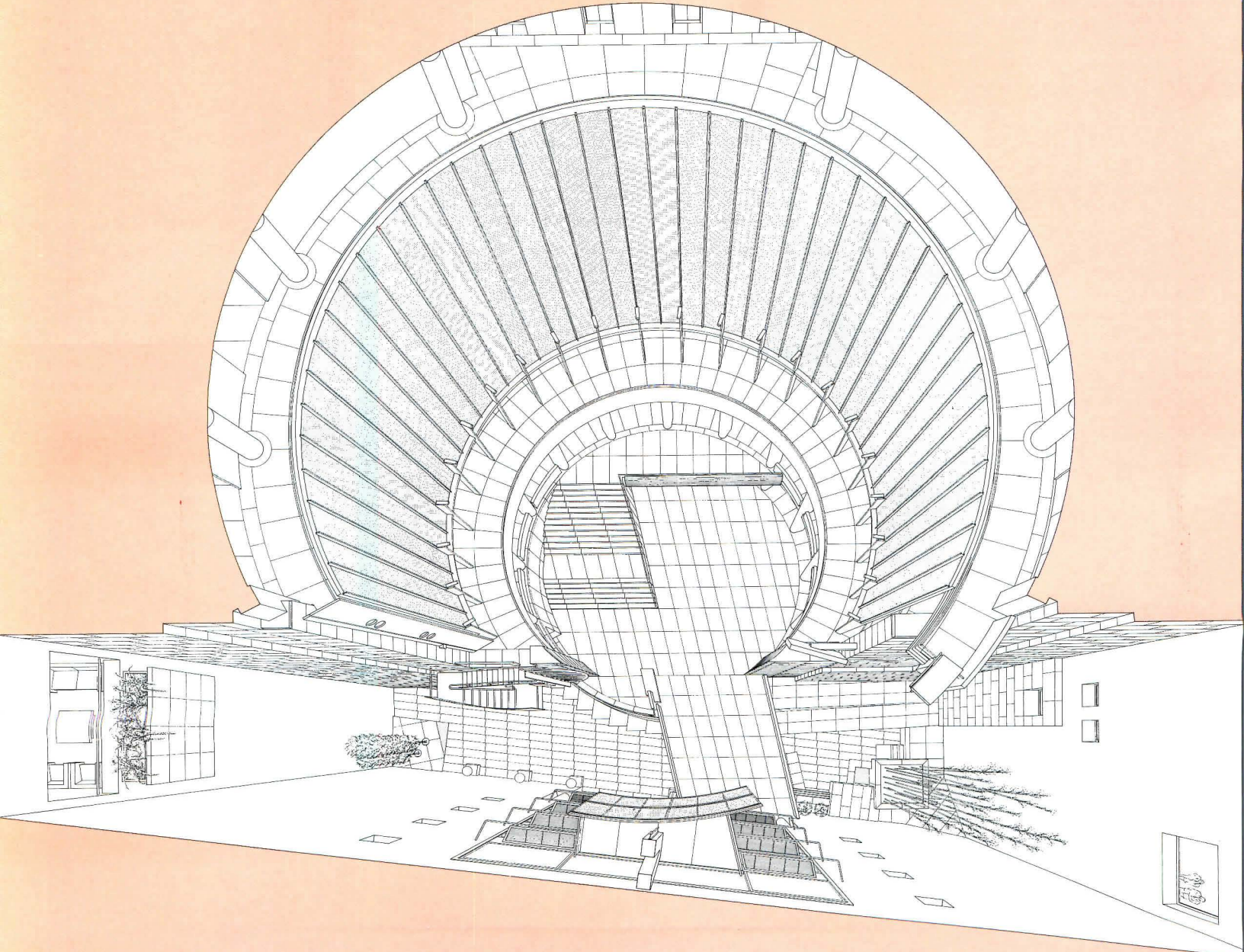
General Contractor: O'Herlihy + Warner



1. Sales desk
2. Display shelves
3. Changing room
4. Storage cabinet
5. Hanging display
6. Steel rods (above)

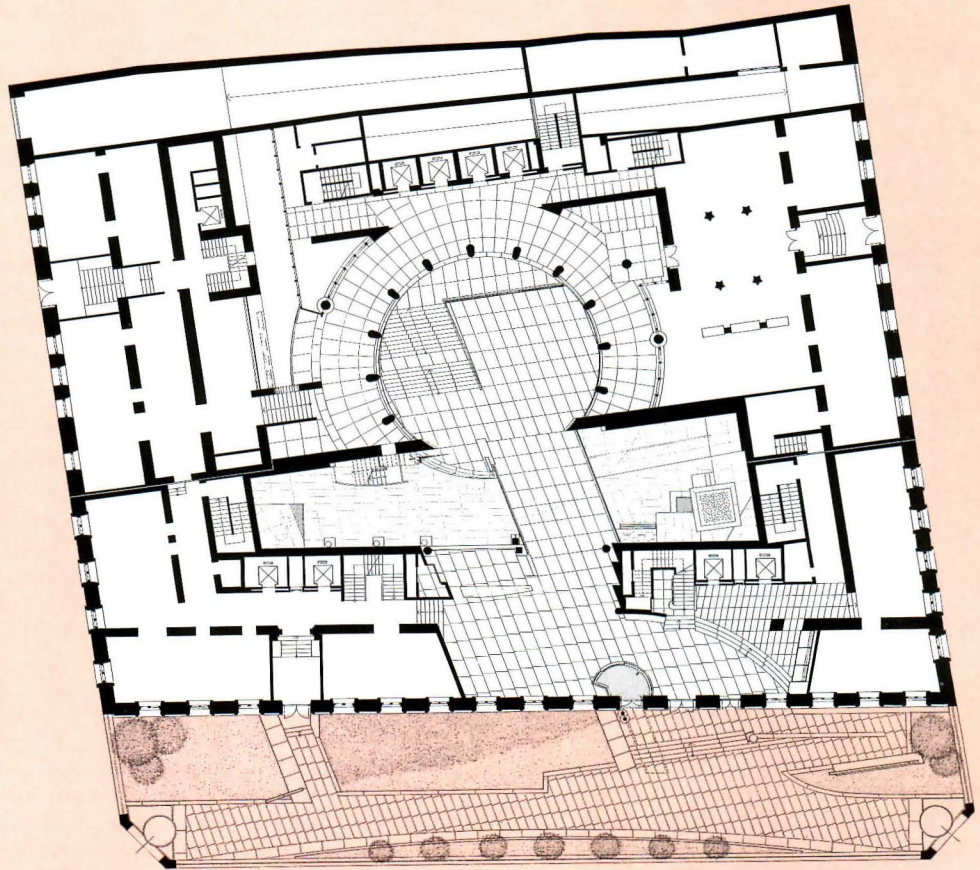


The Enchanted Circle

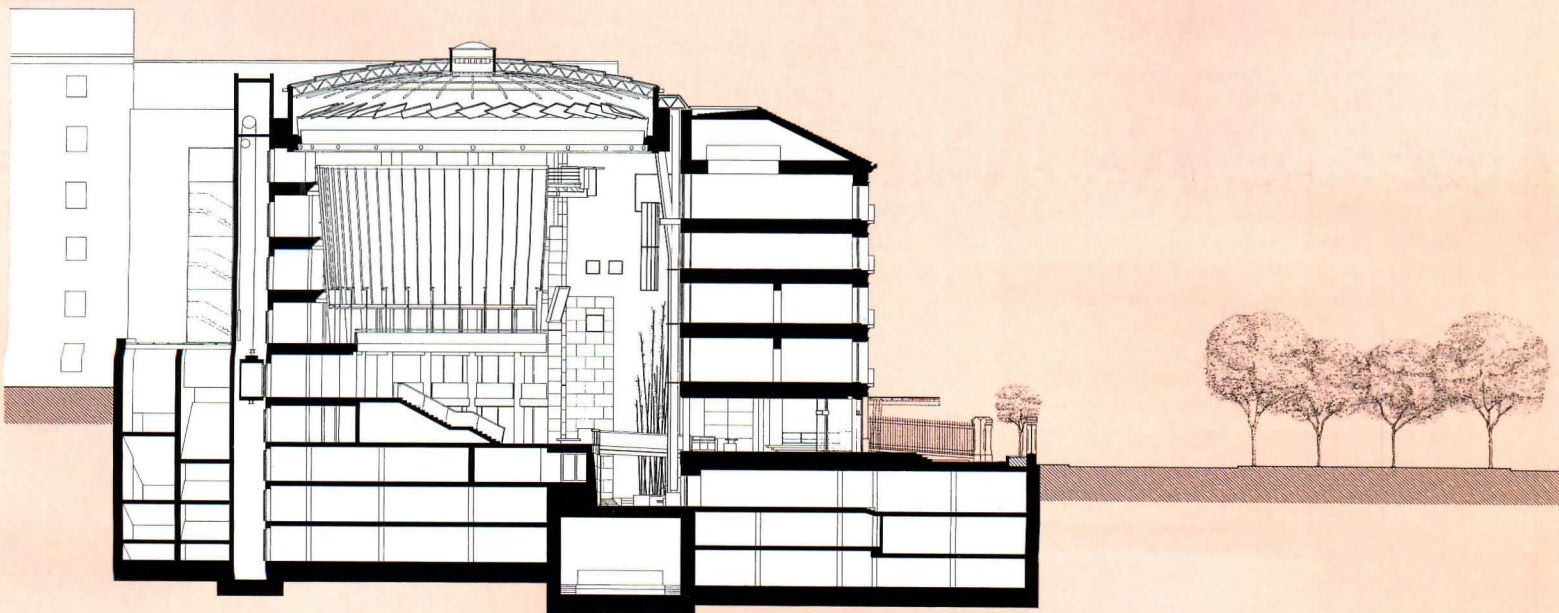


In his first work in Spain, Hans Hollein creates a discrete new identity for three old apartment buildings, recycled as the headquarters of Spain's largest private bank.

*Central Atrium,
Executive Offices
Bank of Santander
Madrid, Spain
Hans Hollein, Architect*



PASEO DE LA CASTELLANA





Staff architects of the Bank of Santander built modern offices and underground parking in the shell of three 19th century Madrid buildings (plans previous page). Hans Hollein was invited to design a central atrium topped by a glass dome, which gives a modern corporate identity to the offices and joins the varying floor levels of the buildings. Above, the discrete entry and a dramatic sculptural detail of the atrium. Executive offices (facing page) overlook the space through a perforated bronze screen on one side and through a balcony window supported by a bronze hairpin column on the other.

For three and a half miles, from the solid limestone block of the 19th-century Bank of Spain to the unfinished pair of leaning towers by John Burgee Architects for the bankrupt Kuwait Investment Office, the principal banks and corporations of Spain line La Castellana, a wide boulevard that is Madrid's central axis. Modern office buildings mix with a handful of *palacetes* surviving from the last century (and more than one of these the ruin of the family that built it), a few French Empire buildings crowned by bronze sculptural groups, modern five-star hotels, government ministries, embassies, even a soccer stadium. Along this parade of privilege and folly, Rafael Moneo's 1977 Bankinter set an important precedent: instead of demolishing the old mansion on the site, the new bank stands modestly behind it in the former gardens. And now Bankinter's parent institution, the Bank of Santander, has carried bankerly discretion and good taste a step further in its new headquarters directly across the boulevard.

The privately-held bank, which recently became Spain's largest, is virtually invisible from the street, shielded behind the protecting facades of three typical Madrid apartment buildings dating from 1875, their severe uniform rows of balconied windows set back slightly from the sidewalk behind an iron fence and shallow carriage court. Inside, the old buildings have been completely gutted, and modern offices have been organized around a spectacular central atrium designed by Austrian architect Hans Hollein in the former patios.

Hollein made a complex miniature world out of the simple problem of the covered courtyard, rendered with fine craftsmanship in his distinctive palette of choice materials: bronze and stainless steel, Spanish limestone, a soft grainless marble and pale salmon-colored stucco, with accents of blue Labrador granite and a rare green quartzite. It is all bathed in gentle daylight.

The inverted-cone shape of the atrium, topped by a shallow glass dome, echoes Hollein's project for the Guggenheim Museum in Salzburg and his recent Haus Haas commercial center in Vienna. But the circular volume is interrupted by a vertical slot of space near the entry. This slot rises from the basement level to the ceiling, where preservation codes called for saving an old patio wall. From the obscurity of the entry lobby, a gray marble bridge draws visitors across this void and penetrates a pair of craggy limestone walls to enter the glowing light of the rotunda.

The ceiling, supported by a hairpin column, is held away from the old patio wall at this point, sending a second cascade of daylight into a sunken corner, where a small fountain and a grove of ornamental bamboo underline the subtle evocation of a mountain landscape. Once inside the rotunda, a marble stair rises to the elevators, in that generous, needless gesture common to many Madrid buildings (in this case, the elevators are also accessible from the ground floor). The executive offices above overlook the space behind a conical screen of perforated bronze, like a Miesian curtain wall-like screen.

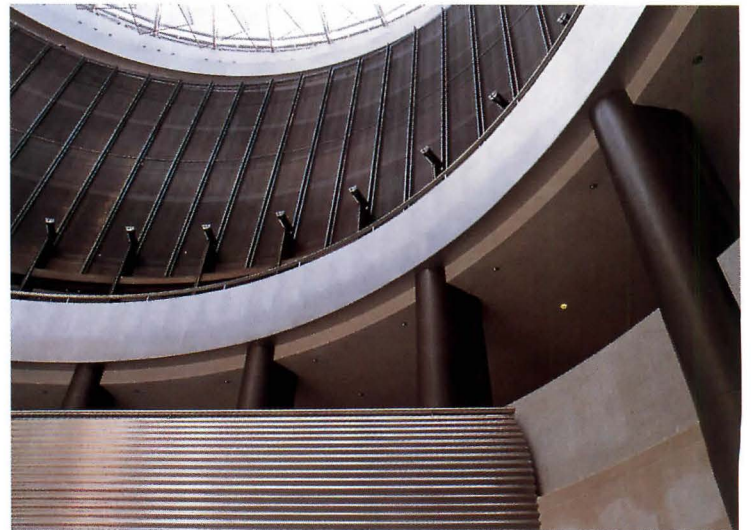
The subtle vertical pull of the entry bridge and marble stair to the cantilevered balcony sets the virtual ground plane at the third floor. This raises the center of gravity of the space, centering the atrium on a floating plane between the descending light and one's upward gaze. The atrium is a dynamic and reflexive shape, at once a stage set and arena, depending on one's position in it. As Hollein explains, "I think you should have complexity in simple things, and simplicity in complex things. And if you can overlay both, I think that is the ideal."
David Cohn





The atrium is finished in Hollein's distinctive palette of fine materials and details. From the dark lobby (right) with its custom reception desk, visitors cross a gray-marble bridge to the rotunda. The bridge's open metal balustrade (opposite top left) is anchored by a block of spluga, a green quartzite from a quarry in the Italian Alps specially opened for Hollein's 1991 Frankfurt Museum of Modern Art; the salmon walls are pigmented, cold-applied stucco. The Miesian, perforated-bronze screen (top right) is supported by a bronze colonnade at the third floor (with uprights custom designed by Hollein), while oval columns finished in dark stainless steel support the third floor. Below, the stone of the main stair is clauzetto, a Italian beige marble; the lower walls are bateig, a Spanish limestone. The handrail and metal balustrade are stainless steel.





Credits

*Central Atrium
Executive Offices, Bank of Santander
Madrid, Spain*

Client's Representatives: *Javier de Lahidalga, Gonzalo Echnique, building department; Alfonso Millanes, resident architect*

Architect: *Hans Hollein Architect—Hans Hollein, design principal; Ulf Kotz, project architect; Klaus Matauscheck, Sina Banlahmad, Richard Goodstein, Russel Katz, Kevin Mulcahy, Jimena Robles, project team*

Associated architects: *Manuel Ayllon Campillo, Jaime Ferrer Sarroca*

Lighting Consultant: *Lichtdesign Ingenieurs*

General Contractor: *Formento de Construcciones y Contratos S.A.*

Virtually Brave New World

As corporations restructure the white-collar workplace—dealing with problems ranging from bloated costs, and too-slow new-product introductions to globalization and changing demographics—they increasingly see the physical place of work as both problem and solution. Today companies seek to work more closely with clients, to use team-based problem solving, and to dissolve hierarchical structures that have made them costly and slow to respond. If, in the process, organizations can reduce space costs and operations budgets, they'll take advantage of that, too. These changes have wide implications not just for the design professions but also for commercial real estate.

As businesses rethink the way they work, the fixed workstation may go the way of the dinosaur. Some companies already accommodate more workers in less space using the "non-territorial" office and telecommuting. At others, encouraging team productivity is resulting in work spaces that look like home, with easy chairs and sofas. Even amendments to the Clean Air Act of 1990 are spurring a new look at the office: to reduce auto emissions, companies employing over 100 people must file (by November 15) employee trip-reduction plans, which can include more work-at-home jobs or satellite "telework" centers. It's tempting to see these techniques with their futuristic-sounding buzz words as the gimmick of the month. Don't. In RECORD's Building Types Study 697, The New Workplace [June 1992], little nonconventional office space was being built. Today, as Ted Hammer, partner at New York architect Haines Lundberg Waehler says, "clients always ask about it."

We don't just work; we "office"

The non-territorial office, or Alternative Officing (AO—as HOK's Facility Consulting Group decided to call new working practices in order to avoid confusion), takes many forms. Workplace experts,

Based in Accord, New York, Karin Tetlow writes about health care and the business and behavioral sides of design.

McCaw Communications Kirkland, Washington

"Craig McCaw likes to talk about the new office worker as a nomad," explains Dave Miller, partner in the Miller/Hull Partnership, which designed new space for the Wireless Data Division. Though McCaw, a leader in cellular telephone networks, is among those propelling workplace mobility, the design "is a middle ground" between traditional offices and hoteling, says Miller. (Corporate offices in design may take the concept further.) To create a more task-oriented environment, glass-faced offices open to project areas

(adjacent to a fax/copy/coffee-bar unit) fitted out to suit users (plan opposite). "One project might be set up with big computers run by outsiders, later it may revert to a more lounge-like setup," Miller says. Right: lobby; below: the cellular system control room.



including Michael Brill of the Buffalo Organization for Social and Technological Innovation (BOSTI) have identified nearly a dozen. In "free address," workers who spend most of their time in the field use available headquarters-office facilities on a first-come-first-served basis, wheeling personal items from central storage. In "hoteling" or "just-in-time," field workers reserve space in the headquarters only as needed, and are sometimes supported by a "concierge" staff who manage computers, phones, databases, and files. "Group address" fixes a place for a task-oriented group to work, but team members use whatever space is available within the "address." These areas may be augmented by "activity settings": lounges, snack areas, and other communal spaces intended to support teamwork in a more informal way. Smaller carrel-like spaces, for staff who drop in for very short periods, are likened to airline red-carpet clubs.

Off-premises, AO embraces telecommuters (who work at home, linked via phone, fax, and modem), workers who use both home and office, and, of course, the "virtual office," where employees equipped with a portable computer, pager, cellular phone, and other digital paraphernalia work anywhere from hotel and airplane to beach and mountain top. Though hoteling and free address are chosen mostly for auditors, salespeople, and consultants who spend some 70 percent of their time in the field, a few firms now use these methods for R&D people—Shimizu in Japan is one example—who need no permanent shelf space for reference materials because sources are all on-line.

AO's challenge is not just implementing this week's officing flavor. Pioneers have found that it can't work without investigating the unique business situation of each client through collecting data, programming, and running pilot studies. CRSS in Houston is establishing benchmarks to evaluate alternative forms of work at Mobil which, motivated partly by a Clean Air mandate to reduce commuting trips, has begun breaking down departments into smaller units in scattered locations and is experimenting with work-at-home



© Michael Ian Shopenn photos this page and opposite

Here's the non-territorial office, driven by changes in technology and new ways of doing business. It brings new attitudes to real estate—and to the design process. By Karin Tetlow

jobs. Architects and designers can play a role at the earliest stages by helping clients understand the spatial implications of various work methods. (Conventional square-foot-per-person standards don't work; nor do standard stacking diagrams.) As projects on these pages show, designers help make the new working methods real by devising furniture or architectural solutions that support them. This can be hard to communicate to clients because they may not realize how the physical environment supports or thwarts work patterns, and AO office layouts do not necessarily look much different from conventional ones. Further, the management of both the space and the electronic resources is very demanding, calling for intensive collaboration among facilities managers, support personnel, and users to maintain computer, telecommunications, and data access and security at multiple sites.

Design as a strategic tool for business

"The reality is that organizations are moving extremely rapidly and designers are chasing to catch up," says Frank Duffy of DEGWA, a London architectural and consulting firm which has long researched evolving ways of working and the impact of the electronic office. "They learn that these new solutions are all about using design as a strategic tool." Duffy launched The Workplace Forum in 1991 to consolidate innovative workplace efforts. Now supported by 17 corporate subscribers including Herman Miller, Tandem, the U.K. Ministry of Defence, and academic and management gurus from the U.K. and U.S., the group meets quarterly on both sides of the Atlantic. DEGWA has just published *The Responsible Workplace* (Oxford: Butterworth Heinemann, 1993), which includes papers and European case studies.

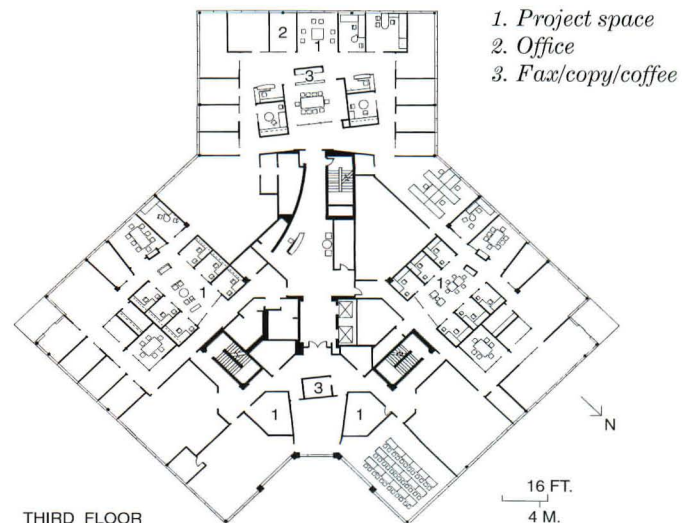
Large American firms like HOK, Gensler, and CRSS have caught the ear of corporate America by marketing themselves as business strategists as well as designers [RECORD, March 1994, pages 28-31]. HOK is assisting AT&T's new office of Alternative Officing Strategies in its expansion of AO—already some 25 percent of workers are involved.

Meanwhile, corporations such as IBM, Steelcase, and Xerox are investing millions of dollars in university-based research consortiums at such institutions as MIT, Carnegie Mellon, and Cornell. Going hands-on, The Center for Building Performance and Diagnostics at Carnegie Mellon, led by Volker Hartkopf, has started construction on a \$2-million Intelligent Workplace [RECORD, June 1992, page 122] to see how advanced building systems and different ways of using space impact productivity. Perhaps the best known program in the design community is the Cornell University International Workplace Studies Program headed by Frank Becker. Sponsor of considerable research since the 1980s, the program is now engaged in Workscape 21, The Ecology of New Ways of Working, whose volumes titled *New Working Practices* (which establishes benchmarks), *Implementing New Ways of Practice* (due in 1995) and *Telework Centers* (an evaluation of North American and Japanese experiences), are available through the program (Ithaca, NY 14850).

IBM, and "big six" accounting firms like Arthur Andersen and Ernst & Young were the first to adopt AO in the late 1980s and early 1990s, and have since rapidly extended the practice in the U.S. and England. In 1990 Andersen applied Just-in-Time to 13 offices accommodating 70 consultants. Savings amounted to \$505,000, while employees reported that the quality and amount of work done was the same or better than before. Becker has followed developments at IBM, which has transformed some offices into "productivity centers." Though he couldn't confirm in-house claims of dramatic productivity gains, he did find a great deal of satisfaction with the new ways of working.

Lessons from alternative-office prototypes

When Sverdrup Architecture of St. Louis developed a hoteling concept for Ernst & Young, consolidating 21 floors into seven in Chicago's Sears Tower in 1992, the firm worked with Michael Brill's BOSTI to ensure the space would be user-friendly (following pages). With a current ratio of one space to six workers in Chicago, Ernst &



Three alternative-office pitfalls: imposing it on employees without their involvement, copying a successful scheme without adapting it to company culture, and implementing it without a test.

Young is fast adopting hoteling elsewhere in the U.S. Having worked out management bugs, the company now desires space that esthetically reflects its new ways of working. While design consultants for major corporate clients focus on achieving AO on a national and global scale, those in the creative sector are coming up with ingenious interpretations. Abandoning rectilinear rows of cubicles for more malleable geometry, they are finding new solutions for “cave and commons,” the idea conceived in the 1960s by MIT artificial-intelligence researcher Marvin Minsky for workers who need privacy to concentrate and open space for informal chat. At the offices of Work/Family Directions, Boston-based consultants on human resources whose often emotional contact with clients is by phone, Holey Associates of San Francisco devised a delightful commons to serve as a physical sanctuary. It is a boardwalk edged with 14-foot trees leading to a light-filled “beach” with umbrellas. A meeting room is equipped with an old-fashioned swing set.

In Atlanta, the CRSS/Atlanta Advance Planning office, which does strategic consulting and planning, has created a crisp, colorful, economical (\$23-per-square-foot), space for a staff of 10, half of whom are out of the office at any given time. The design divides the 2,500 square feet into task-based areas rather than individual workstations. Teams produce their own documents in a desktop-publishing area. Individuals can push together desks and flat files into team work areas; library-like carrels, offering greater privacy, are used for individual work. There is a library, a copy/fax area and a conference room as well as a private office any team member can use when needed. Personal files and possessions are kept in a roll-away device called a “puppy.” Since no one has a fixed station, staff plug their personal phone lines into jacks on a pedestal, keyed by a map to the person’s current location.

With team-based work now so important, there is much research on what makes teams work. Jean Wineman and research associate Mar-

garet Serrato of the College of Architecture, Georgia Institute of Technology, suggest that among the most difficult issues is not the dynamic within the team but the interaction of teams with colleagues and other teams. Flad & Associates, a Madison, Wisconsin-based design firm that has long studied evolving ways of working, has told pharmaceutical companies that giving the team authority to create its own space can be key to creating the kind of ethos needed to tackle difficult tasks. (Warning to space planners: This can get messy.)

Making spaces teams can “adopt”

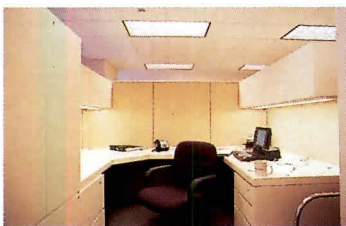
Apple Computer involved 90 percent of the staff in design decisions for its six-building, 856,000-square-foot R&D campus in Cupertino, California. Engineers told the company that openness was important for the exchange of ideas, but they stayed home to concentrate for lack of privacy. Apple bucked its own history of open-plan offices, choosing 85 percent private offices grouped around communal space.

Deciding against signature architecture, the company built developer-type buildings that could be easily reconfigured or sold. Completed last year, HOK delivered base buildings with a unified look, while four other firms, Gensler and Associates, STUDIOS Architecture, Holey Associates, and Backen Arrigoni & Ross, created distinctive interiors. John Holey of Holey Associates warmly recalls working with the other firms to develop a menu of furniture, adjustable work surfaces, and fabrics for all the buildings from which staff could make their own selections. While all the architects devised flexible spaces named User Defined Areas (UDAs), most simply chopped rectilinear spaces out of the usual grid of private offices. Holey Associates tied offices and UDAs with two linked partial circles, leaving residual space that workers temporarily take over for projects or meetings. (Apple people were at first skeptical about this; the idea has proven to work well.) STUDIOS accomplished the same thing by skewing inner offices against the grid of window offices. Apple plans an in-house study of the different layouts.

Ernst & Young, Chicago

Noting that field workers sharing headquarters space had had many complaints in the past, Michael Brill recommended a secure “home base”—a dedicated location for people’s belongings (right). He decreed that hotelers would not have second-class space when compared to full-time-office workers (for example, acoustical privacy for phone calls and confidential meetings). With the exception of areas devoted to part-time users’ personal items, the Sverdrup-designed offices are laid out in a conventional way (far right). Conducting a post-occupancy

evaluation a year later, Brill found an increase in satisfaction with accommodations but no increase or decrease in job satisfaction. “This is what you want to hear,” says Brill, considering that the company considerably reduced space costs. (One complaint—workers “hogging” space—was readily resolved.)



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Potholes on the road to the new workplace

To succeed, managers and their designers must recognize how such profound changes affect staff. What should replace, for example, the status conferred by the corner office? The non-territorial workplace can easily be much more alienating than even a dreary, if conventional setting. Likewise, the mobility innate to new business structures may offer more rewarding social interaction or deprive workers of valued informal encounters. Some staff prefer to work at home; for others, home equals isolation or disconnection. At one publishing company pondering AO, an editor commented, "If I'm not here, the company doesn't think I exist. The 'virtual office' equals the virtual job."

Likewise, AO as a cost-cutting strategy may backfire. Though office space can be dramatically reduced under some scenarios, square-foot costs and square footage devoted to each worker may be far higher. Hoteling and similar schemes also require more intensive management of space usage, computers, data, phone lines, and files. In a survey of 56 organizations, HOK found startup problems that included technology integration and, as expected, attachment to the familiar—especially for those high-level executives used to traditional symbols of success. (Most respondents considered AO a winner, however.) There are reports of firms failing miserably because they neglected to institute early and ongoing feedback from workers. Becker points out three dangers: imposing AO on employees without their involvement, copying a successful AO scheme without adapting it to the company's culture, and implementing AO wholesale without a test.

A new conception of real estate

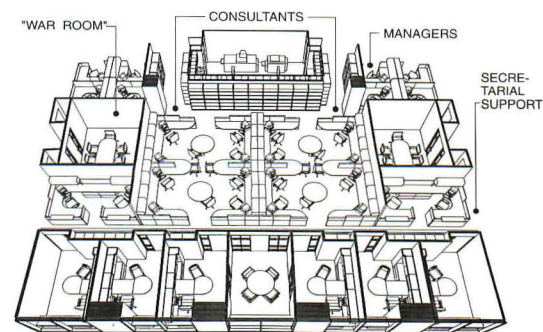
The presumption that office space is a fixed expense is changing, which may dramatically alter the way real estate is built and sold. "This is a paradigm shift driven by the changing structure in corporations and different patterns of working," explains Michael Joroff,

professor at MIT's School of Architecture and Planning. He is also project director of Strategic Management of the Fifth Resource: Corporate Real Estate, phase one of Corporate Real Estate 2000 sponsored by the Industrial Development Research Foundation. "The workplace is shaped by what the business is about. The last thing you want to do is invest in real estate if your people are using airline clubs and rented meeting spaces." Rather than aggregate departments in a single location, experts say, electronic links permit more locations closer to customers or vendors. Joroff also found that alternative officing had best be driven by business concerns—improving productivity, attracting top staff, for example, or enhancing communication and teamwork—rather than purely as a cost-cutting strategy.

Some believe AO will not survive a strong economic upturn. Jay Chiat begs to differ. He's committed his advertising agency, Chiat/Day to the cutting edge of new office techniques, reworking its Frank Gehry-designed headquarters in Santa Monica, California, and molding new space in New York City to make both "resources that allow people to work better and have more power to do their jobs," as Chiat puts it. "Since we were going to reorganize into teams and workgroups, we didn't need offices." In both projects (following pages) people walk around; they talk (often they talk on the phone and walk); they meet over bagels and laptop computers in the "clubhouse"—a café-like space favored by the agency's largely 20- and 30-something staff. What people don't do is labor alone in cubicles or private offices. Having "checked out" their computers and their portable phones, employees go to project rooms (spaces dedicated to campaigns for clients), single-person carrels (where concentrated individual work can be done on desktop computers), the clubhouse, or quiet nooks (for solitude). Personal items (including such archaic objects as paper Rolodexes) are stored in lockers. On meeting Chiat for the first time, architect Gaetano Pesce recalls, "This man is questioning a typology. As architects we should be putting things in question. He's like an architect, asking what the office of tomorrow should be." ■

Ernst & Young, New York City

Mekus Johnson of Chicago designed a lively and less formal prototypical office in New York City to accommodate 679 consultants and staff in 145 office/workstations. (Staff "re-engineers corporate America," says partner Cary Johnson.) Cove lighting and an undulating ceiling enliven a central team workspace (right). A small meeting room can be opened to two adjacent private offices by wide, sliding, wood-framed glass doors (drawing). Mekus Johnson is applying the lessons to 29 more fit-outs nationwide.



Chiat/Day Advertising New York City

Energy is palpable at the agency's barely finished lower-Manhattan offices. It's not just Gaetano Pesce's splashes of color and whimsical furnishings—they're never overwhelming. It's the hum of a small city, where people meet in halls or in the cafe-like clubhouse or solitarily contemplate the view from floppy furniture. What looks at casual glance like a rock-video set, turns out, on close examination, to reveal how clearly Pesce understood what the client was after. The indeterminate shapes and bright colors are amusing rather than overassertive; there is a variety of spatial experiences and surprising perspectives on the thrilling city and harbor views. The whole office seems to invite worker cooperation. Pesce arranged the necessary enclosed spaces to create people-oriented piazzas and slots to bring views and natural light well into the inhospitably deep floor plate of the building—a generic 1980s developer special. Mesh-clad carrels hold desktop computers for concentrated individual work (top right). Plentiful floor and wall outlets connect laptop computers to a central server, as in the clubhouse (middle right). Bored with the view? Move somewhere else; people find you by phone. Crisis brewing? You can check out a small project room for a few hours or a few days. Does it really work? Too early to tell. Now workers move in, out, or through the office as needs dictate, blowing conventional notions of space utilization sky high. *J. S. R.*

Credits

*Office for Chiat/Day Advertising
New York City*

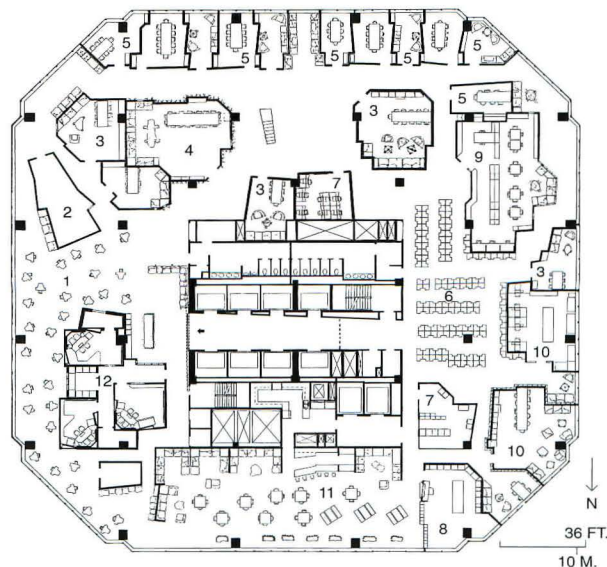
Architect: *Pesce Ltd.—Gaetano Pesce, principal/design; Kent Hikida, project architect; Olafur Thordarson, David Bers, Patrick Rannou, project team; Joseph Sabel, Michael Whitney, Jason Tillman, Michael Schinelli, custom fabrications*

Engineers: *Jaros Baum & Bolles (mechanical, electrical, plumbing); Thornton Thomasetti (structural); Walters-Stork Design Group (acoustics)*

Contractor: *Client acted as general contractor*

Architect Pesce has coded spaces with "bricks" molded from TV remote controls (for a video presentation room, background top). Doorway profiles evoke client products (soda bottles, shirts). Pesce's office designed and partially fabricated the colored-resin tables, chairs, and doors (this page and opposite).

© Donatella Brun photos



1. One-person carrels
2. Video conference
3. Large project room
4. Client conference
5. Small project room
6. Lockers
7. Computer room
8. Store
9. Library
10. Art studio
11. Clubhouse
12. A/V



Chiat/Day Advertising Santa Monica, California

"You can't make people work harder and smarter," says Jay Chiat. "You can give them an environment that helps them to to work harder and smarter." Chiat/Day has been practicing that philosophy since 1976, when the firm hired Gene Summers to "take down the walls and doors," as Chiat puts it. The process has accelerated in recent years. The Santa Monica headquarters, designed by Frank O. Gehry in collaboration with the artists Claes Oldenburg and Coosje van Bruggen, opened to much fanfare only in late 1991. It's sculptural street presence enclosed a grid of informal, plywood-clad open workstations little different from those many architects use. Still, says architect Susan Lanier, Chiat "wanted to bust out of prescribed notions, the complacency in the way they were working. He was really convinced the system they had was archaic." Lanier is partner in Lubowicki/Lanier, which has reworked the Gehry building's interior. Chiat's new metaphor for both Santa Monica and New York was of a college campus, where students move from classroom to classroom, to library and lab. Similarly, most Chiat/Day staff aren't tied to desks. After checking out computers and phones at the "company store," they go where the resources they need are, whether that be a meeting room (fitted up—temporarily of course—with computer, video equipment, tack space, and white board) or a quiet corner equipped only with a seat.

Chiat sees the Santa Monica office as perhaps a little more conservative than the New York solution: "Lubowicki and Lanier had the additional problem of adding to Frank's [Gehry] environment without destroying its integrity." Much more difficult, Lanier feels, was the issue of flexibility: "To allow people to move to a zone to perform a task doesn't mean everything has to be movable. If that was the tack, you'd end up with rather mediocre space architecturally and otherwise. Things get moved around and left, and it's nobody's space. There can be some smaller movable objects, but the spatial character needs to be maintained."

Lanier felt floating workers needed some kind of mooring. She likens the company store to a corner newsstand: "Since people were losing their personal space, the store and a concierge space on the second floor are like neighborhood landmarks, where you know the people working there. It helps provide that comfort zone of people and familiarity."

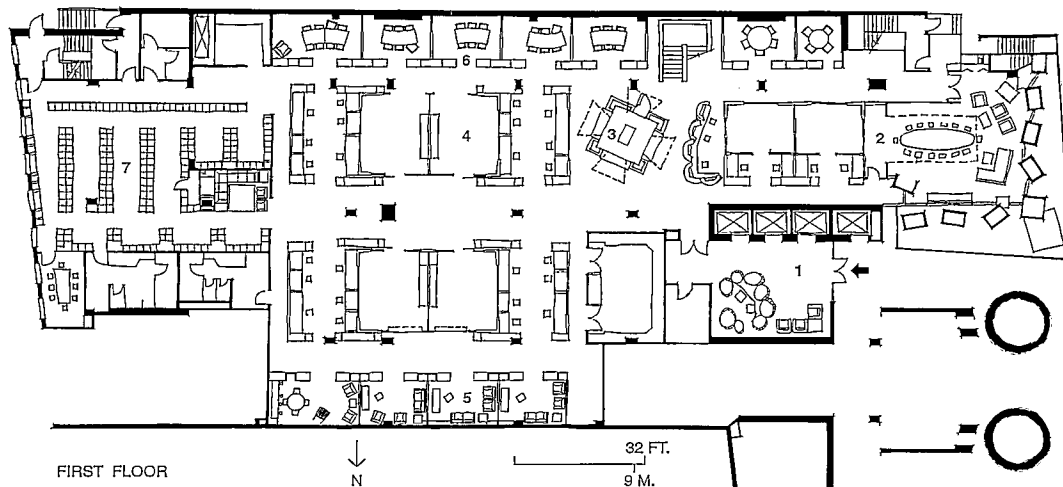
J. S. R.

© Tom Bonner photos



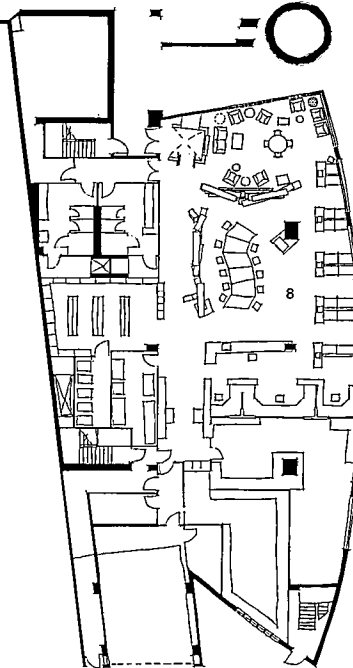
The campus metaphor is realized in the student-union-like clubhouse (opposite) for socializing and working, a library, project rooms (dedicated to current campaigns and clients), a locker room (above), and a "store," where workers check out computers and phones. Former workstations (top) have been reconfigured as "living rooms."





Lubowicki/Lanier loosened up divisions between client meeting rooms on the west side of the building and the rest of the space (one former meeting room, opposite top right). The firm set project rooms amidst the workspace (plan above). Projects are now more visible and accessible, a strategy that initially met resistance. Not all areas are open. There is a private client conference room. Art directors and certain other "creatives" also wanted conventional workstations for their large-screen computers. Right: plan of the "clubhouse." Non-territorial spaces include a pinwheel of workspaces usually commandeered by executive assistants (opposite top left) and the library (opposite bottom).

1. Lobby
2. Client conference
3. Store
4. Project room
5. "Living" room
6. Meeting room
7. Locker room
8. Library



Credits

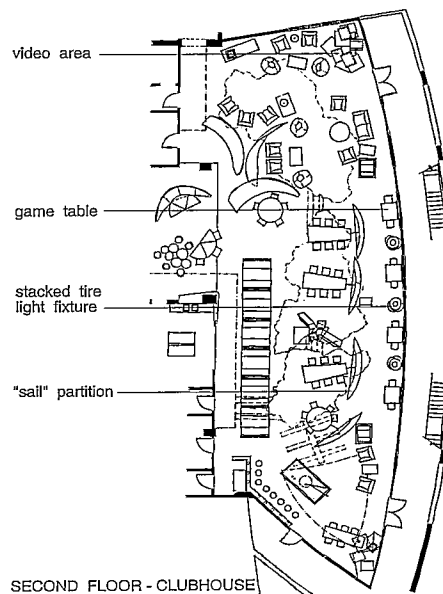
Office for Chiat/Day Advertising
Santa Monica, California

Design Architect: Lubowicki/Lanier—Susan Lanier, Paul Lubowicki, partners-in-charge; Julie Cox, project manager; Cameron Beasley, Kevin Burke, Martha dePlazoala, Joseph Holsen, Eric Rosen, Leslie Shapiro, David Spinelli, project team

Executive Architect: Langdon/Wilson—Asad M. Khan, partner-in-charge; Richard Sholl, project architect; Ralph Delgado, Larik Ararat, project team

Engineers: Levine/Seegel Associates (electrical, mechanical) Wong, Hobach & Lau (structural)

Construction Manager:
Group Nexrus





Old, New, and Reproductions

Photography Gallery
Mexico City, Mexico
Isaac Broid, Architect
Abraham Zabudovzky, Advisor

Working within a complex of 18th-century buildings on the fringes of Mexico City's central historic district, architect Isaac Broid accomplished a design feat that Europeans have long practiced with success, but which has often foundered in the U.S. He inserted thoroughly modern interior elements to accommodate totally new functions with a minimum of disturbance to the existing building's antique character and fabric. Success of this technique in other countries is aided, of course, by the heavy masonry construction of many historic buildings, which gives them the visual strength to hold their own against newer intrusions. It is also aided by their reliance on manual construction techniques, which eliminate the need to partially demolish an existing building to get heavy equipment inside before remodeling can even begin.

La Ciudadela, as the complex is known, was built as a tobacco factory. It became soldiers' quarters during the Mexican Revolution. Later, it was used as warehouses. In 1985, the government remodeled most of the buildings into one of the largest public libraries in the country. Omitted were the spaces shown here that Broid and renovation advisor Abraham Zabudovzky were to turn into the Centro de la Imagen, a gallery for the display of photography and other visual arts accompanied by facilities for lectures and archives. Perhaps it was the presence of long narrow compartments divided by heavy structural walls (see plan, following pages), that although suitable for funneling air to cure tobacco, discouraged the library planners from adapting this part of the building to their purposes.

It is this unusual configuration of rooms with their extensive vertical surfaces that Broid has cleverly adapted to providing maximum opportunity for displays. In the process, he has added even more walls that break up the existing spaces' regimental rhythm without fighting their dominating presence. Indeed, the true secret to the visual success of Broid's design is that all new construction appears to have been dropped into the older framework. New walls, of both exposed poured concrete and conventional interior construction painted in bright colors, stop short of original ones, which still retain their 18th-century stucco finish. Supports for the new walls are steel beams stretched between existing foundations. There is a steel-structure mezzanine that also appears disengaged from its venerable surroundings.

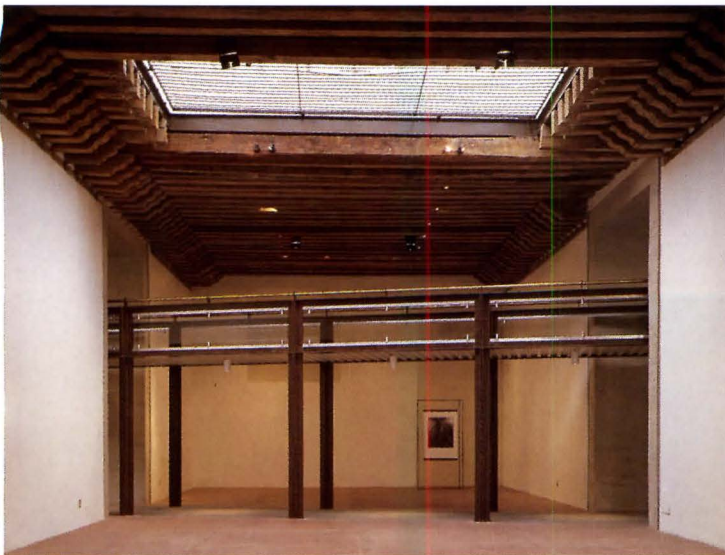
A raised corridor on independent columns slices diagonally through old and new walls alike to emphasize its recent origins. To accommodate it, Broid had to cut new openings through the structural cross walls, but he has endowed these portals with classic proportions that are entirely appropriate to the older fabric's character. The corridors give access to exhibition spaces on balconies that appear to float. Despite the portals' bow to their surroundings, there is no doubt about new materials and old. "They do not touch," says Broid in only a slight exaggeration, "thereby juxtaposing past and present. This dialog," he adds, "is what makes history alive." *Charles K. Hoyt*

© Luis Gordoa photos



The entrance is through a courtyard (above), where the architect has added a new stone basin to expand an existing fountain and a new porch to accommodate a change in levels.





Unpolished-stone paving accentuates a double-deck diagonal circulation path across the polished-concrete floor. Original features of the space include exposed heavy timber beams with ornamental carved ends and skylights, which are covered with cloth to soften the light on displays and shield them from the sun's ultraviolet effects.

Credits

*Photography Gallery
Mexico City, Mexico*

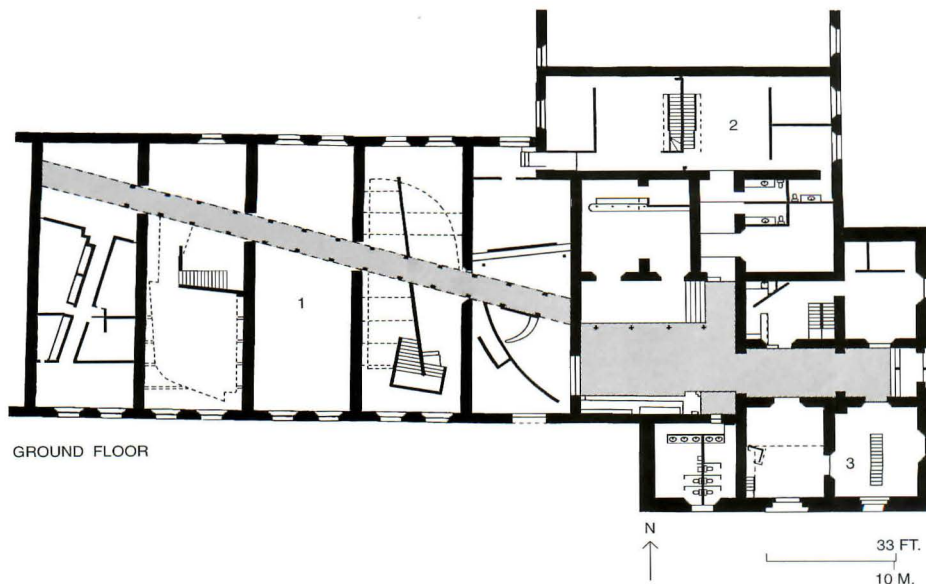
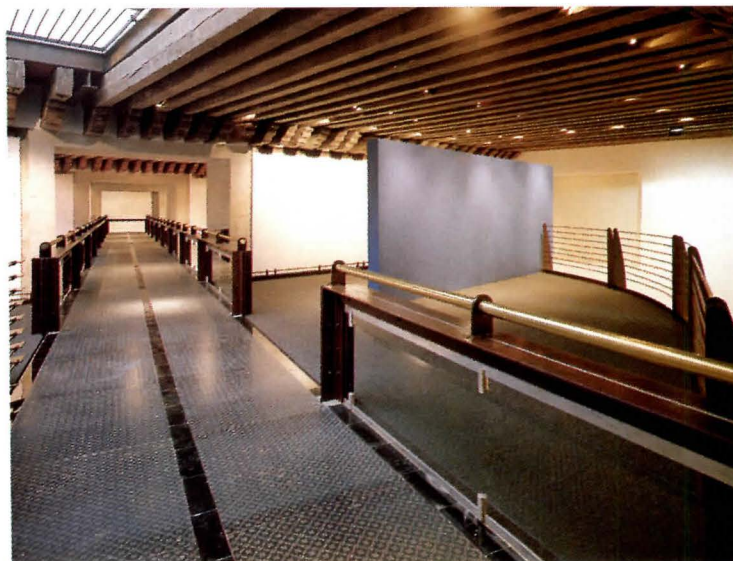
Owner: Consejo Nacional Para la Cultura

Coordinator: Pablo Ortiz
Monasterio

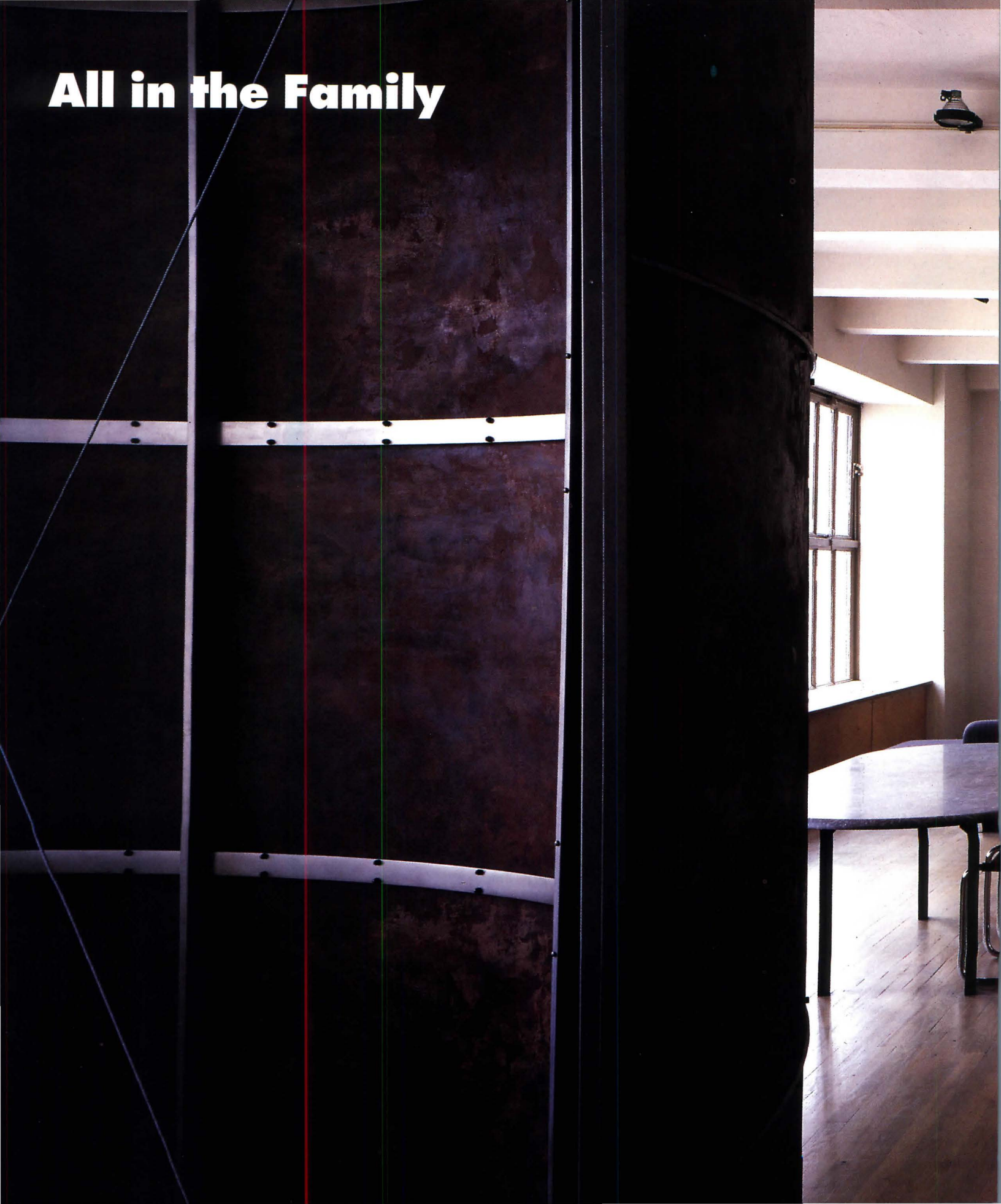
Architects: Isaac Broid with Abraham Zabudovsky—Alfredo Hernandez, Benjamin Campos, Guadalupe Yoguez, project team

Engineer: Jose Creixell
(structural)

General Contractor: Codisa



All in the Family



*Flatiron Residence
New York City
Roger Hirsch, Architect
and Drew Souza*





New York City's Flatiron district has undergone a renaissance in recent years. Though a new assortment of high-style boutiques and eateries now occupies the area's avenues and cross-streets, equally fashionable changes have been occurring above ground. A case in point is the recently renovated apartment of Deborah and Vincenzo Conigliaro, located on the 11th floor of a former manufacturing building, a block from the district's turn-of-the-century namesake structure by Daniel Burnham.

After purchasing the apartment next door to their existing residence, the Conigliaros hired Deborah's son, Roger Hirsch, to combine old and new into a 2,400-square-foot seamless whole. Like many young architects who hope a parental commission will launch their careers, Hirsch, a recent Columbia University graduate, made the project his professional debut and the beginning of a promising collaboration with graphic and product designer Drew Souza.

The existing apartment was designed by Tod Williams and Billie Tsien in 1981. Their efficient plan of compact yet varied spaces smoothly combines work and leisure activities within the confines of Manhattan apartment life. The centerpiece of their scheme is a jewel-box-like bedroom of painted wood and sandblasted glass panels, which open toward the living room to borrow light, air, and views. In doubling the size of their apartment, the Conigliaros wanted to retain Williams and Tsien's design. "We thought of moving it," says Deborah Conigliaro of the bedroom as if it were a completely free-standing object, "but we never considered getting rid of it." Though Hirsch and Souza repainted the gray wood mauve, the overall effect of their design is to give it more breathing room, a sign of respect and confidence. Explains Deborah Conigliaro of her and her husband's decision to hire Hirsch rather than re-hire Williams and Tsien, whose practice has since grown to include much larger commissions, "it seemed continuous, the next logical step, and perfectly natural to all of us."

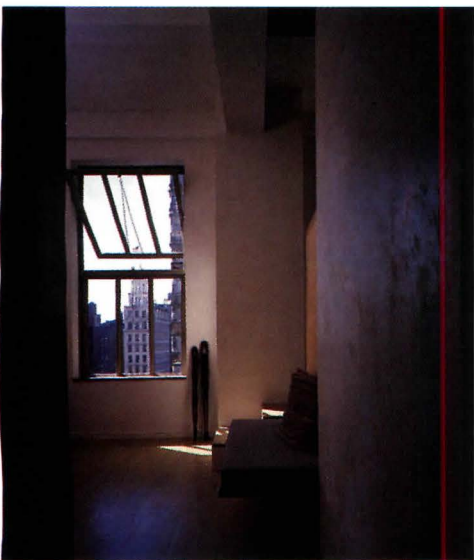
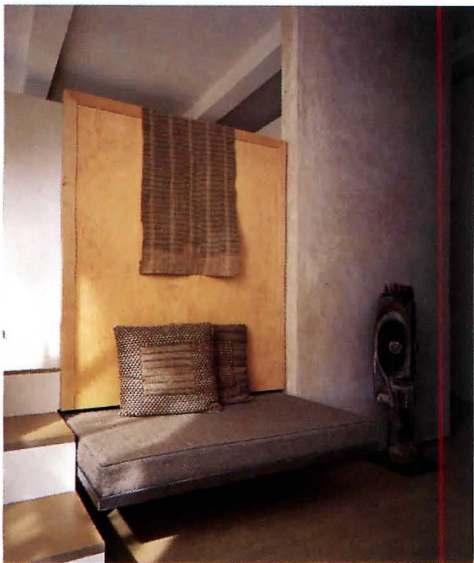
The sense of continuity is, in fact, palpable. Not only did Hirsch and Souza create an accepting envelope for the "box," but they embellished some themes inherent in Williams and Tsien's work: a blurring of the line between inside and outside; old and new; enclosure and openness; and an interest in the tactile quality of materials, expressed through the use of rugged slate counters, smooth plaster walls, and oak cabinetry.

The designers combined the two back-to-back windowless kitchens into one wide corridor, opening it to north light and stunning skyline views. Although the overall impression is of an open loft space, a series of carefully syncopated "rooms" set off from one another by a few steps, partial-height partitions, and a change in material provide discrete work, reading, and exercise areas without sacrificing a sense of expansive, continuous space. *Karen D. Stein*



In 1981 Tod Williams and Billie Tsien designed Deborah and Vincenzo Conigliaro's apartment in New York City's Flatiron district. Over a decade later, the Conigliaros bought the apartment next door; and Roger Hirsch and Drew Souza combined the two spaces. Hirsch and Souza retained Williams and Tsien's bedroom box of wood and

glass, repainting its mauve surfaces gray (opposite). They extended the dining room to the west and opened the kitchen to north light and views. A curved partition of force-rusted steel panels screens an office/library (top). Along the entry corridor, a tinted plaster wall is a muted backdrop for the owners' collection of African art (bottom).



The entrance to the original apartment, at the east end, is now used for access to the office of Deborah Conigliaro, a psychoanalyst. By relocating the master-bathroom door from the hallway to an expanded dressing room, Hirsch was able to reposition Williams and Tsien's interior doorway between office and living areas, thereby enlarging the office waiting room (plan below left). The floor in the former east unit is maple and in the former west unit is oak; the contractor feathered the unevenly matched boards together and they were then stripped and bleached to hide differences.

Maple panels slide on steel tracks to selectively screen dishes in the kitchen (bottom right). Maple reappears beneath purple slate counters as kitchen cabinets and as furniture in the dressing room (top right) and in Vincenzo Conigliaro's study (opposite). (The "Pompeii" red painted window frame is meant as an homage to his Italian roots.) In the sitting room/guest room, a bench slides out from under an elevated exercise platform to become a bed (left top and bottom).

Credits

*Flatiron Residence
New York City*

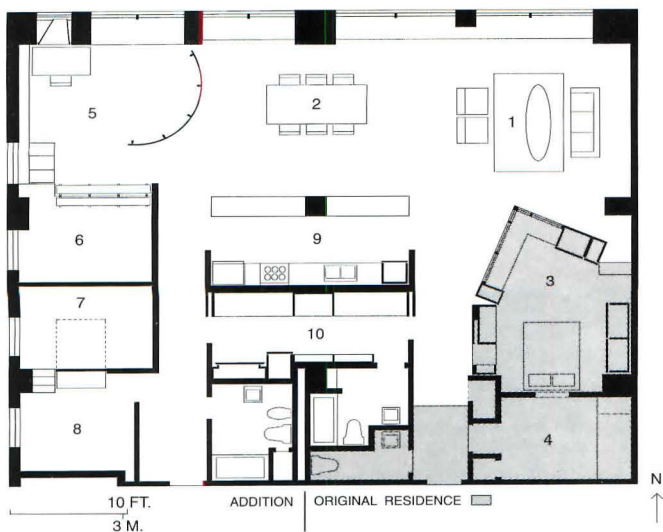
Owners: Deborah and Vincenzo Conigliaro

Architect: Roger Hirsch, Architect and Drew Souza; Andrew Wolfram, Susan Frosten, project team

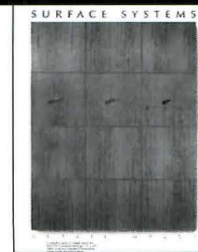
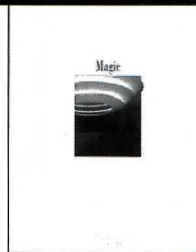
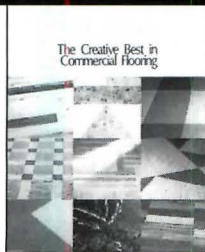
Consultants: Gloria Mills (technical); Donald Kaufman Color (custom color); Karl Kipfmüller (color); Suzan Tillotson (lighting)

General Contractor: Up-Rite Construction

1. Living room
2. Dining room
3. Bedroom
4. Office
5. Study
6. Library
7. Exercise
8. Sitting room
9. Kitchen
10. Dressing room







400. Ceiling-color selector

Fold-out sampler holds paint chips representing color-compatible finishes for Acoustone, Auratone, and Artisan ceiling panels, and Donn suspension grid. Range includes pastel and deep-tone solids; metallics and wood-grains; and multi-tone stone looks; options extend across product lines in paint, fabrics, and vinyls. USG Interiors, Inc., Chicago. *

401. Naturalistic flooring

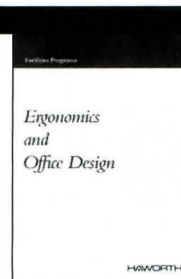
A 12-page color catalog showcases Tajima Japanese vinyl tile, made in realistic patterns replicating natural woods, fine- and coarse-veined stone, and terrazzos. Brochure introduces New Sand, a subtly textured floor design with a sandblasted appearance. ASTM and other test data listed for all products. Architectural Floor Systems, Inc., Arlington Heights, Ill.

402. Dramatic Danish lighting

Part of a fixture line said to "create the best light for a given purpose", Magic downlights offer such decorative options as concentric tiers of white-metal reflector discs or suspended rings of frosted glass. A color brochure includes installation photos, sectional diagrams, and source and dimensional data. Poulsen Lighting, Inc., Miami.

403. Versatile panel system

Pattern-selection guide illustrates an expanded range of Surface Systems panels, including new wood veneers, phosphate cements, and industrial wood-fiber designs. Explains the environmental advantages of the interior-finish line, which incorporates veneers sourced from sustained-yield forests and recycled-wood-fiber substrates. Marlite, Dover, Ohio.



404. Architectural elements

A thick distributor's catalog includes an 180-page section on hundreds of architectural trims, accessories, railings, shutters, and hardware. Items range from cornices to Anaglypta wallcoverings, all offered in stock. Architectural Products by Outwater, L.L.C., Wood Ridge, N.J.

405. Custom-design flooring

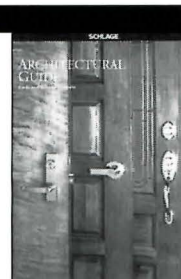
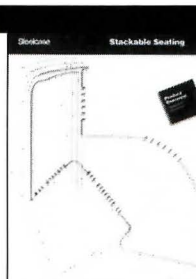
A handsome designers guide describes the intricate site-specific patterns possible with Amtico British-made inlaid vinyl. Standardized motifs, such as a detailed compass rose or a marquetry border, allow less costly customizing. All patterns shown; describes CAD-directed cutting technology. Courtaulds Flooring U.S., Louisville, Ky.

406. Sound-absorbing ceilings

Metallo is an unusual acoustic finish that uses real metal particles to obtain a metallic sheen and high-tech look at a lower cost than traditional metal ceilings. The finish is flexible enough to be used on curved or freeform panels, over absorptive or reflective cores. Folder provides samples along with acoustic data. Decoustics Ltd., Getzville, N.Y.

407. Facilities guide

A free hard-bound book, the Facilities Management Issue Guide provides a frame of reference for design professionals approaching facility projects. Sections cover productivity issues; ergonomics and office design; how to maximize an office-furniture investment; and how to relocate a business, from picking a site to designing an office. Haworth, Inc., Holland, Mich. *



408. Contract upholstery

A folder displays swatches of the 75 different upholstery fabrics, in a range of colors, patterns, and prices, available in stock for next-business-day shipment. Textiles, designed by Laura Guido Clark and Beverly Thome, have been pre-approved for use on major manufacturers' seating. 800/727-6770. Carnegie Fabrics, Rockville Centre, N.Y.

409. Metallic noise control

An architectural catalog demonstrates the appearance and sound-control characteristics of Almute sintered-aluminum wall and ceiling material. Developed in Japan, the all-metal panels are said to have a sound-absorption efficiency of almost 90 percent, to be air permeable, and to emit no airborne particles. Peer, Inc., Wheeling, Ill.

410. Versatile, stacking seating

A cheerful 12-page catalog shows four different seating lines—Max Stacker I and II, Parade, and Player—in use in gyms, classrooms, indoor and outdoor restaurants, and medical offices. Lists upholstery and shell-treatment choices, accessories, and tablet-arm and bookrack options. 800/333-9939. Steelcase, Inc., Grand Rapids, Mich. *

411. Architectural hardware

Locksets, cylinders, and lever, grip, and entrance handles for commercial, institutional, and residential use are illustrated in a 38-page catalog. All finish options are shown in color; locks are matched with appropriate installations and functions. Schlage Lock Co., San Francisco.

Continued on page 115

* Product data on CAD disk

New Products/Flooring



313. Expanded vinyl-flooring palette

A classic commercial floor product for years, Corlon sheet vinyl now offers an updated color range, including lilac, peach, and new-greens. All colors are designed to coordinate with other vinyl floor products—sheet, tile, base, and welding rods—as well as with popular interior-finish colorations. Armstrong World Industries, Inc., Lancaster, Pa.



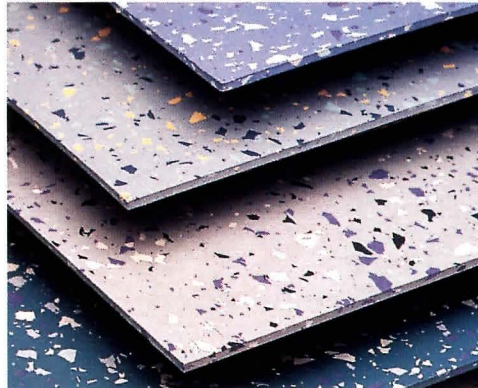
314. No-wax commercial floor

CustomSpec sheet vinyl comes in 31 colors and five patterns, a range said to offer a great deal of design flexibility in applications such as entryways, corridors, cafeterias, and elevator lobbies. Suitable for medium-traffic floors, CustomSpec has a non-porous wear-layer as well as a moisture barrier to resist stains caused by mold, mildew, and alkali bleaching. Made in six- and 12-ft lengths. Mannington Commercial, Salem, N.J.



315. Restyled VCT

Custom Cortina pattern flooring comes with a mottled, dimensional motif carried throughout the thickness of the tile. The heavy-traffic product is now available in 29 re-done colorways, including mid-tones and accents, that permit an expanded range of custom-design options. Azrock Industries, Inc., San Antonio, Texas.



316. Non-directional rubber flooring

A new non-slip rubber-floor pattern, Norament 925B Lago has a hammered-look surface texture available in a dirt-hiding, three-toned speckle motif. The non-directional pattern comes in six colorways, and can be installed with other Norament solid-color products. 800-332-6672. Freudenberg Building Systems, Inc., Lawrence, Mass.

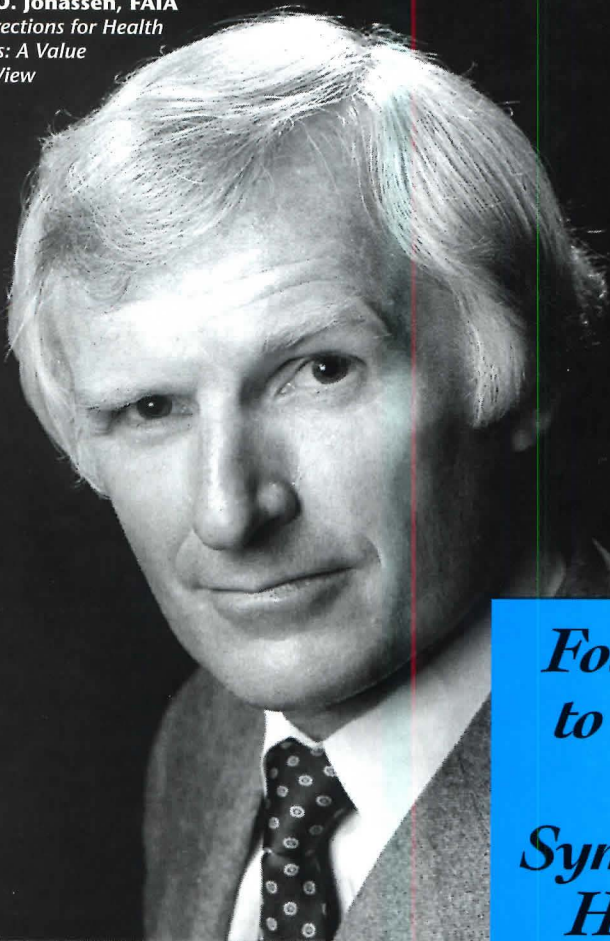
317. New commercial resilient line

Long known for residential flooring, the Congoleum Corporation acquired a competitor's tile business and is now manufacturing a full sheet and tile product line for the architectural and interior-design market. An Architect's Portfolio (pictured) samples Foundations, a through-chip inlaid vinyl sheet that meets FS LF-475-A, comes in 17 colors, and can be heat- or solvent welded. Also includes two other sheet and four tile products. Congoleum, Mercerville, N.J. ■

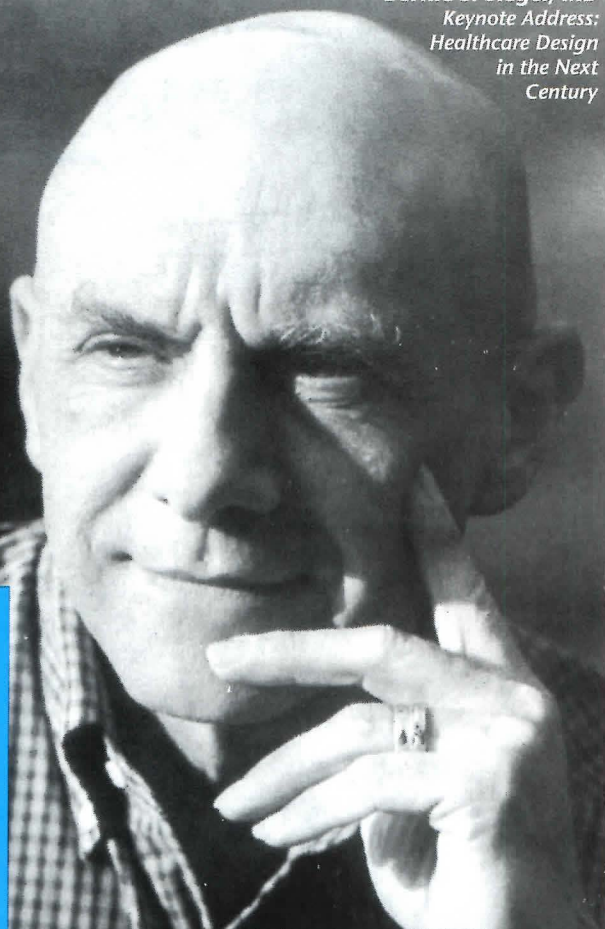
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Downlight**



James O. Jonassen, FAIA
*New Directions for Health
Facilities: A Value
Driven View*



Bernie S. Siegel, MD
*Keynote Address:
Healthcare Design
in the Next
Century*

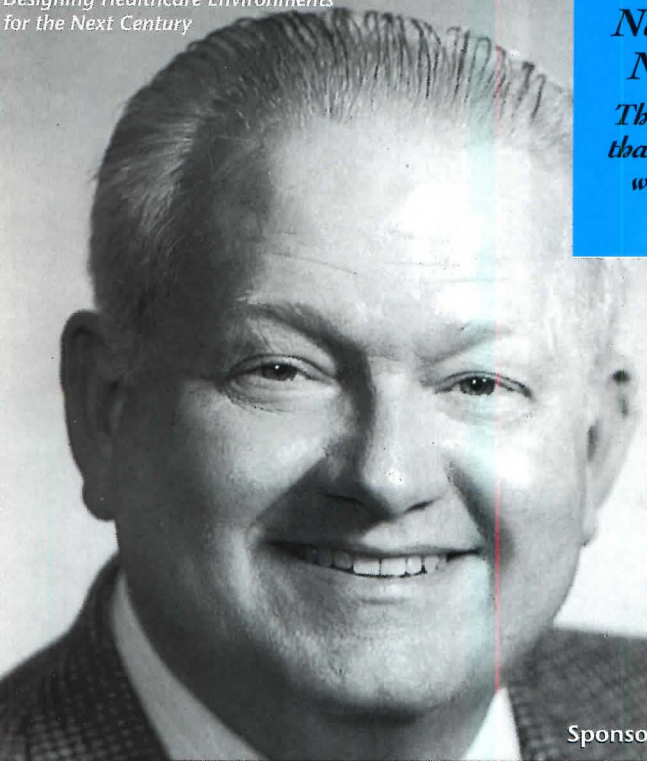


*Four reasons
to attend the
Seventh
Symposium on
Healthcare
Design.*

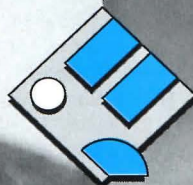
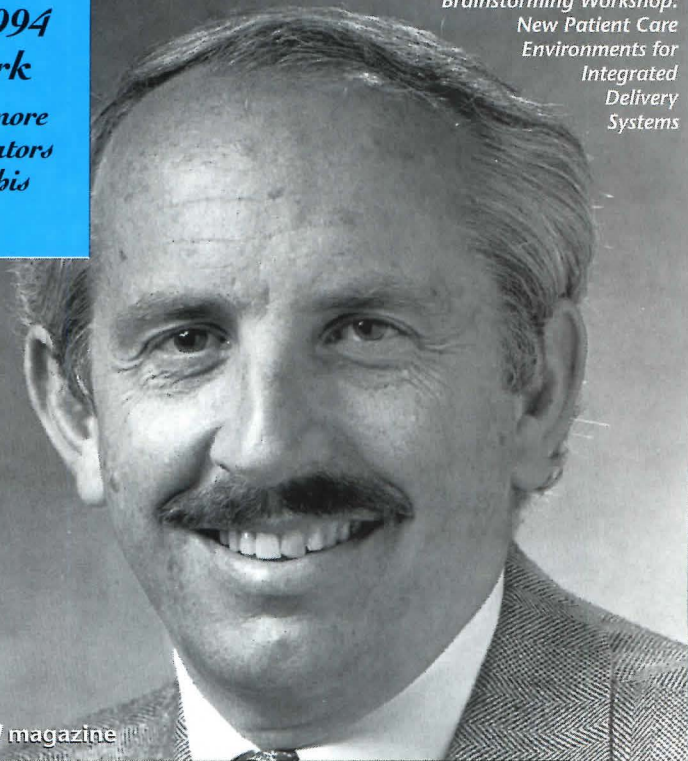
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*Designing Healthcare Environments
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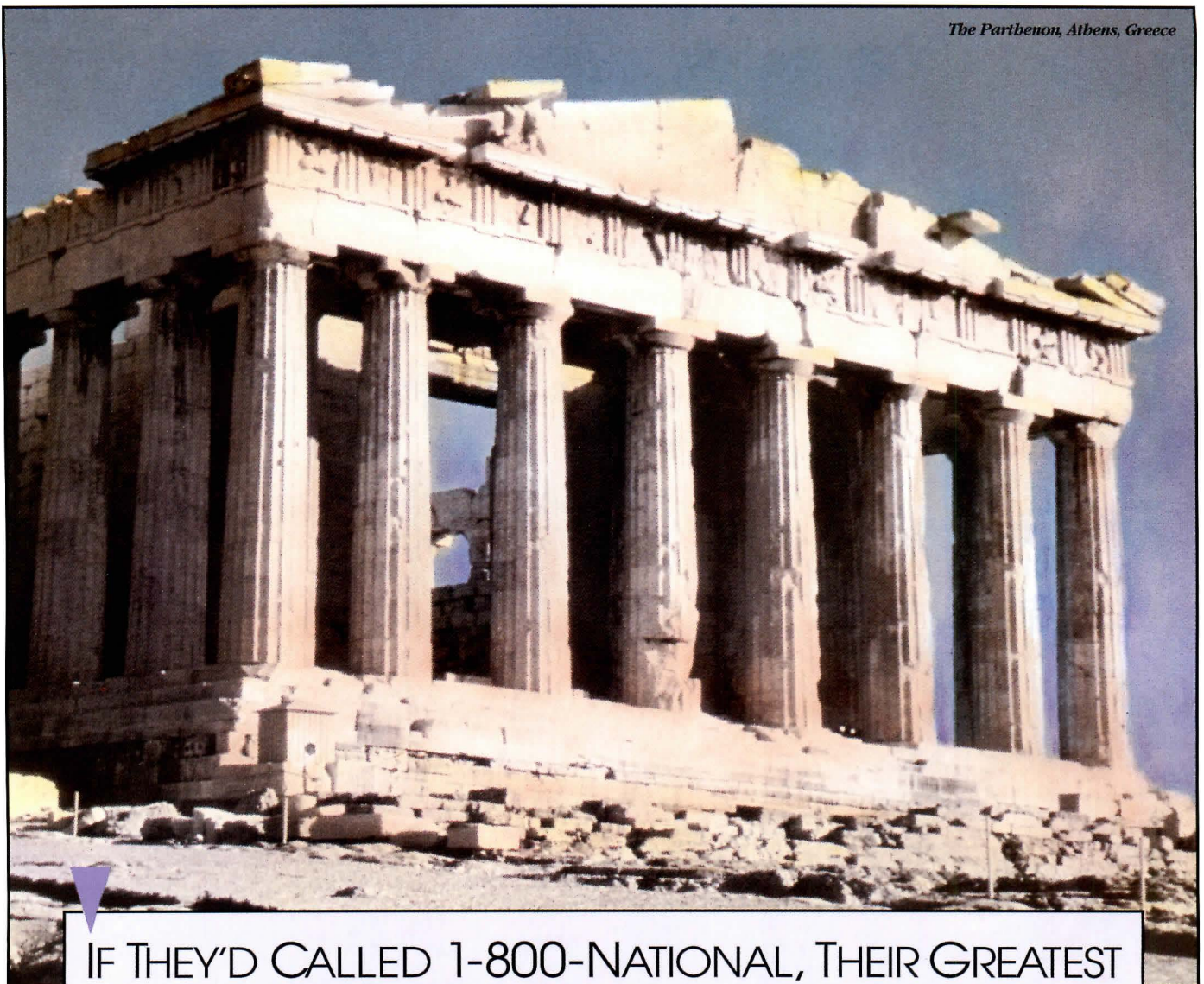


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1 p.m.

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Touch a button, and Serena's "smart" microprocessor-controlled system scrolls from shade to shade. Program the control to stop the shades wherever you want. Create many dramatic effects.

Special features:

- Impressively quiet motor
- Precise shade alignment
- Sunscreens that protect furnishings and save energy
- Our shade materials or yours
- Control 1 window or up to 16 windows simultaneously
- Projection screens for media rooms
- Integrates with Lutron lighting controls (including HomeWorks™) and other home control systems.

See Serena in Motion.

For a free Serena video, or to arrange a presentation, call 1-800-523-9466. Also ask about Serena for skylight applications.

8 a.m.



Window 1, Shade 1; clerestory for privacy with some daylight.

4 custom shades plus a clear view for every window

...at the touch of a button.



Programmable Serena Control

Circle 86 on inquiry card

LUTRON
Coopersburg, PA 18036-1299