

Progressive Architecture

May 1982





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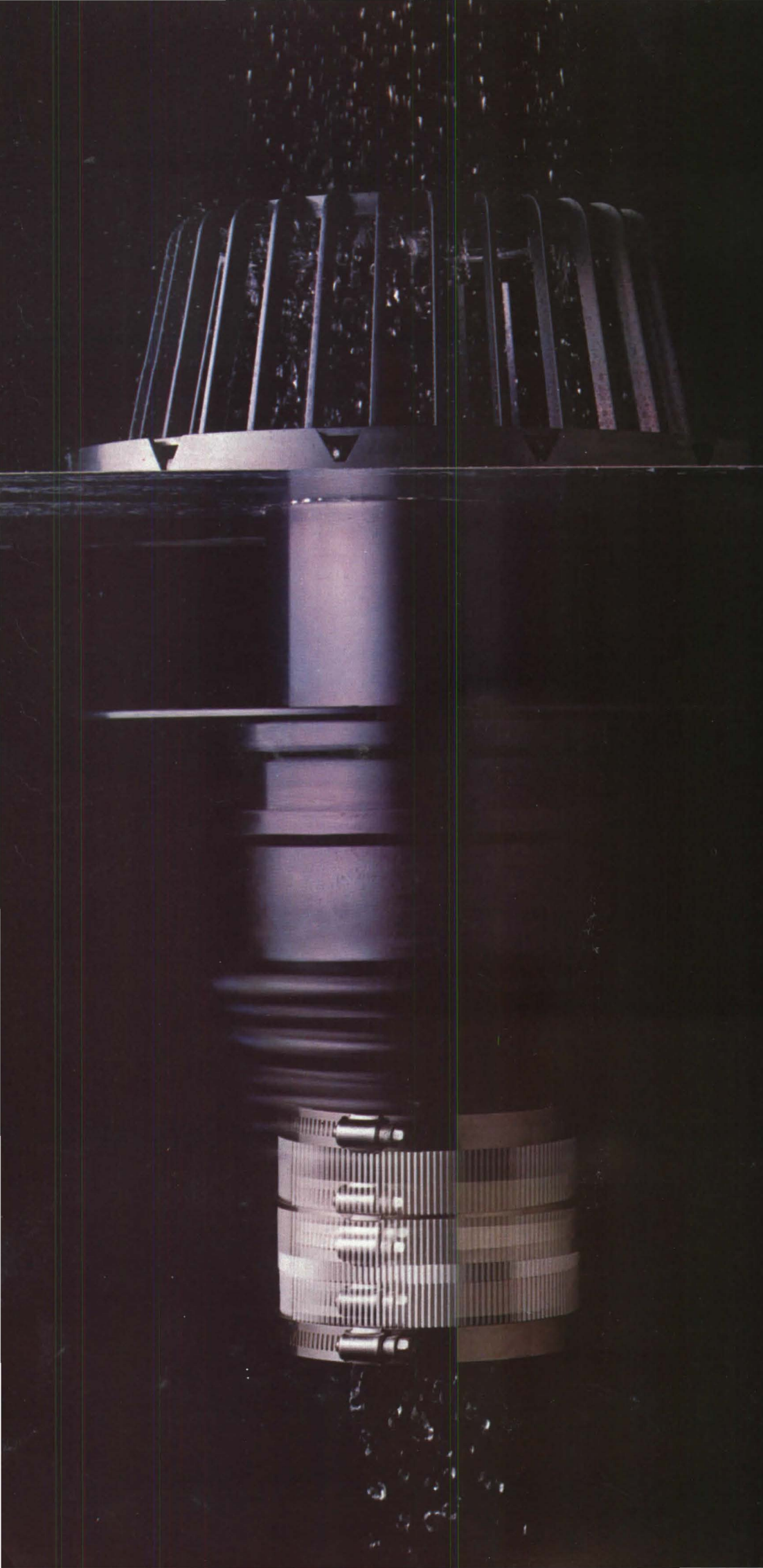
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7 Editorial: Landmark madness

- 63 **NEOCON:** Seminars, workshops, and some of the products being introduced at NEOCON 14 are previewed.

Architectural design

- 133 **Introduction: The architecture of death**
Architecture as it relates to the design of cemeteries in Europe and America.
- 134 **The geometry of death**
A historic background for five types of cemeteries that emerged following the Enlightenment. *Richard A. Etlin*
- 138 **Geometric absolutes**
Two cemeteries in Southern Italy, designed by Gruppo Romano Architetti Urbanistici (GRAU) use geometric forms.
- 146 **Meaning through precedent**
Gino Valle has designed a simple but eloquent tomb for Pier Paolo Pasolini in Casara della Delizia, Italy.
- 148 **Permanence, piety, and passion**
Architect Botsai, Overstreet Associates achieves unusual effects in a mausoleum on a hill south of San Francisco.
- 150 **Earth, sky, and richness**
Pyramidal earth forms establish the theme for this mausoleum in Colma, Ca, by architect Botsai, Overstreet & Rosenberg.
- 152 **A building adrift**
A facility for the mentally ill and mentally retarded, designed by Abend Singleton Associates, meets custodial care needs in a pleasant environment.
- 156 **Crow's-nest refeathered**
The Tobin Bridge Administration Building, Boston, a small structure in a massive bridge, has been rehabilitated by architect Andrea Leers Browning Associates.
- 158 **P/A Second Annual Conceptual Furniture Competition**
The 7 awards and 13 citations are presented, along with a selection of jury comments.

Technics

- 183 **T square of tomorrow**
Reduced costs are putting computer-aided design and drafting within the reach of even small architectural firms.
Frank Stasiowski
- 190 **Panel discussion**
Designing offices with open-plan partition systems for good acoustics and electrical flexibility.

Departments

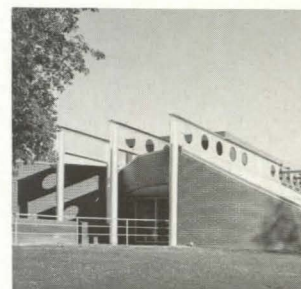
- 10 **Views**
- 23 **News report**
- 46 **Calendar**
- 50 **Perspective**
- 56 **In progress**
- 176 **Systems '82**
- 200 **It's the law**
- 202 **Books**
- 209 **Products and literature**
- 215 **Reader service card**
- 224 **Building materials**
- 225 **Management personal time**
- 234 **P/A in June**
- 236 **Job mart**
- 238 **Directory of advertisers**
- Loose subscription card in U.S. and Canadian issues**



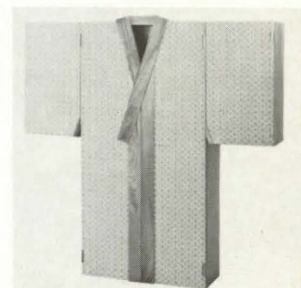
134



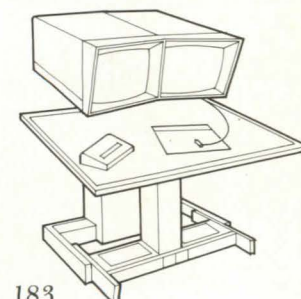
138



152



158



183

Cover: Detail of the ossuary at the new cemetery of Parabita in Puglia by GRAU.

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Landmark madness

In the early months of 1982, public spectacles, policy paradoxes, and irrational appeals have indicated ominous divisions on the subject of architectural preservation.

The outlook for landmark preservation has apparently been improving for some time. Broad public sentiment has seemed to support the orderly extension of local, state, and federal protection; tax incentives have become most persuasive under the latest federal law.

Some recent events, however, reveal both a potent backlash and a lack of consensus among supporters that could make the movement highly vulnerable:

- Though the tax laws of 1981 offer the strongest economic incentives yet for preservation, the same administration that supported the law is cutting the funds essential to administer it.

- Even Superman couldn't save two venerable New York theaters in the way of the proposed Portman Hotel (p. 23); square-jawed Christopher Reeve was one of dozens of famous actors ordered to leave the site—many of them in police vans—after the last legal appeal had been rebuffed. Notably underrepresented at the barricades were architects or other traditional defenders of architectural landmarks. Most apparently agreed with *New York Times* critic Paul Goldberger that the theaters weren't worth jeopardizing a project of great economic potential; many knew, too, that eleventh-hour opposition to a project in the works since 1973 might undermine their credibility. Clearly these buildings—never designated city landmarks—were more important to theater people than to preservers of architecture.

- A backlash against landmark designation surfaced in New York—where all social strains appear first—from adversaries that cannot be lightly dismissed: religious leaders. The Interfaith Commission to Study the Landmarking of Religious Property, in a document full of righteous phrases, maintains that any public control over the disposition of their resources is an abridgment of the "free exercise of religion." Their depiction of poor congregations saddled with prescribed maintenance of white elephants is touching (and deserves the city Landmarks Commission's sympathy), but they also assert the right of congregations to sell to the highest bidding developer either their air rights or their real estate outright. They are sure that their "ministries" represent a "far higher social priority than the otherwise laudable goal of preserving samples of certain distinctive buildings . . . for the benefit of an aesthete elite." But didn't the builders of these edifices see architectural excellence as an inherent part of their "ministry"? And hasn't an owner whose real estate has amassed irresistible monetary value over decades of tax exemption an obligation—if only a moral one—to the public?

- In an Editorial supportive of the religious leaders' complaints, *Engineering News-Record* (March 25) accuses the New York City Landmark Commission of "stuffing . . . landmark designation down the throat" of some owners that aren't "able or willing to pay the cost of the honor." They cite approvingly the revision of rules for the National Register of Historic Places that now makes owner's consent a requisite for designation.

New York's Landmarks Commission brought some of this opposition on itself by making some questionable designations. Most dubious, perhaps, was the "landmarking" of the so-called Mt. Neboh Synagogue (now the property of a Protestant congregation) on New York's Upper West Side. The Landmarks Commission made this designation by a narrow vote, and it must still be confirmed by the city's Board of Estimate. The owners make persuasive claims that the 1927 structure is of little distinction and that designation was promoted by neighborhood groups mainly to block apartment development of the site.

It is vital for that majority of architects that supports (I believe) the concept of landmark protection to acknowledge its narrow legal grounds and the divergent interests of various blocs. "Landmark" means different things to actors or historians—and certainly to owners who pay the maintenance bills—than to architects. Architects may find themselves lacking adequate allies when they defend 20th-Century architectural landmarks.

Opportunities should be pursued for endowing the term "landmark" with its potentially wider meanings of prominence in the community and historical associations, qualities with appeal beyond an "aesthete elite." One approach to this is taken up in a study of Philadelphia that won a First Award in the P/A program last year (Jan. 1981, p. 106). Where laws lay down criteria for landmarks, decisions must not be influenced by extraneous motives, such as obstructing proposed reuse of the site.

Above all, we must uphold the principle that landmark designation is made for the public good, under elected governments, not (as ENR would have it) as an "honor" for a structure or its owner. Requiring the consent of individual owners makes no more sense than levying taxes only at the option of individual taxpayers.

John Morris Dipert

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A closer examination of trends in the U.S. and greater coverage abroad would benefit P/A's readers greatly.

*Julian B. Sawyer, Jr., AIA
Walsh, Ashe, Dills Associates
Virginia Beach, Va*

[Good list of suggestions. Watch for Botta in P/A soon. We held the 2-4-6-8 House until the related Sedlak project was completed, then presented it with related works by others. We hope that made it more meaningful.—Editor]

Reds infiltrate D.C.

While I applaud the formation of a group of architects who gather to discuss their designs, I must take strong exception with Mr. Miller's media labeling (Reds Organize in D.C., P/A, Feb. 1982, p. 32). If political and aesthetic labels are going to be mixed, which seems to be Mr. Miller's intent, naming this group for the color of their brick (red) is most inappropriate, since they are almost exclusively concerned with the "look" of their designs rather than the social implications of their approach, which is decidedly ultra conservative and reactionary (white).

An aesthetic approach, which denies social conscience and purpose and focuses instead on eclectic historicism and nostalgia as its source of inspiration, is ultra conservative in that it refuses to deal with the people who occupy the architecture and the changing society in which they live. Such an approach can certainly deal with the formal academic design concerns, and has produced some worthwhile relief from modernist blandness, but it certainly cannot lead to anything more than an architecture of appearances whose intellectual base is that of fad and media hype "style."

*Martin Denholm
Architect
Washington, DC*

Kudos for metal buildings

Reading "Beyond Shade and Shelter" by Thomas Vonier in your March issue was like breathing a breath of fresh air. The article was very factual, and really "hit the nail on the head" when discussing the reluctance of architects to accept metal building systems as a means and method of construction. But you can't blame them. The metal building industry has long been trying to shed the stigma of the "tin-box syndrome" it created for itself right after the birth of the MBMA in 1956.

Today the metal building industry is starting to get the recognition it so deserves due to the vast improvements it has made as you so noted in your article. And I can say from experience that it is indeed possible to work with an independent architect to create a custom facility that is functional, aesthetically pleasing to the eye, and built on time and within budget by using the systems approach. For bringing us builder/dealers one step closer to the architects of the world, I say, "thank you."

*Barry L. Bauer
Project Coordinator
Horst Construction Co.
New Holland, Pa*

While Mr. Thomas Vonier's article, *Technics: Pre-engineered Metal Building Systems* (P/A, March 1982), is very informative, I urge P/A to devote its attention to examine another area related to this development, but beyond the domain of Technics.

That is: the method of the marketing of these systems. Through their dealers (formerly general contractors), these building systems are now being advertised and marketed directly to prospective users, usually in conjunction with *design and build* packaging approach. Architect/Engineer firms are not only "peripheral," but losing a great deal of opportunities and influences, in terms of shaping the environment. Once again, the professional base of architects erodes.

*Bonlap Chan
Bonlap Chan Architects
Southfield, Mi*

Correction

Proposed faculty housing for Rockefeller University (P/A, Jan. 1982, p. 81) represents part of a feasibility study; the university indicates that they are not planning at this time to proceed with this project.

The Rancho Bernardo arts center competition (P/A, March 1982 News Report, p. 30) had five finalists, not four as reported. The fifth was CITYWEST, San Francisco.

Materials oversight

In the Building Materials list for the South Central Bell Telephone Company Building (P/A, April 1982, p. 230), the Magnagrid® cellular ceiling system by Intalite International was inadvertently omitted.

Credit due

The photograph of the PSFS Building (P/A, Feb. 1982, p. 98) is by Robert Harris Photography.

Re arbitration

It was with great interest that I read your article, "Arbitration rights when a suit is involved" by Norman Coplan at page 135 of your February 1982 issue.

As the attorney for the plaintiff, Preiss/Breismeister in the case highlighted by this article, I believe that Mr. Coplan has properly highlighted the central dispute in this action. What must further be understood is the fact that the Plaza Hotel, after wrongfully terminating the architect and converting their plans for continued use by a new design team, is using the argument of waiver of right to arbitrate as a means of continuing the project with the converted plans. Ultimately, the damages flowing therefrom will be the subject of arbitration unless the decision of the lower court is reversed on appeal.

It should be further noted that on February 25, 1982, the Appellate Division, 1st Dept., affirmed the lower court's decision compelling arbitration with two Justices dissenting.

The Plaza Hotel has filed a notice of appeal and this issue will be finally resolved by the Court of Appeals, New York's highest court.

*Barry B. LePatner
New York, NY*

Introductions all around

I have just finished the March issue and offer the following response to your editorial "And Introducing. . ."

While P/A can rightfully take pride in its role in identifying new design trends and presenting previously unknown designers, it should keep in mind that architects like Ahrends Burton and Koralek, Rock Townsend, Eldred Evans (England), Martorell, Bohigas & Mackay (Spain), Mario Botta (Switzerland), Vittorio Gregotti (Italy), Henning Larsen (Denmark), Lund & Slatto (Norway), Sumet Jumsai (Thailand), Wilhelm Holzbauer (Austria) and Roelof Uytendogaardt (South Africa) have never had work published in P/A or any U.S. magazine. Certainly they deserve inclusion in any review of our profession.

I also find it surprising that it is necessary to read foreign periodicals in order to see the latest in American design. To cite a recent example, Morphosis' 2-4-6-8 House has been in *Domus* (3/80) and *GA Houses* (1981) before publication in P/A.

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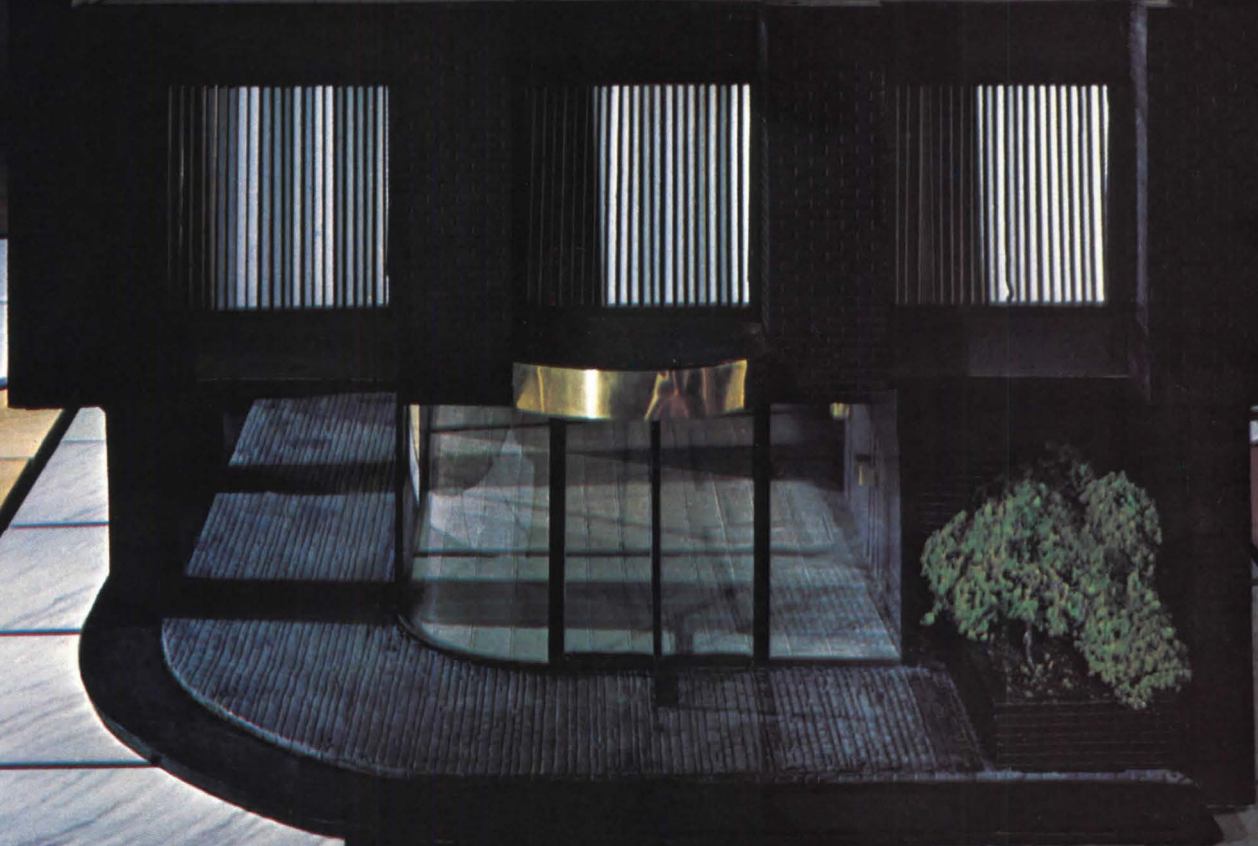
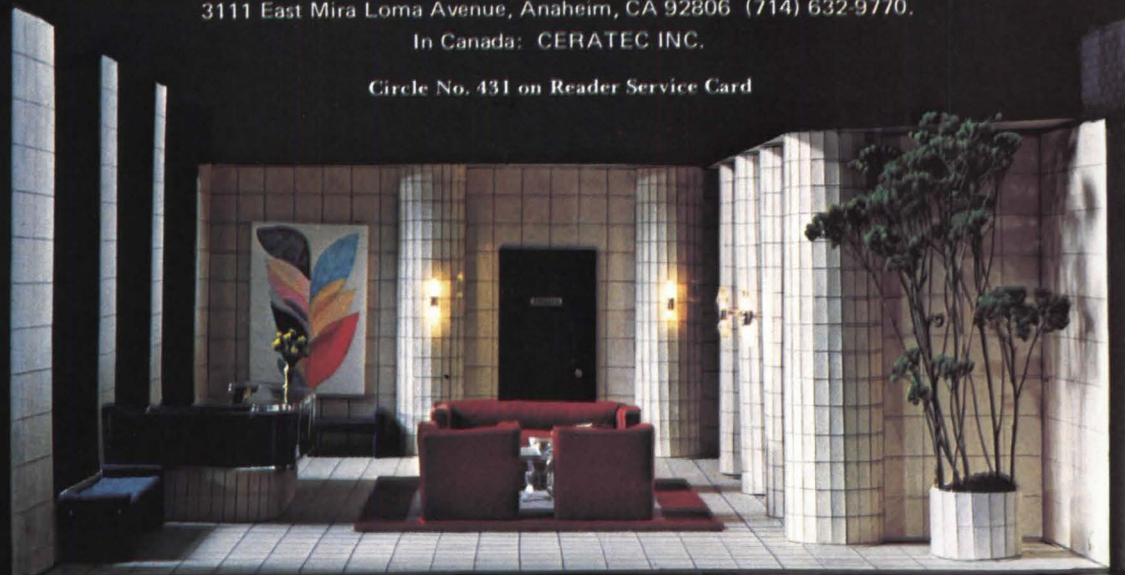
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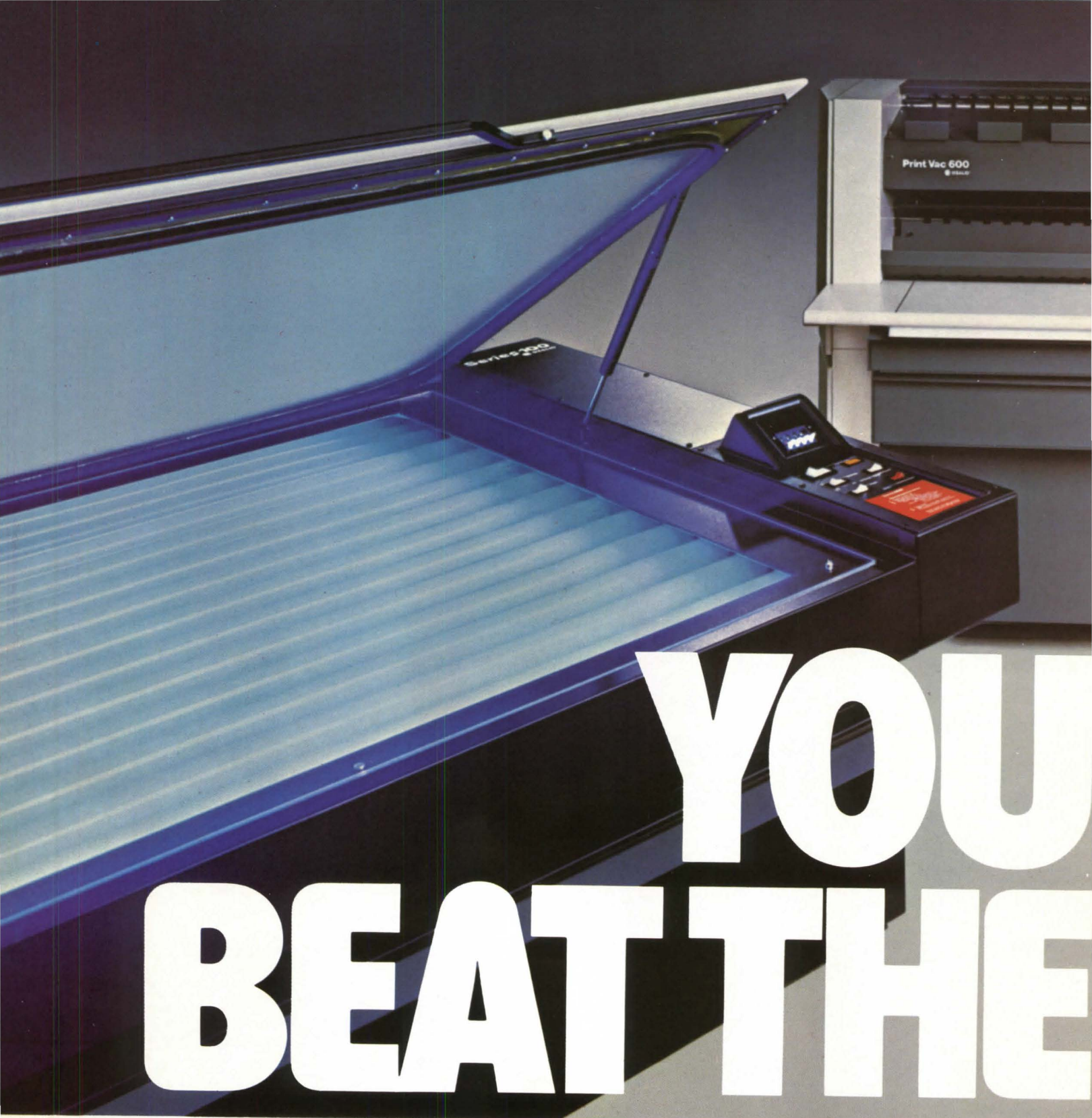
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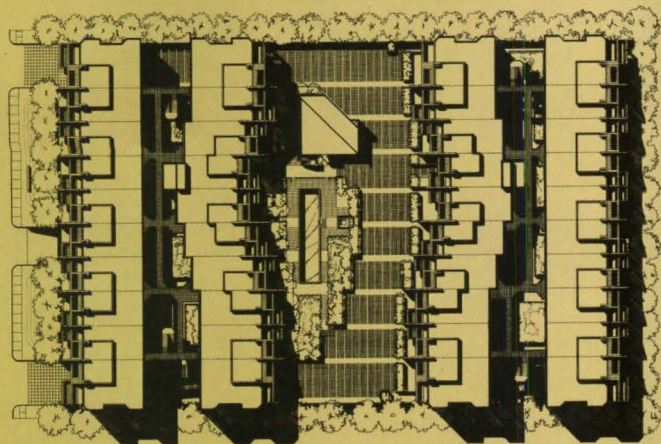
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Project:
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Owner:
A joint venture of David Mitchell Companies and Mac-Carey Properties, Inc., Houston
Developer:
David Mitchell Companies, Houston
Architects:
Sandy/Babcock & Associates, San Francisco;
project architect, Steven House AIA
Structural Engineer:
M. Hourani & Associates, Houston
General Contractor:
Urban Construction Company, Houston
Framing Contractor:
Marek Brothers Company, Houston



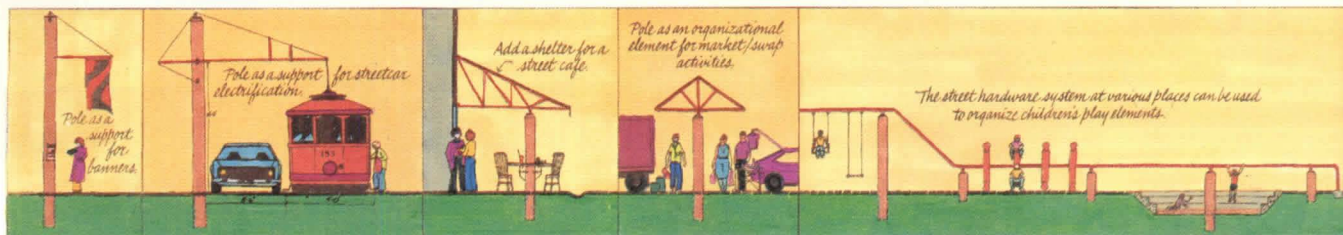
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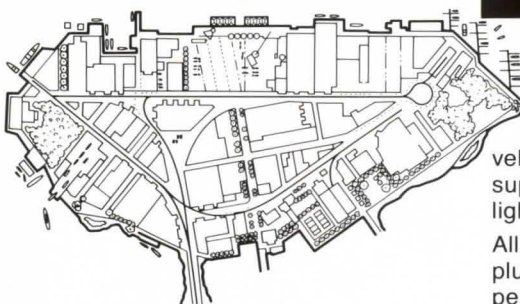


Some exposed surfaces age
more gracefully than others



Recaptured Island

Treated wood poles help to reclaim a rundown island community



Once it was a sandbar off the Vancouver, B.C. waterfront. Around the turn of the century, Granville Island was created with silt dredged from surrounding False Creek; and soon it supported a thriving industrial center. But by the 1970's, it had become a deteriorating eyesore.

Today, Granville Island is reborn as a dynamic community, factories, theaters, shops, galleries, restaurants, and two colleges—one of them constructed on a floating barge.

This startling renaissance was accomplished with minimal materials, retaining the island's industrial character and its resulting pattern of ramps, loading docks, giant portals, alleyways, cranes and structures.

"The new design builds upon and reinterprets this pattern for a wider public use," says architect Norman Hotson. "It represents a return to the period before zoning sterilized our urban environments—a period when a single city street could offer a blacksmith, pub, shoemaker, and corner grocery."

Hotson and co-designer Joost Bakker gave coherence to the diversity of the new Granville Island community with a unifying system of street hardware. Heavy timber poles and trees serve as a visual and functional structuring device. Connected by a continuous pipe lintel in vivid colors, this system of poles provides continuity through the network of streets, mews, and lanes and also serves as

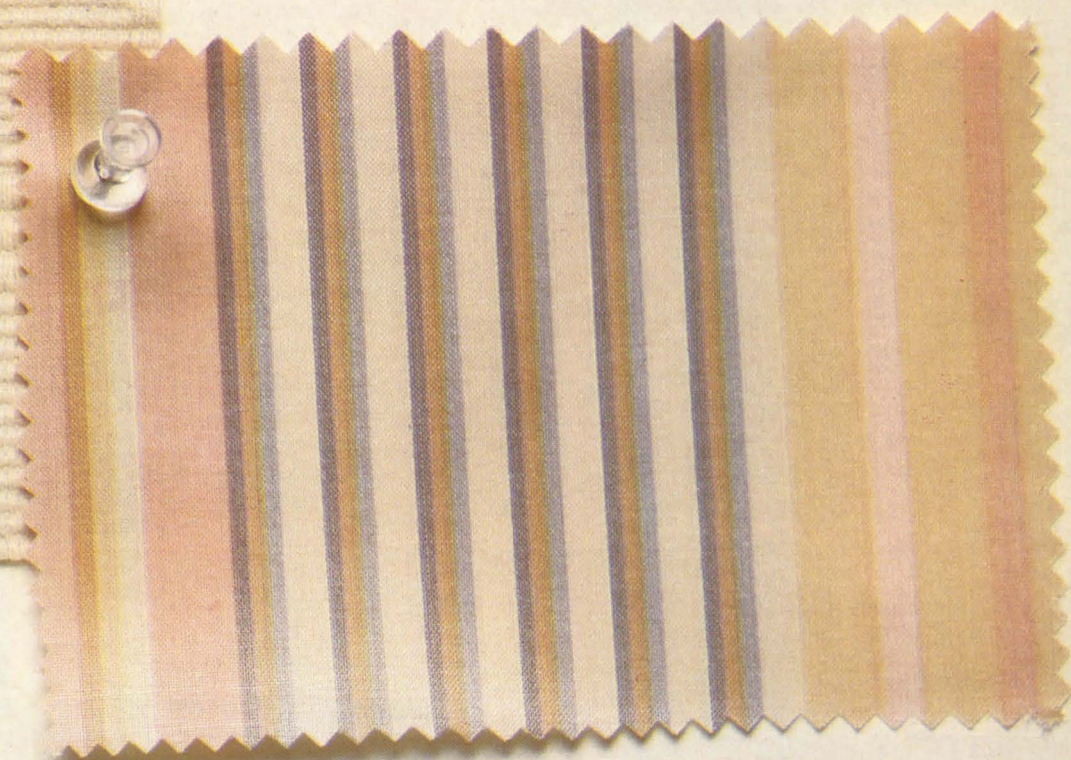
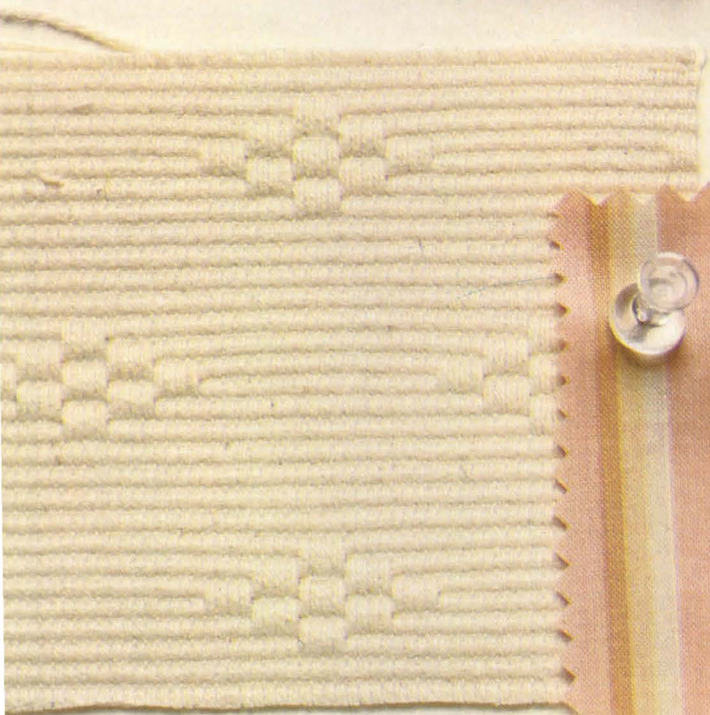
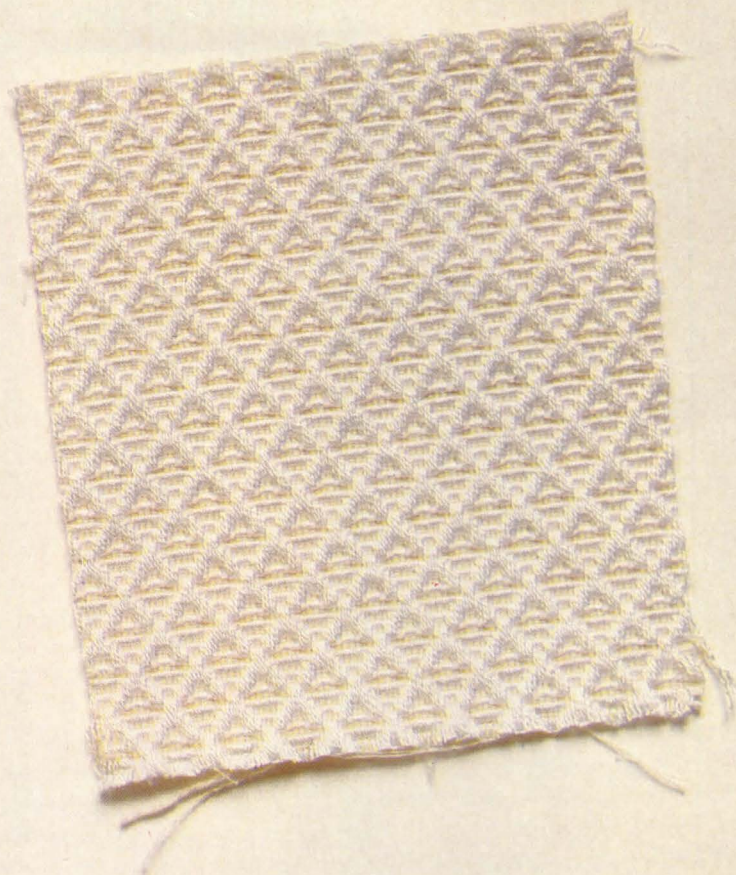
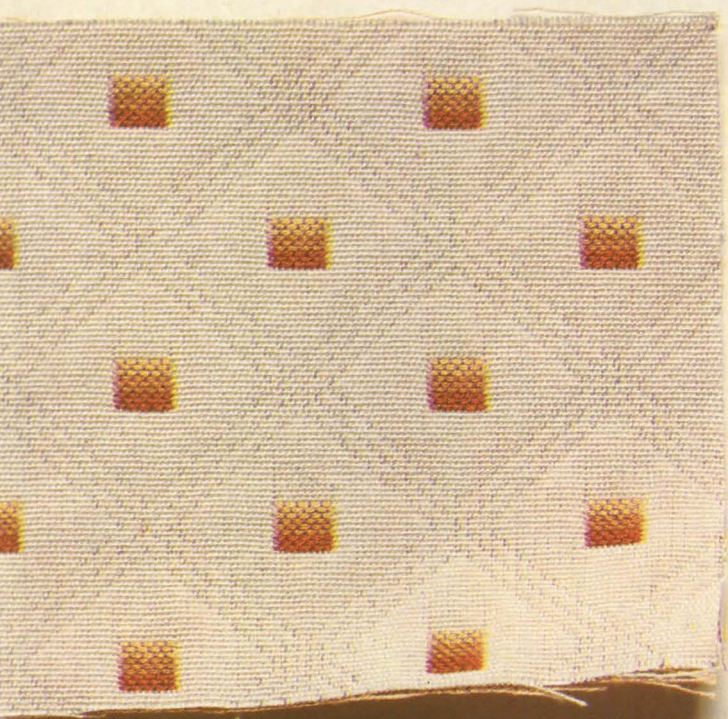
vehicular separation and as physical support for canopies, awnings, and lights.

All poles for the \$5 million project, plus 50,000 board feet of lumber for perimeter docks and walkways, were supplied by Koppers International Canada Ltd. And all were pressure treated with Wolman® preservative chemicals for enduring resistance to decay and termite attack. Pilings along the shoreline were pressure treated with creosote.

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Architect: Norman Hotson
Co-Designer: Joost Bakker



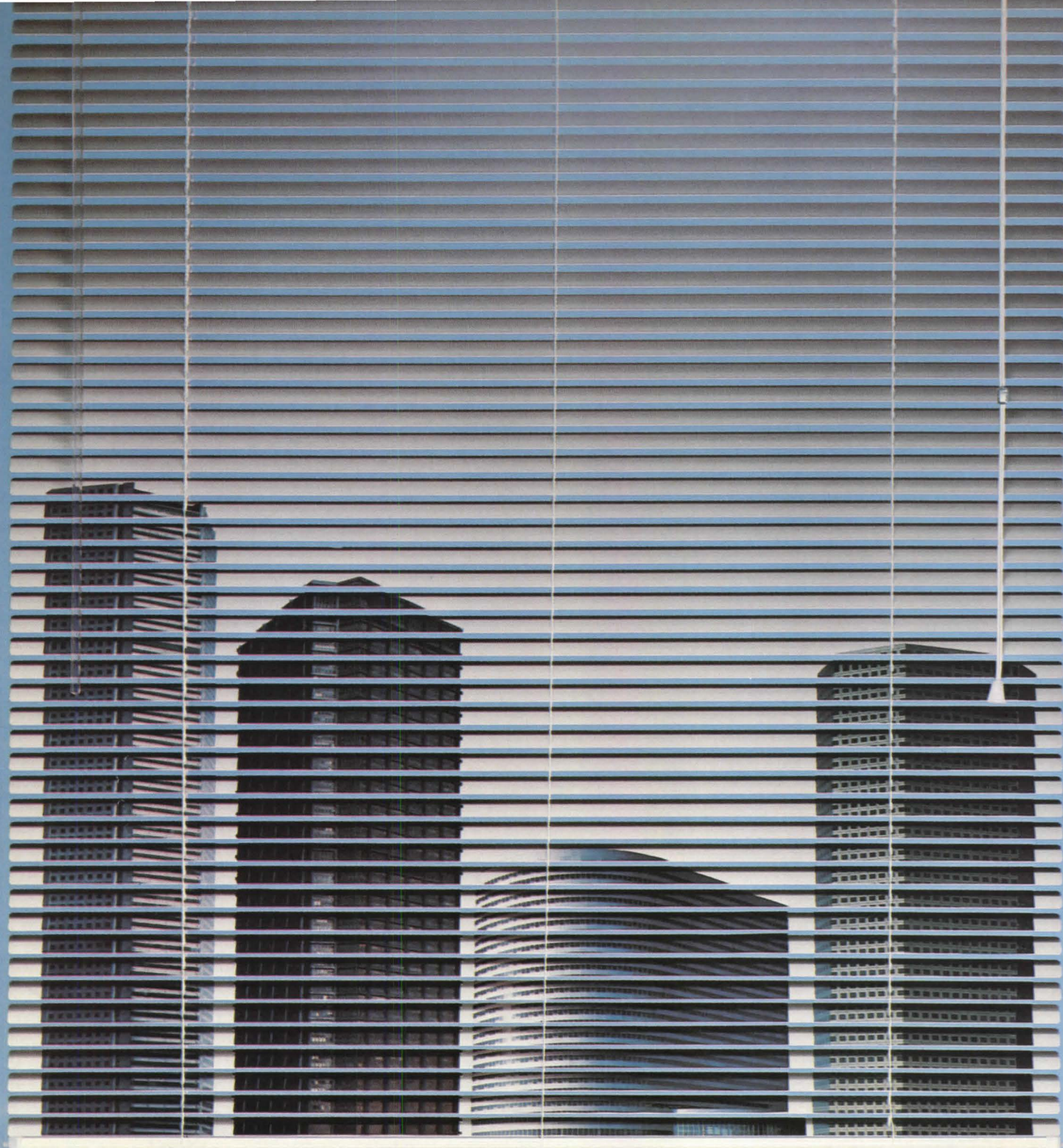
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Pencil points

Pritzker winner

The fourth annual Pritzker Prize (the architecture world's Nobel) has been awarded to American architect Kevin Roche (more next month).

Morosco, Hayes lose to Portman

Actors, theater aficionados, and preservationists gathered in street demonstrations, trying to prevent destruction of the Helen Hayes and Morosco Theaters to make way for the Portman Hotel on New York's Times Square.

¶ Alas, the United States Supreme Court lifted the last major legal impediment to construction of the new hotel, and demolition of the old theaters rapidly began.

¶ Some hoped to save the theaters by implementing architect Lee Harris Pomeroy's plan for revising the Portman building to span the existing structures.

¶ Others still object to the massive, scaleless nature of the Portman design, even aside from the preservation issue.

¶ Others questioned the wisdom of tying the hotel into a pedestrian mall scheme by having it project beyond the street line.

¶ But the behemoth, it seems, will rise.

American Academy in Rome

In addition to the Rome Prize Fellowships and Mid-Career Fellowships (P/A, March, p. 40) awarded by the American Academy in Rome,

¶ John McDonald, architect with Skidmore Owings & Merrill in San Francisco, has won the Steedman/A.A. in R. Fellowship in Architecture.

¶ Fellows in residence in Rome will be James Stirling (autumn) and John Hejduk (spring).

Princeton dean

Robert M. Maxwell, a professor at the Bartlett School of Architecture and Planning, University College, London, has been appointed Dean of the School of Architecture at Princeton University.

¶ Maxwell is also partner in the London architectural firm of Douglas Stephen & Partners, and is known for his critical writings linking Modern architecture with other contemporary art forms.

¶ Maxwell will assume his new duties in September, replacing current dean Robert Geddes.

Columbia appointment

After a lengthy search for a chief librarian for Columbia University's Avery Library, Angela Giral has been chosen.

¶ Giral is currently chief librarian at Harvard University's Graduate School of Design.

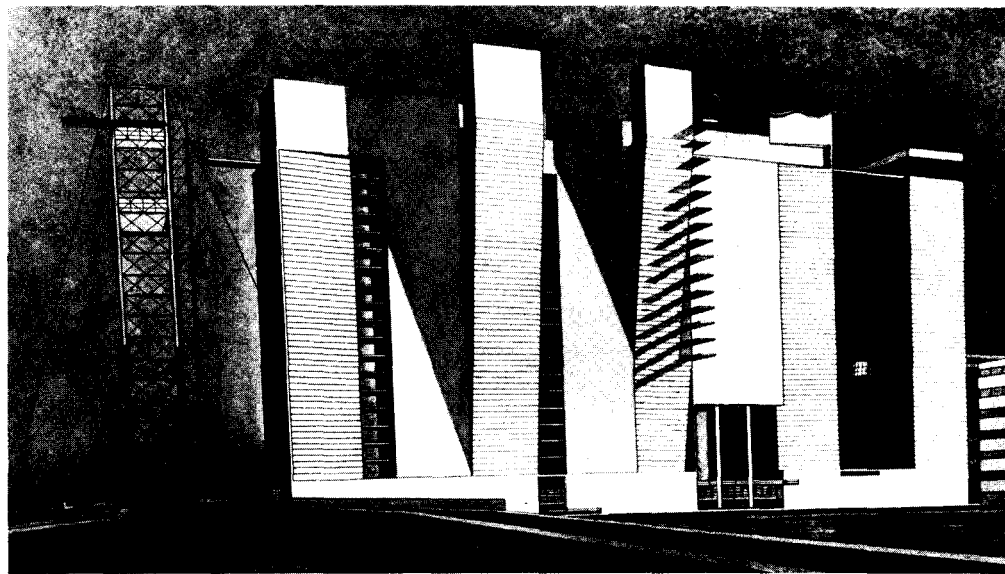
¶ Avery's former chief librarian, Adolph Placzek, will remain as a member of the library's advisory committee.

Biennale, third time

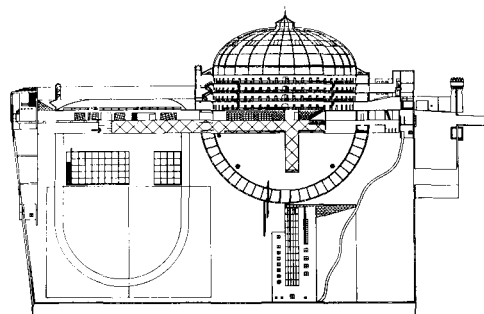
San Francisco will be the third host (second: Paris) to the "Presence of the Past" from the Venice Biennale '80.

¶ Dates: May 20-July 28. Location: on the waterfront, Fort Mason Center, pier 2 [Pencil points continued on page 40]

PA News report



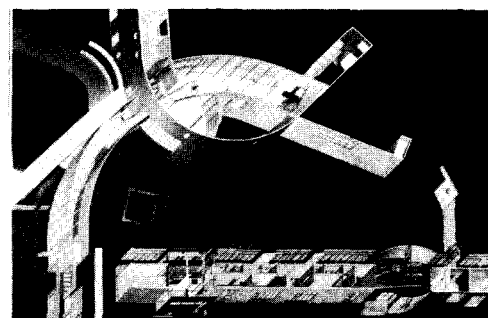
Dorothy Alexander



A different drummer

The Office of Metropolitan Architecture, begun by a Dutchman (Remment Koolhaas) and a Greek (Elia Zenghelis) and thriving in London, has occupied for some time the precarious position of Modern Movement advocate. As they have always seemed more entranced than enlisted, inventively tampering with principle and precedent and cloaking polemic in lyrical fantasies (Koolhaas was a journalist, script writer, and film-maker before architect), they have been welcomed not by the Philistines, but by the avant-garde.

Now OMA moves from architectural parable to architectural practice. Its first commissions, ranging from revamping a 19th-Century Panopticon prison to mixed-use highrises, were exhibited concurrently in March at the Max Protetch Gallery and the Institute for Architectural and Urban Studies in New York. Even amidst today's profusion of



OMA's Rotterdam project (top); Panopticon renovation (above left); and residence for the Prime Minister in Dublin, competition entry (above).

drawing, OMA's welter of techniques and willful and spirited improvisation stand out.

The case for Modernism—its forms, urbanistic predilections, and programmatic preoccupations—is implicit. Formally, the work is a potpourri of slabs, cantilevers, piano-shaped extrusions, ribbon windows, freestanding planes, and Constructivist intersections. There is a particular gravitation towards periods of great enthusiasm and innocence and popularity, embracing kitsch along with theosophy, but not unimpressed by the more recent inventions of Superstudio and Rossi. If the impression is more festive and excited than powerful, there is, nonetheless, an enormous critical intelligence underlying.

Unfortunately, it also falls heir to cer-

[News report continued on page 24]

tain flaws of Modernism. OMA's urbanism is as scattered and rude as that of its predecessors. New buildings elbow into and shove against old, neither melded nor knit, at most sardonically aware. Even within totally new work, transition is played for maximum disruption—pieces float oblivious, hook accidentally, or slice through one another.

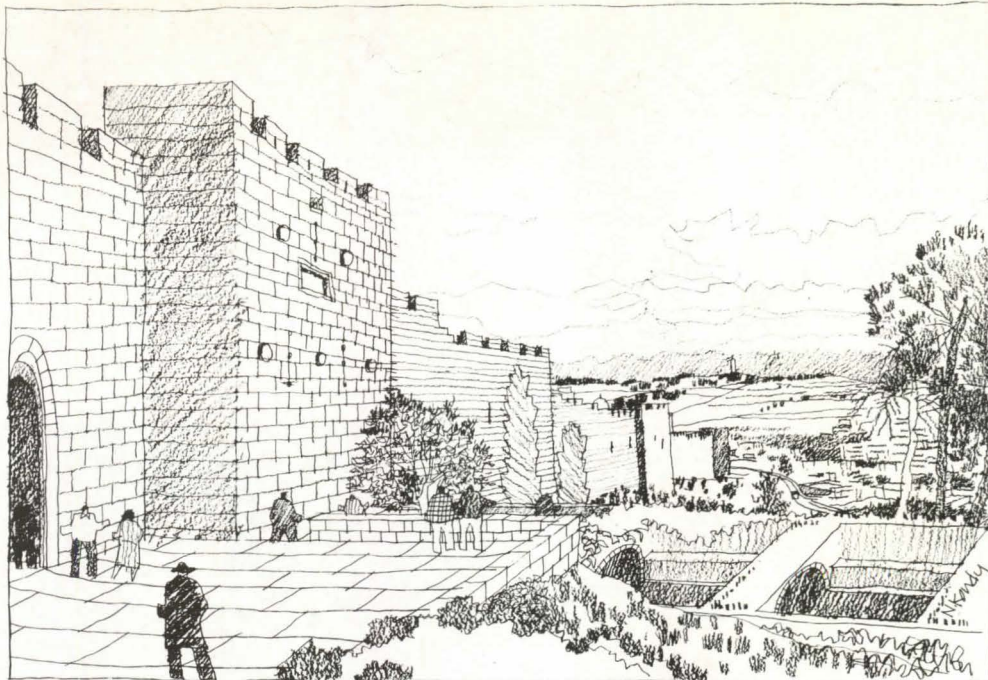
Program is their argument. What Modern architecture really needs, they say, is a proposal for enriching the lives that go on within the buildings. Yet the perspicacity of the observation renders the work lame by comparison. There is clearly no urgency, no considered and deeply felt convictions about what those lives might consist of. The architects talk about hedonism, but design within one of the most self-consciously Puritanical formal vocabularies ever devised. Even more to the point, they design—in the tradition of post-war Modernism—from the air. Human scale and proportion, the actual experience of walking by or being within the buildings, remain low on the list of priorities. There is an attempt to give meaning to form, but it is half-hearted. For instance, a swimming pool is placed where a moat used to be.

The architects' insights—the necessity to rescue the recent past from “the slag heap of history,” the primacy of invention, the unexplored possibilities of progress—are incisive. But the work shows their considerable talents hampered by an academicism that seems too easily contented with being lively and clever. [NM]

Jerusalem developments review

In 1969, the Mayor of Jerusalem created an international advisory body, the Jerusalem Committee, consisting of planners, historians, architects, theologians, philosophers, educators, diplomats, legal experts, and sociologists, to work on matters affecting the priceless religious, cultural, and artistic heritage of the city—matters of concern to all humanity.

Meeting at approximately three-year intervals, members see developments in the city, and their comments are taken into consideration. Unfortunately, they must operate under an enormous time pressure. In March this year, in four 16-hour days, they had to consider recent and projected planning projects; new neighborhoods and their burgeoning community structure; restoration and preservation both of archaeological sites in and around the Old City and of buildings elsewhere; social and education issues; and (off the record) preliminary ideas for a new administrative structure for the city, which could adapt to any future situation into which a united Jerusalem might be pushed.



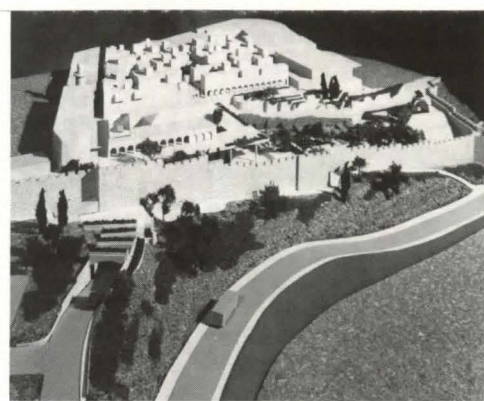
Most issues required inspection of the relevant sites. Because of shortage of time, discussion of the planning issues had to be postponed to a future date.

The biggest program presented by the city engineer concerned measures proposed for relating outlying neighborhoods (built by the government) to the core of the city. The aim is to concentrate development along historical corridors to the north and south and along the approach to the west. To the north, on land between Neve Ya'acov and French Hill, 1200 housing units and commercial and leisure facilities are planned. Between here and Damascus Gate lies a former no-man's-land known as the Seam because it links North Jerusalem to the Old City and East Jerusalem (Arab) to West Jerusalem (Israeli). Here, along the north-south axis, hotels, shops, and offices will flank a highway.

The derelict southern corridor of Hebron Road will be the southern gateway to Jerusalem, with 6-story housing and hotels. At the perimeter lies the new neighborhood, Gilo, designed by A. Yaski & Associates, already reaching completion. Faced entirely with stone, as are all buildings in the city (a remnant of the British Mandate), it lies along the crest of a hill and is designed to reflect the Walls of the Old City.

The Western corridor involves not only a new highway, but an international convention center and exhibition halls near the Hilton Hotel and an air terminal.

A lesser, but still controversial, proposal provides underground parking for the residents of the Jewish Quarter of the Old City: Lawrence Halprin had been commissioned to study the problem and has produced an elegant solution. The idea of tunneling under the Wall near Zion Gate, however, elicited emotional opposition from some, including Bruno Zevi, even though the site has been fully examined for archaeological remains.



Promenade outside Old City of Jerusalem walls (top); model of the Jewish Quarter, with tunnel under wall at left (above).

Moshe Safdie is looking at methods to improve the clumsy job perpetrated by the Jordanians in widening Dung Gate. His much reduced scheme for the Mamillah area was not offered this time for the Committee's scrutiny. Neither was Denys Lasdun's long-awaited design for the Hurva Synagogue, to replace Louis Kahn's design.

After seeing the carefully preserved archaeological sites, the overhauled and repaired infrastructure in the Muslim and Christian Quarters, the new neighborhoods, an Arab school, a number of buildings in the Cultural Mile in the Hinnom Valley—to mention but a few of the visits—the Committee concluded that the Municipality has cause for pride. Mayor Kollek and his teams have preserved the mosaic of life-styles, cultures and, above all, different religions in a city that remains living and dynamic. [Monica Pidgeon]

AIA Honor Awards

Twelve architectural projects have been selected to receive The American Institute of Architects 1982 Honor Awards, to be presented at the 1982 AIA National Convention in Honolulu, June 6-9.

Selected by two juries (for current use and extended use) from 481 entries, eight of the winners have been designed and completed within the past seven years; the other four are older structures that recently have been renovated or adapted to new uses.

The current-use jury noted the preponderance of modest and low-tech commissions in the final pool of projects, which ranged from private use to small public institutional buildings, but had anticipated more examples of design that could represent solutions to the many large-scale, socially significant, or technologically difficult building problems facing us today. The few submissions which dealt with these issues, however, did not sufficiently transcend their origins to become architecture of a higher order. The winning buildings are sensitive to and fit easily into their surroundings. Spatial organization is conceived for the benefit of the user, rather than to satisfy a preconceived geometric order. Appropriate use of traditional building materials and methods has produced a variety of solutions with appealing textures and colors.

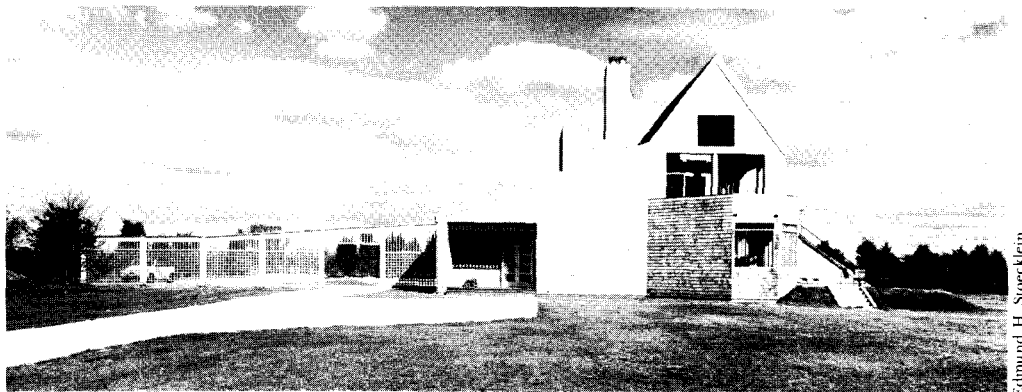
It was the feeling of the extended-use jury that while the quality of restoration in the U.S. had markedly improved in recent years, the quality of work that demands an interweaving of old and new still generally falls short of the quality of the best new design, a problem that will be most telling next year when extended-use entries to the AIA awards are judged alongside new work.

The winning projects and architects are, for current use:

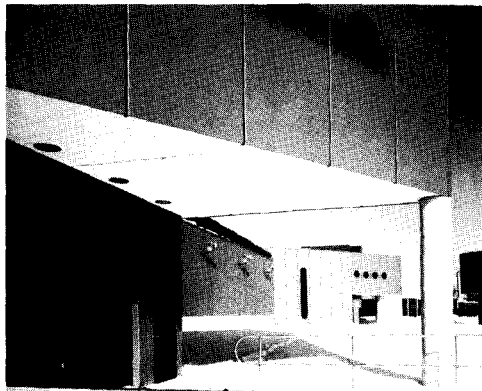
- Le Jeune Residence, Orono, Mn, by Frederick Bentz/Milo Thompson/Robert Rietow, Inc., Minneapolis;
- Illinois Regional Library for the Blind and Physically Handicapped, Chicago, by Joseph W. Casserly, City Architect, City of Chicago; consulting architect, Stanley Tigerman & Associates, Chicago (P/A, April 1978, pp. 76-81);
- Residence, East Hampton, NY, by Eisenman Robertson Architects, New York;
- Garfield Elementary School, San Francisco, by Esherick Homsey Dodge & Davis, San Francisco;
- Lath House at Heritage Square, Phoenix, by Robert R. Frankeberger, AIA, Phoenix;
- Macondray Terrace, San Francisco, by Hood Miller Associates, San Francisco;
- American Academy of Arts and Sciences, Cambridge, Ma, by Kallmann, McKinnell & Wood, Architects, Inc., Boston;
- Talbot House, Nevis, West Indies, by Taft Architects, Houston.



Richard Sexton, Matrix



Edmund H. Sroeklein



Philip Turner



Wayne Thom

For extended use:

- Schulman House Addition, Princeton, NJ, by Michael Graves, Princeton, NJ;
- Valley National Bank, Des Moines, by Charles Herbert & Associates, Des Moines; original project architects, Proudfoot, Rawson, Souers & Thomas, Des Moines (P/A, Nov. 1980, pp. 112-115);
- Curtis Park Face Block Project, Denver, by Long Hoeft Architects and McCrystal Design;
- Scoville Square Building, Oak Park, Il, by Office of John Vinci, Inc., Chicago.

Macondray Terrace (top); East Hampton residence (middle); Lath House at Heritage Square, detail, foreground (above); Illinois Regional Library for the Blind (left).



A government building by the 1981 Sullivan Award winners. **ELEVATORS BY DOVER**

A purposely informal organization of elements distinguishes the Skagit County Administration Building in Mount Vernon, Washington. Designed to promote ease of access and open government, the building houses six county departments and three public hearing rooms on a downtown courthouse block. Two Dover Elevators help smooth the flow of inter-floor traffic. For more information on Dover Traction and Oilraulic® Elevators for low, mid- and high-rise buildings, write Dover Corporation, Elevator Division, Dept. 686, P.O. Box 2177, Memphis, Tennessee 38101.

DOVER The elevator innovators.

Skagit County Administration Building, Mount Vernon, Wash.

Architects: The Henry Klein Partnership, Mount Vernon.

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Boilerhouse with Art & Industry show.

The Boilerhouse: art, industry, sponsorship

In the Boilerhouse Project, the new gallery at London's Victoria and Albert Museum, the usual relationship between art and its corporate sponsors is reversed. Opened in January, it is the first child of the independent educational charity established by Terence Conran, whose chain of Habitat stores spread its brand of modern design—from dishcloths to pine cupboards—like Morris & Co., at mass market prices—unlike Morris & Co.—throughout England and indeed the world ("Conran's" in the U.S.). The new 5000-sq-ft exhibit and support spaces are dedicated to encouraging "professional and popular interest in the practice, history, and theory of design" by the illustration of the industrial process.

The Boilerhouse is both a physical and an administrative insertion into the body proper of the Museum. Physically, the subterranean space was excavated at Conran expense out of the former boilerhouse yard, hence the name. The Conran Foundation will own and run the gallery independently of the Museum for five years, after which the Foundation will move to permanent premises, returning the Boilerhouse space to the Museum as a gift.

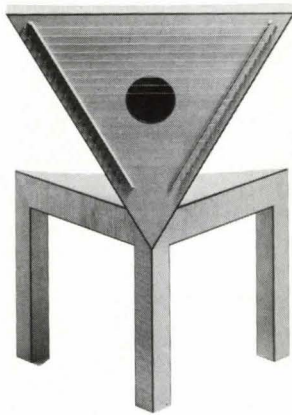
In the eyes of Conran Foundation Director and Curator Stephen Bayley, the Boilerhouse turns traditional museum philosophy inside out, drawing the focus away from the unique item to mass-market achievements. The first exhibition, "Art and industry, a century of design in the products we use," designed by Alan Irvine, displayed the classic AEG products designed by Behrens alongside Raymond Loewy's 1929 Gestetner Model 66 office duplicator, and Norman Bel Geddes' Toledo Scale (also 1929) in iron and enamel alongside its post-crash successor, Hubert Bennett's scale in a resin-based

material. The second, even more controversial exhibit is entirely dedicated to SONY products.

In the eyes of its critics, business is infiltrating the museum in a most inglorious way, confusing "styling," a commercial process, with "style," pure art. Only the naïve, however, will have serious misapprehensions about the unholiness of the alliance. After all, the V & A was founded in a commercial age to record the art of its day.

Still, at the Boilerhouse, only a fine line divides the approach that recognizes the importance of educated taste, even for mass products, and the approach that "museumizes" everything. As Stephen Bayley says, quoting Henry Ford, "You can read any object like a book, provided you know how." His intentions, couched in those terms, seem honorable. Will they, like Ford's products, prove profitable? How, and for whom? [Hélène Lipstadt]

Hélène Lipstadt, a social historian and anthropologist, writes frequently on 19th-Century and contemporary architecture.



Musical chair.

Critical mannerism

Zurich architects Trix and Robert Haussmann, along with designer Alfred Hablutzel, have created a new collection of fabrics for Mira-X International. The Haussmanns, who are known for their trompe-l'oeil historicist interiors and furniture designs (P/A, Sept. 1980, pp. 142-147), and Hablutzel have produced a group of over 200 coordinated textile designs in cotton and linen for the H Collection, ranging from *faux marbre*, malachite, and burl wood to swags and rusticated stone. Under the banner of "critical mannerism," and quoting from sources as diverse as Byzantine mosaics and Hans Hollein, the designers have used textiles to achieve "the free interpretation of the surface of an alien material." Alien they do seem, but in an arresting and rather luxurious way.

Apart from their foray into fabric design, the Haussmanns recently designed a piece of "multipurpose furniture" in the form of an extremely elegant music chair, an "ironically critical object" that is both a chair and a musical instrument, and manufactured just as a fine stringed instrument is. It is made of maple, with

a sounding board of select fir, steamed pearwood edges, and ebony bridges. Its 20 covered steel strings, however, are tuned in a chromatic scale, so that if you don't know the words, chances are that you won't be able to hum a few bars, either. [PV]



Columbus city hall.

SOM's awkward nod to Post-Modernism

The new Columbus, In, city hall was hailed as another "Columbus landmark" and "a \$5 million masterpiece" at its dedication last October. Designed by Charles Bassett of SOM/San Francisco, the Columbus City Hall provides 60,000 sq ft for the police department, city council, and local government agencies in a three-story brick and limestone building. It is close to the Bartholomew County Courthouse, an imposing 1874 Second Empire style monument. Also situated across the street from SOM's 1971 *Republic* newspaper plant (a quintessentially Miesian glass box), Columbus's newest architectural showpiece graphically illustrates an important firm's evolution from an elegant International Style aesthetic to an unconvincing Post-Modern one.

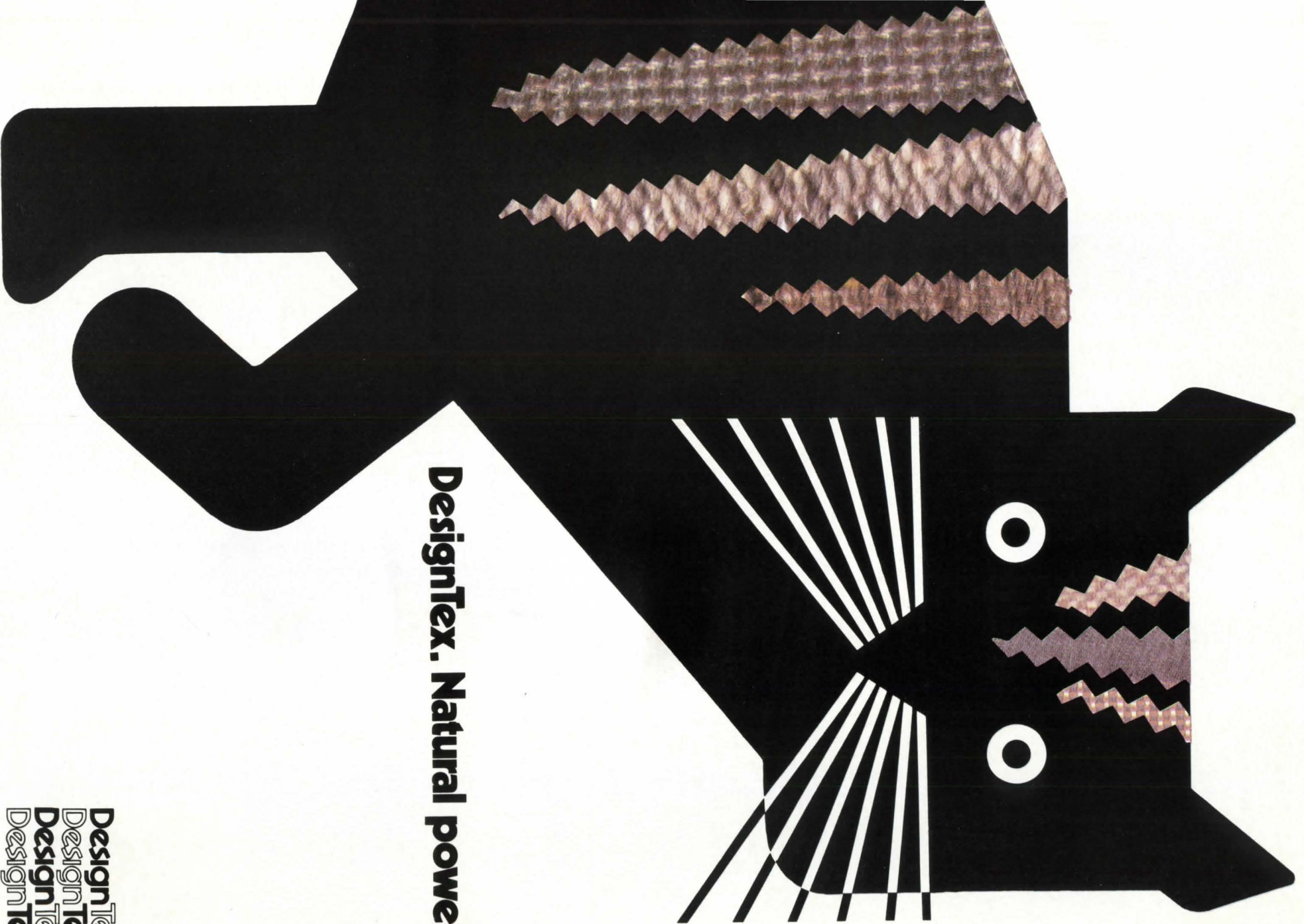
An isosceles triangle in plan, the city hall occupies half its lot and faces the street at a 45-degree angle. Its ground floor is expressed as a plinth, or Palladian basement, while the windowless upper stories are articulated only by a simple belt course. This blank façade is interrupted by a symbolic entrance (defined by two 35-ft, brick-veneered steel cantilevers—a lintel with a slice removed from its center) which frames a fully glazed circular court. The two rear, or nonpublic sides, feature rows of millionless windows, the whole vaguely reminiscent of a 19th-Century factory. Both the plan and the resultant knife-edge corners recall Pei's East Building at the National Gallery.

The abstracted "broken pediment" of the main entrance is visually disturbing; it comes off as a ponderous attempt to [News report continued on page 30]

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show that SOM has noticed the work of Robert Venturi and Charles Moore, but lacks those designers' wit and sensibility. In its Georgian formality, the city hall might be seen as a historicist nod toward a Palladian heritage—although the suggestion might equally be of a suburban Colonial lineage. Unfortunately, the Columbus City Hall is another less-than-first-rate design from a national firm foisted upon this idealistic town. [William Morgan]

William Morgan is a professor of fine arts at the University of Louisville, Ky.

Art and Architecture: Never the twain. . .?

Many of the nation's more prominent architects and artists got together in New York on March 27 to rehash their traditionally stormy relationship. An audience of about 350 attended the conference, sponsored by the AIA Committee on Design and the Skowhegan School of Painting and Sculpture.

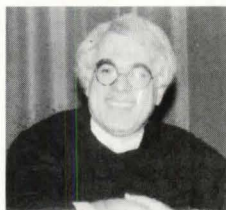
After opening remarks by the organizers, the cause of collaboration was given a boost by architect Charles Moore. The title of his talk, "Art, Craft, and Ornament," immediately identified the crucial mediating components that few of today's artists or architects wish to acknowledge. His slide survey of histori-



1



2



3



4

1 Charles Moore, 2 Red Grooms, 3 Peter Eisenman, 4 Richard Serra.

cal inspirations and current work was seasoned with typical Moore wit. One suggested aphorism: "A society that has lost its sense of the superficial has lost its sense of the deep."

Following that, a "dialogue" between two artists (without much exchange of views) delineated the two types that are at all concerned with architecture. Red Grooms represented the artists who take up architecture mainly as subject matter—for works that do not fit comfortably into real architecture. Richard Haas represents those who can and do accommodate their work to real buildings—so well that he has become a

favorite among architects; in his case, of course, the subject, too, is architecture.

Next came a panel of architects (Thomas Beeby, Peter Eisenman) and artists (sculptor Richard Serra, painter Frank Stella) plus a sculptor-turned-architect (James Wines of SITE), who were billed as "Looking for a Common Language." What most of them had in common—with moderator Rosalind Krauss, editor of *October*—was a tone of condescension: most were quick to tell all present that the subject had already been discussed too much, and to no good effect. Krauss opened by dismissing much of what had been shown up to then as "entertainment"—with some accuracy, though perhaps undeserved contempt. She singled out the historically inspired ornamental sculpture of Michael Graves's Portland Office Building (P/A, May 1980, p. 25) as betraying "loss of memory, rather than memory regained."

Wines, whose own work melds architecture with sculpture, expressed his scorn for the "puffy-looking sculpture in front of the rectilinear building." Serra spoke bitterly of his attempted collaboration with architects. Stella expressed satisfaction with what artists and architects have been accomplishing, separately.

Eisenman caustically dubbed this panel "the serious intermission" in the day's proceedings. His answer to the current quest for popular appeal in architecture was to recollect a walk [News report continued on page 34]

Photos: Sylvia Sarner

What do this Japanese restaurant, furniture store, and office building have in common?

Top — Kyoto Steak House — and right — Barr Office Building, both by Rossen/Neumann Associates, Southfield, Mich. Lower left — Art Van Furniture by Robert L. Ziegelman/Architects, Birmingham, Mich.



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Two additional levels gained by floating 300-ft office tower on stilts of steel.



Credits:

Owner: Chase Enterprises and Olympia & York

Architects: Irwin Joseph Hirsch & Assoc., Farmington, Conn.,
Buigas & Assoc. Architects, Miami, Fla.

Structural Engineer: Irwin G. Cantor, New York, N.Y.

Fabricator: Bethlehem Fabricators, Bethlehem, Pa., and Topper & Griggs, Inc.,
Plainville, Conn., A Joint Venture

General Contractor: E. I. Constructors, Inc., Milford, Conn. and Newark, N.J.

Building Facts: One Corporate Center, Hartford, Conn.

Total Area: 384,000 sq ft

Number of Levels: 16

Building Dimensions: 206 ft 8 in. x 116 ft 8 in.

Floor-To-Floor Height: 12 ft 4 in.

Floor-To-Ceiling Height: 8 ft 6 in.

Steel Supplier: 4,200 tons of ASTM A572 Grade 50 and ASTM A36 by Bethlehem

"Speed of erection and material cost savings are two of the reasons why we selected steel framing for One Corporate Center," says Irwin G. Cantor, project structural engineer. "Preliminary investigations indicated that steel's lighter

dead load would be advantageous in constructing this large-bay, 16-story building above an existing structure. And by using steel instead of concrete, we were able to build two additional levels."

One Corporate Center is Connecticut's second-largest rental office building. The top of the 384,000-sq-ft tower is approximately 300 ft above the existing five-level city parking garage. A two-level retail concourse, constructed above the garage roof, serves as the base upon which the new building is supported.

Legs of steel

The \$25 million tower, erected in the air rights space over the Hartford Municipal Parking Garage, is supported 75 ft above the ground on V-shaped steel stilts and a service core.

The V-shaped stilts are constructed from 14-in. wide-flange steel sections. Each steel leg, about 30 in. on a side, is wrapped in a stainless steel casing for architectural purposes.

"This unusual support system is designed to transfer the building's loads to the structural system of the garage," explains project architect, Irwin J. Hirsch.

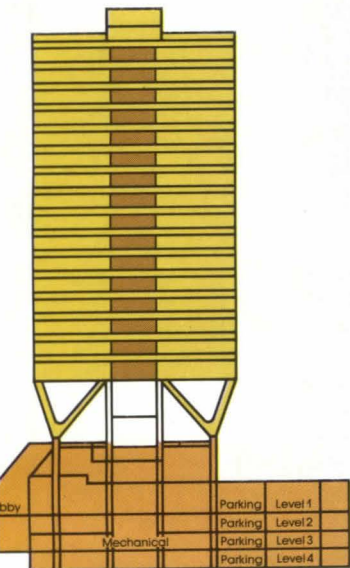
"In addition, the stilts allowed us to design the building's floors to be as column free as possible."

The support legs also balance the office's large external bay spacing of 41 ft 6 in. by 30 ft with the 30-ft-sq bay spacing of the existing parking structure. Lateral support is provided by the steel framing around the two elevator cores.

The fire-resistive floor system incorporates a 2-in. composite steel floor deck topped with 3¼-in. lightweight concrete supported on compositely designed filler beams.

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(Left)
The 16-story tower is supported 75 ft above the ground on V-shaped steel stilts and a service core. Large column-free bays, 41 ft 6 in. x 30 ft, provide optimum freedom of interior space arrangements.

(Below)
Structural steel's lighter dead load was advantageous in constructing the tower above the existing parking garage.



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through Paris that took in the Place Vendôme and the Palais Royale, sources of deeper satisfaction—places that would be ideal if only one could “get rid of the Parisians.”

Only Beeby, of this group, held any real hope for productive collaboration, if only artists and architects would abandon the notion that all of their work is “high art” and admit craftsmen to provide essential ornament. To Krauss's objection that requisite craft skills are no longer obtainable, he replied that restoration work is now sustaining them.

After this near consensus on the futility of the subject, the conference dispersed for five concurrent panels on such subjects as the roles of patrons and of educational institutions and the various types of collaboration, recalled by those who have been through it. In a final regathering, where moderators of these panels presented summaries, all reported some degree of hope. Art consultant Nancy Rosen made perhaps the most constructive proposal with the urging, from her panel, that both professions simply learn more about each other's work. Whether accomplished through informal meeting, through reading, or through looking, such real understanding could make future conferences like this one more productive—or ultimately superfluous. [JMD]

West Week '82

Over 10,000 visitors packed the Pacific Design Center in Los Angeles for West Week '82, March 19–21, billed as “The Market Event of the West.” The theme of this year's event was “Gateway to the Pacific,” and the unusually brilliant weather cooperated to perfection. Cesar Pelli's Blue Whale was crowded with interior designers and architects from around the country who visited manufacturers' showrooms and attended lectures and discussions by architects and furniture designers.

On Thursday, the 18th, The E.F. Hauserman Co. unveiled its new showroom, a collaboration between Vignelli Associates and artist Dan Flavin. The Vignellis' arrangement of Hauserman's full-height office panels was articulated by Flavin's fluorescent light tubes; a section of the installation will be donated to the new Museum of Contemporary Art.

On Friday and Saturday, design was Topic A, with Jean-Michel Cousteau delivering the keynote address on under-sea environments. Back on dry land, in a large striped tent outside the PDC, Anthony Lumsden, David Martin, Arthur Gensler, and Gene Summers joined Michael Graves, Mario Bellini, Massimo and Lella Vignelli, Charles Gwathmey and Robert Siegel, Don Chadwick, Richard Schultz, Hazel Siegel, Doug Ball, Bill Stephens, and many other luminaries of architecture and furniture design to participate in panel discus-

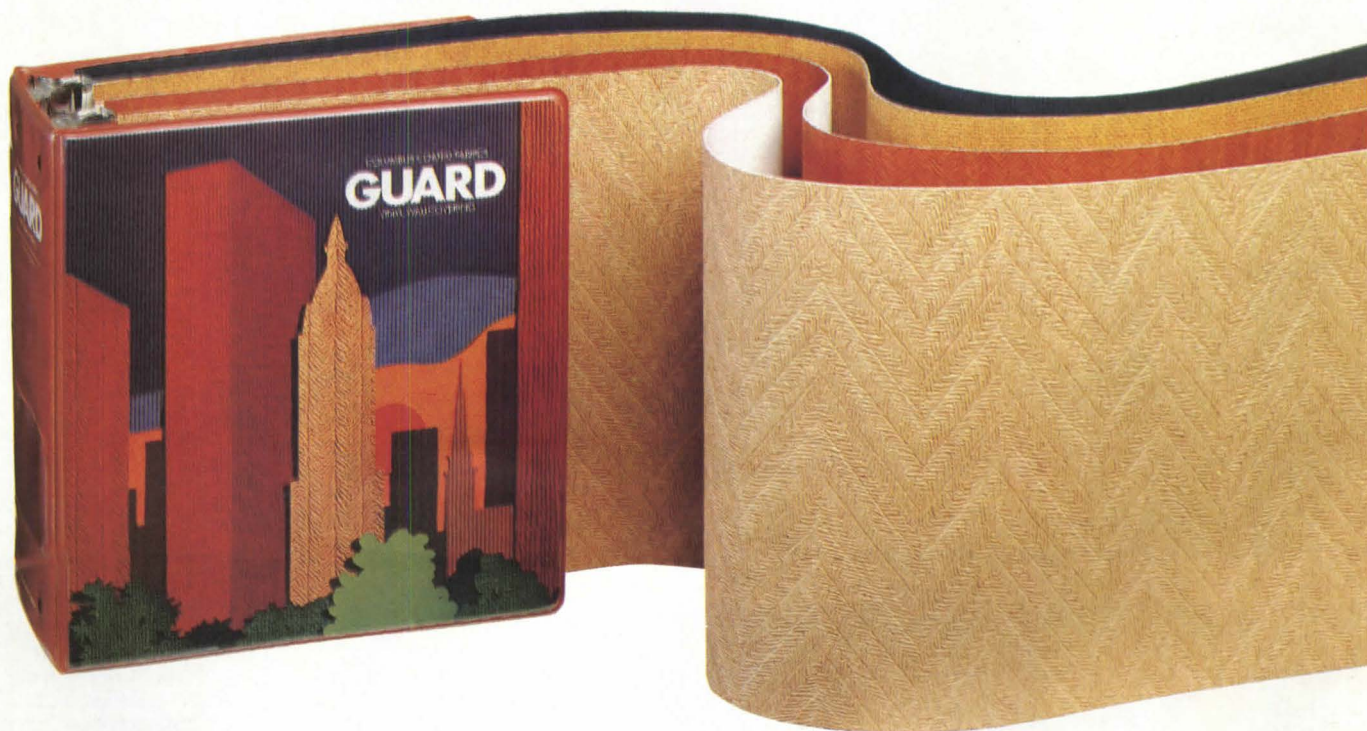
sions directed by Richard Saul Wurman and sponsored by PDC/Two, the contract manufacturers' organization.

As for audience participation, however, the real action was in the individual showrooms, where all the guest designers were available for informal discussion. On one afternoon, Mario Bellini was seen at AI's showroom engaged in spirited discussion with visitors, while Michael Graves was mobbed by fans waiting for him to autograph copies of Sunar's poster showing his new chair design—which will make its debut at that market event of the Midwest, NEOCON, in June. [PV]

NEOCON 14: More space, richer programs

Visitors to the Merchandise Mart in Chicago during NEOCON 14 (June 13–18) will find another whole floor of the mammoth structure devoted to contract interior products. According to NEOCON officials, this means another 2300 ft of corridor for architects and designers to traverse. The good news is that corridors on the new eighth floor have been redesigned by Interiors Incorporated of Chicago with neutral-colored surfaces, soft light from black egg-crate ceilings; tenants have been encouraged to line the subdued passages with well-illuminated glassy fronts.

Scheduled over a full four-day period, NEOCON's program of seminars includes more prominent architects and critics than ever before—among



them Arata Isozaki, Paolo Portoghesi, Elissa Aalto, Edmund Bacon, and Paul Goldberger. (See detailed program, p. 64.) Again this year, winners of P/A's International Furniture Competition (pp. 158-169) will be displayed at NEOCON.

In welcome recognition of Chicago's architectural riches, NEOCON planners this year are offering weekend tours of buildings and interiors; for the truly footsore, a Friday afternoon boat tour is planned. The Museum of Science and Industry will cooperate with an extensive show of works by Louis Comfort Tiffany. [JMD]

Aspen subject for 1982: the professional

George Nelson, chairman of this year's International Design Conference at Aspen (June 13-18) should know a lot about professions; he is identified in conference releases as an architect, designer, educator, and consultant, but we know he has been an author, critic, and journalist, as well.

"Professionalism in the U.S.," says Nelson, "was a creation of the 19th Century." It provided a major route for upward mobility in society and shaped our universities as constellations of specialized schools. This Aspen Conference, Nelson hopes, will highlight the relationship of the professions to mass society and its educational institutions and draw parallels between disparate professions.

Among the participants announced will be historian Daniel Boorstin, author Michael Crichton, sociologist Richard Peterson, architect Arthur Gensler, designers Ivan Chermayeff, Niels Diffrient, Michael McCoy, Paul Rand, and Henry Wolf. Those whose professions are harder to pin down include: Max de Pree, head of Herman Miller; Edward Logue, of many redevelopment efforts; Jane Thompson, former editor and VP of Benjamin Thompson & Associates, Architects.

Art & Architecture, British style

Art & Architecture was the theme of an ambitious series of events organized during February by the Institute of Contemporary Arts in London, the Royal Institute of British Architects, and other art institutions.

Such interprofessional collaboration alone makes headlines in Britain where, to quote architect president of the Royal Academy, Sir Hugh Casson, "Architects are united only by their hatred towards artists," or where historian Kenneth Frampton could start his keynote address to the conference by asking "... but why return to this unpromising scene?"

Such lack of illusions was, perversely, one of the refreshing features of the whole enterprise. Bleak may be the scene in Britain where, at least outside the New Towns, few artists ever receive commissions to work on buildings or

urban spaces; yet the enthusiasm to recreate the age-old partnership in a new spirit was unmistakable among the participants.

It was a multiple event: three evening seminars, one week-end conference, and a rather low-key exhibition entitled "A New Partnership," displaying five specially commissioned works of collaboration, including one by the British sculptor Tony Caro working with Canadian architect Barton Myers on designs for the Los Angeles Central Library.

Several resolutions were passed, subject to further revision: among them, that provision be made, at the national and local levels, for a percentage of the building costs to be set aside for art (though this elicited fears of "committee art"); that the government be encouraged to revise art education in secondary schools to develop a wider understanding of the urban environment; and that the "blindness of art colleges to environmental needs" be officially deplored.

Following the conference, an Art & Architecture action group was formed; its aim: "to enrich the environment through the collaboration of artists, craftspeople, architects, patrons, planners, and the building industry, in sympathy with the needs of the people." [Leonie Cohn]

Leonie Cohn, a former producer of television programs on art and architecture for the BBC, works for Pidgeon Audio Vision.
[News report continued on page 38]

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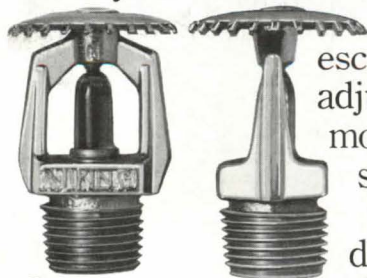
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Learning from overseas

Speaking with American architects who have worked abroad recently on energy-related projects reminds one immediately of the rapt attention given foreign buildings and cities more than a decade ago, when urban design and regard for pedestrians seemed at the forefront of U.S. design concerns. Now, with energy a leading issue, some architects are rediscovering virtues in examples from other places, for many of the same reasons that drew acclaim before the onset of the energy dilemma. The lessons learned seem to go well beyond energy.

"If we're serious about energy, then community-scale design is *the* issue," says Californian Peter Calthorpe, who toured Milton Keynes and other British new towns. The U.S. is too concerned with the latest aspect of Post-Modernism, he believes, while leading British designers debate over matters of greater substance. "Architecture and urban design are such important concerns there that they've been taken out of the private sector . . . they are still concerned with all of the things we've abandoned, like minimizing the automobile's impact." Calthorpe acknowledges that English failures have sometimes outstripped successes, "but at least they are deeply committed to learning from mistakes."

New Mexico architect Edward Mazria places European energy efforts in buildings about five years behind U.S. initiatives, noting that France "is just now getting off the active solar energy kick." From his travels in France and Spain, Mazria believes, however, that Europeans start from a less wasteful position, even as they must count on less help from the sun.

Many conclude that Europe lags the U.S. in development of simple, effective building products like movable insulation for windows. They also see a growing market abroad for U.S. design expertise, according to Pittsburgh's Vivian Loftness, who helped Greek architects design a "solar village" near Athens.

UCLA's Murray Milne, who toured Japan and Great Britain, regards cultural differences as a critical factor in approaches to energy: "The Japanese heat people, not spaces. As a result, their energy use is very low." New Japanese developments lack the responsiveness of traditional buildings, but Milne still finds evidence of deeply ingrained sensitivity to the islands' varying climates.

Kelbaugh summed up a response noted by many others: "The Europeans are amazed by our freedom to experiment, to build, test and then try again." The sense gained is that Europe and Japan, despite well-financed and highly scientific programs, cannot rapidly internalize the kind of useful experience produced by the pioneering energy enthusiasts that abound in the U.S.

Failures—or even partial successes—could doom a course of research abroad, while here such results have often renewed commitments and spurred subsequent efforts. "A Steve Baer could not happen in Europe," said one architect who had lectured in Germany.

Perhaps the continuing energy challenges will be a banner under which we will renew our commitment to improve the quality of built America on all levels, turning again to instructive examples from abroad. [Thomas Vonier]

Fazlur Khan: 1930–1982

Fazlur Khan, renowned structural engineer and general partner of Skidmore, Owings & Merrill, died on March 27.

Born in Dacca, Dr. Khan earned his graduate degrees in the United States, at the University of Illinois. He joined SOM, Chicago, in 1955, where he became a partner in 1970.

He achieved international distinction for his designs of the innovative bundled tube and long-span structural systems, and was responsible for the engineering of many prominent buildings, including the Sears Tower and the John Hancock Center in Chicago, the Spectrum Arena in Philadelphia, and the Haj Terminal in Jeddah (P/A, Feb. 1982, pp. 116–122).

[News report continued on page 46]

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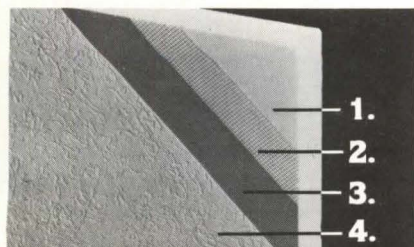
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Pencil points continued from page 23

(linear in configuration, like the Corderia).

¶ *The Strada Novissima* will be updated.

¶ Entries by four local architects—Marc Goldstein of SOM, William Turnbull, Mark Mack and Andrew Batey, and Dan Solomon—will form a central "marketplace."

¶ The original 50 exhibits will be shown on axis in the rear.

¶ An open competition has been held for the entry gate to the grounds (prize: \$10,000).

¶ Winner: Crosby, Thornton, & Marshall (Don Crosby, principal).

¶ Advisors: Paolo Portoghesi, Vincent Scully, Robert Stern, Charles Jencks.

¶ Possible future hosts: Caracas; Tokyo.

Skywalk study

Deficiencies in inspection procedures were found in a three-month study of Kansas City's administration of its construction guidelines.

¶ The study was commissioned by the Kansas City Council after the skywalk collapse in the Hyatt Regency Hotel last July (P/A, Oct. 1981, p. 33).

¶ The review, conducted by experts from the International Conference of Building Officials, found that the city's Codes Administration Division rarely requires structural calculations for a project, did not review all design changes, and is understaffed.

Skywalk report

Critical connections in the two hotel walkways that collapsed were capable of supporting less than one-third of the load expected to be carried by a connection designed under the Kansas City, Mo., building code, according to a report issued in February by the Commerce Department's National Bureau of Standards.

¶ First, the "connections as initially detailed and approved for construction provided a capacity far below the capacity required to satisfy the Kansas City Building Code";

¶ Second, a change in the supporting hanger rod arrangement "essentially doubled the load to be transferred" by the connections, "thus further aggravating an already critical situation."

School renamed

In gratitude for a \$2 million gift by builder-architect Irwin S. Chanin, The Cooper Union for the Advancement of Science and Art in New York has renamed its school of architecture.

¶ It is now the Irwin S. Chanin School of Architecture, one of the three Schools offering degrees at the privately endowed, tuition-free college.

New certificate program

The University of Cincinnati's College of Design, Architecture, and Art and its McMicken College of Arts and Sciences are jointly sponsoring a new certificate program in Historic Preservation Studies.

¶ The program will be chaired by Samuel V. Noe, professor of urban planning and design.

Brothers win Japanese competition

Andy and Peter Pressman, an intern archi-

tect and Princeton University social science school student, respectively, have won first prize (1.5 million yen, or \$6500) in an international competition sponsored by Misawa Homes and the Building Center of Japan.

¶ The winning entry is a concept for interior renovations based on the social meanings of space for various user groups.

Fogg annex

Latest report: The Stirling-designed addition to Harvard University's Fogg Art Museum will be built.

Meier for museum addition

Richard Meier has been chosen to design the \$5 million addition to the Des Moines Art Center.

¶ New construction (exhibition space, storage area, and administrative and library facilities) will add 32,000 sq ft of space to the 65,000 sq ft of existing space (by Eliel Saarinen, 1948, with an addition by I.M. Pei, 1968).

¶ Renovation will involve 11,000 sq ft of existing space.

More Exedra

Exedra Books, the young Chicago publishing house that came into existence grandly with its limited folio edition of Schinkel's *Sammlung* (P/A, Oct. 1981), has several other quality productions planned:

¶ A studio edition of Schinkel's *Sammlung*, in a reduced, 9" x 12" format, will be available in June;

¶ Exedra is distributing *Daidalos*, the new bilingual (English/German) architectural quarterly from Munich;

¶ it is distributing a new English edition of the 1940 *Byggmastaren* monograph on *The Early Works of Erik Gunnar Asplund*, as well as

¶ the first monograph in English on Peter Behrens, by Alan Windsor.

Posthumous Mies

An office tower designed by Mies van der Rohe in the 1960s for London's City may yet be built. Unfortunately, several Victorian structures still stand on the proposed site.

¶ Opinion is divided between

¶ those who welcome a Mies building anywhere in England,

¶ and those who most decidedly do not. A public inquiry is scheduled for September.

Royal Gold Medal

Architects in Britain were amazed to hear that Berthold (Tolek) Lubetkin had agreed to accept the Royal Gold Medal for Architecture 1982, presented by the Royal Institute of British Architects.

¶ Lubetkin is best known for his Penguin Pool at the London Zoo (1938), his own house at Whipsnade, and apartment buildings at Highgate (1933).

Not wrong side up

Embarcadero Center, the five-block complex in San Francisco designed by John Portman, celebrates its Grand Completion May 19.

¶ The complex includes four office towers, each with three shopping levels, and the sidewise pyramidal Hyatt Regency Hotel, [Pencil points continued on page 42]

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Pencil points continued from page 40

all connected by landscaped pedestrian walkways set over city streets.

NIBS chairman

Jasper S. Hawkins, FAIA, principal of the Phoenix and Los Angeles firm of Hawkins & Lindsey Architects, has been elected chairman of the National Institute of Building Sciences.

Largest in largest

The world's largest clear-span aluminum dome, the 415-ft-diameter Temcor Aluminum Dome, in a channel off Los Angeles, received its new tenant in February, the world's largest airplane, the Howard Hughes Flying Boat, a.k.a. the Spruce Goose.

¶ *Exterior panels and framing of the 130-ft-high dome have a baked-on, fluoropolymer finish.*

Governments, rugs

The government may be pulling the rug out from under the feet of developers in two cities.

¶ *In New York, the Koch administration has asked the developers of Lincoln West, the proposed luxury housing and hotel complex adjacent to the Hudson River on Manhattan's West Side, to withdraw their application to build.*

¶ *Reason: the city wants to consider an even larger plan incorporating a rail freight facility to benefit manufacturers.*

¶ *The striking design, with eight towers in a park, by architects Rafael Viñoly, the Gruzen Partnership, Cesar Pelli, Edward Larrabee Barnes, Kohn Pederson Fox, I.M. Pei & Partners, Mitchell/Giurgola, and Richard Meier, has been in the works for almost two years.*

¶ *And in DC, the future of the SOM-designed Metro Center mixed-use development is in doubt.*

¶ *The Oliver T. Carr Co. has an option on the land, but the DC government suddenly wants to raise the price.*

God Bless America

A flagpole, a heroic statue, and an inscription including the words "God Bless America" have been agreed upon as possible additions to the otherwise starkly simple Vietnam veterans memorial.

¶ *However, the final design still must be approved by the Commission on Fine Arts, the National Capital Planning Commission, and James Watt.*

L.A. School saves

Salvation is near.

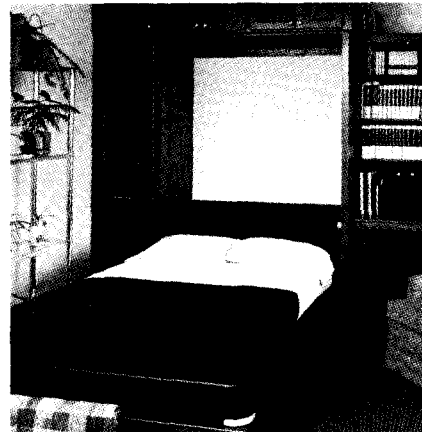
¶ *A new group known as the L.A. School hopes to demonstrate to L.A. how its members can improve the city.*

¶ *The members will talk, hold competitions, suggest urban interventions, give good architecture more exposure; in short, promote themselves.*

¶ *Catalyst is the omnipresent Charles Jencks.*

¶ *Members are Roland Coate, Peter de Bretteville, Craig Hodgetts, Robert Man-*

[Pencil points continued on page 44]



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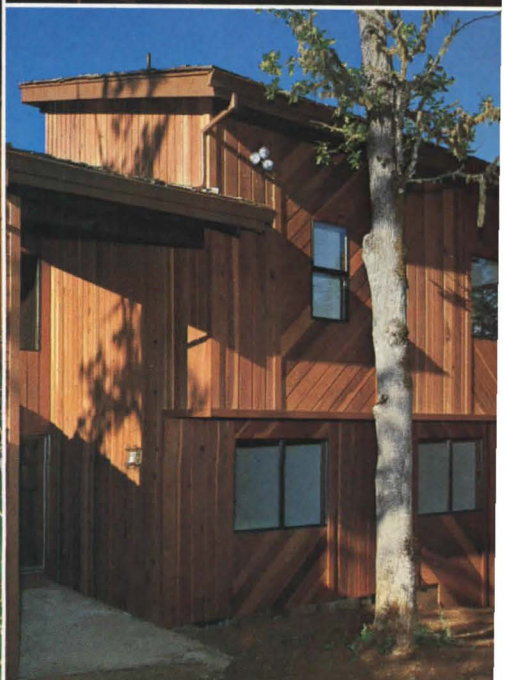
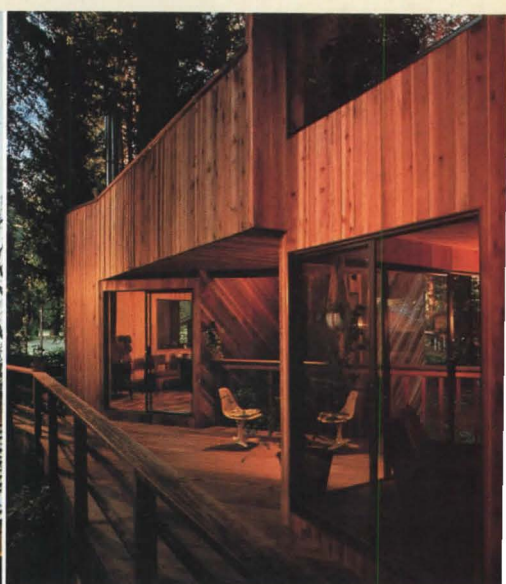
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gurian, Thom Mayne, Michael Rotondi, Eric Moss, Tim Vreeland, Tony Lumsden, Frank Gehry, Charles Moore, and Coy Howard.

¶ Sponsors are Rob Maguire, Gene Summers, Richard Koshalek and Pontis Hulten, and Harvey Perloff.

Faking the White House

White House façades, stage-set style, will be set up outside of Washington to train new Secret Service agents learning to protect the President.

¶ The White House façades will cost \$381,000, and there will also be a fake Blair House costing \$56,000.

¶ Façades have been used for 20 years to train police recruits: a shopping mall, a hotel, a barber shop, for example, exist for practicing security measures.

Sign of the times

Advertising copywriters are keeping up with architectural jargon:

¶ Swanke Hayden Connell's Seaport Plaza in New York's South Street Seaport area is being advertised as "New York's First Contextual Office Building."

More signs

Our Texas sign-spotter tells us of Houston's airport terminal display panel:

¶ "Houston, the capital of Progressive Architecture." Haven't they heard about Stamford, CT?

Chicago show

The Chicago Architectural Club is planning a juried exhibit at the Art Institute, beginning August 4.

¶ All Club members can submit.

¶ All submissions will be included in the show catalog, volume 2, 1982, of the Club's Journal.

¶ Jury members include Peter Eisenman and Evans Woollen. James Stirling, invited, declined.

Request for letters, Portland

A request for letters of qualification to design the Portland Center for the Performing Arts has been released.

¶ The project will include a 2750-seat concert hall, a 1400-seat theater, and a 450-seat Showcase theater.

¶ The 1927 Paramount Theatre, designed by Rapp & Rapp, Chicago, will be renovated to accommodate the concert hall.

Semifinal sculptors

Five semifinalists have been selected from among over 100 artists in the competition for a \$200,000 outdoor sculpture to be set three stories above the Portland Public Services building's Fifth Avenue entrance, ¶ winner to be selected this month.

Stone awards

Albert Kahn's Fisher Building, Detroit, completed in 1928, and the Nebraska State Capitol in Lincoln have won the Building Stone Institute's 1982 Tucker Awards for buildings over 25 years old.

¶ Fay Jones & Associates' Thorncrown Chapel in Eureka Springs, Ar, has won the Tucker Award for nonresidential buildings completed within the last five years;

¶ and Peter G. Rolland & Associates' landscaping for the IBM Management Development Center in Armonk, NY, has received the Tucker Award.

Arab Institute in Paris

A design by French architect J. Nouvel has been selected for the 130,000-sq-ft Arab World Institute, to be located adjacent to the Seine, facing the Boulevard Saint Germain.

¶ Six other architects, including Henri Ciriani, competed for the commission.

¶ The Institute will include a museum area, a library, and an auditorium.

Metric drive: Canada ahead

As the U.S. metric conversion languishes (the Metric Board is slated for abolition in September), Canada's pushes ahead.

¶ Canada has been reporting temperatures in centigrade for seven years, reading distances and speed limits on road signs in kilometers for five years, buying gasoline in liters for four years, and will soon be buying food in grams and kilograms.

¶ Most public buildings in Canada are designed using metric dimensions, and so is some of the housing, especially in the West.

¶ Is metric conversion becoming inevitable for the U.S.? This is the theme of the American National Metric Council's 1982 annual conference, being held May 3-5 in Washington.

Finally, A.A. grants

The British government has finally awarded mandatory grants for students at London's Architectural Association. Until now it was the only major British school without such status, and the architectural community has been trying to achieve this for years.

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Calendar

Exhibits

Through May 16. America's Architectural Heritage. Landmarks Foundation of Montgomery, Montgomery, Al. Also: California State College Library, San Bernardino, Ca.

Through May 23. "Shelter: Models of Native Ingenuity." The Katonah Gallery, Katonah, NY.

Through May 28. Toward a Modern (Re)construction of the European City: Four Housing Projects, by Rem Koolhaas and Elia Zenghelis. Institute for Architecture and Urban Studies, 8 W. 40 St., New York.

Through May 29. Lawrence Halprin: Recent Projects—Design Sketches. Philippe Bonnafont Gallery, 2200 Mason St., San Francisco.

Through June 29. Giorgio de Chirico. Museum of Modern Art, New York.

Through July 4. Edward H. Bennett, Architect and City Planner: 1874–1954. The Art Institute of Chicago, Michigan and Adams, Chicago.

May 7–June 19. Buildings on Paper: Rhode Island Architectural Drawings, 1825–1945. Brown University's Bell Gallery, Rhode Island Historical Society, and Rhode Island School of Design Museum of Art.

May 11–June 12. Paul Rudolph: Architectural Drawings. Kelmscott Gallery, 410 S. Michigan Ave., Chicago.

May 16–Aug. 22. Mies van der Rohe: Barcelona Pavilion and Furniture Designs. Neuberger Museum, College at Purchase, NY. Also: **Through June 20,** Robert A.M. Stern: Modern Architecture after Modernism.

May 20–July 25. International Exhibition of Architecture from the recent

Venice Biennale. Pier Two, San Francisco.

May 22–June 30. New Chicago Architecture. Padiglione d'Arte Contemporanea, Milan.

May 27–Oct. 3. Grand Central Terminal: City Within the City. New York Historical Society, 170 Central Park West, New York. Also: **Through June 1,** The Mayor's House: Gracie Mansion and Other Dwellings.

Competitions

May 31. Submission deadline, The Monroeville Area Civic Center Architectural Competition. Contact Gary Naktin, Westinghouse Building, Gateway Center, Pittsburgh, Pa 15222 (412) 255-3800.

June 1. Application deadline, Educational Facilities Laboratories/Academy for Educational Development, New York State Council on the Arts Architectural Fellowship Program; must be New York State resident. Contact Nancy Morison Ambler, Architectural Fellowships Coordinator, EFL/AED, 680 Fifth Ave., New York 10019 (212) 397-0040.

June 1. Registration deadline, design competition in conjunction with 7th National Passive Solar Conference. American Section/International Solar Energy Society (AS/ISES) in cooperation with *Progressive Architecture*. Contact Design Competition, Box 541, Brattleboro, Vt 05301 (802) 254-2386.

June 1. Entry deadline, Sixth Annual Lighting Design Competition. Contact Len Lirtzman, Lighting Products Division, McGraw-Edison Company, 400 Busse Rd., Elk Grove Village, Il 60007 (312) 956-8400.

June 30. Registration deadline, Lafayette Square Design Competition, St. Louis. Entry deadline Aug. 30; entry fee \$25. Contact Lafayette Square Restoration Committee, 2023 Lafayette Ave., St. Louis, Mo 63104.

Conferences, seminars, workshops

May 17–19. Conference on Technology and Design of Barrier-free Environments for Disabled Persons. Mount Ste. Marie, Quebec. Contact T.M. Ogrodnik, National Health & Welfare, Health Facilities Design, Ottawa, Ontario, Canada K1A 1B4 (613) 996-9245.

May 21–22. Wind-power Opportunities, Northglenn, Co. Contact Faye Mauger, Wind Energy, Inc., (303) 620-9179. Subsequent date: **June 25–26,** Northglenn, Co.

May 29–June 2. Born Again Buildings, The Royal Architectural Institute of Canada 75th Annual Assembly. Westin Hotel, Winnipeg, Manitoba. Contact Sharon Chaulk, RAIC, 328 Somerset St. West, Ottawa, Ontario, Canada K2P 0J9 (613) 232-7165.

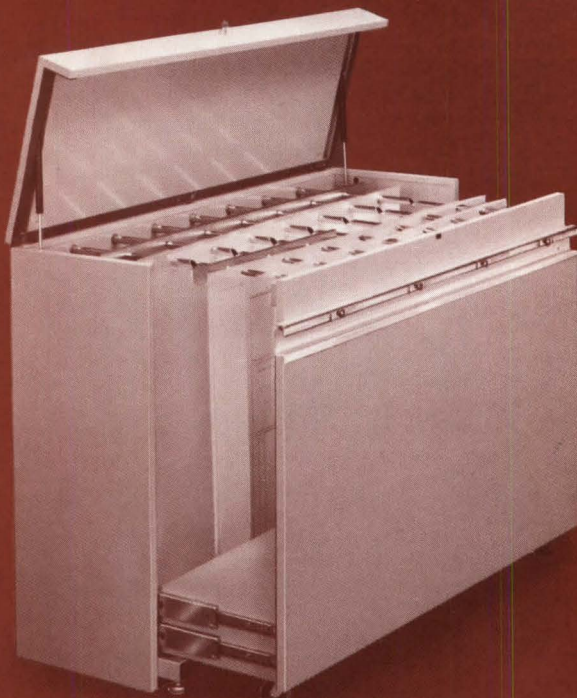
June 3–6. Olmsted and the Historic Landscape: Revisited and Renewed. Midland Hotel, Chicago. Contact Friends of the Parks, 53 W. Jackson Blvd., Chicago, Il 60604 (312) 922-3307.

June 6–10. AIA Annual Convention, "A Quest in Time." Honolulu, Hi. Contact AIA, 1735 New York Ave., NW, Washington, DC 20006.

[News report continued on page 50]

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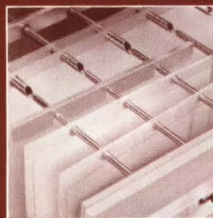


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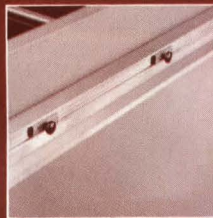
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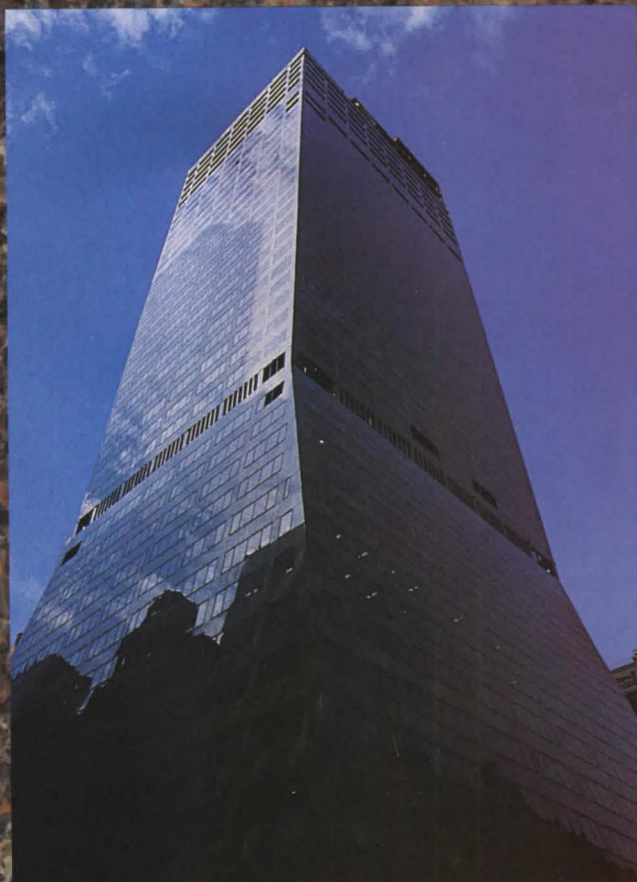
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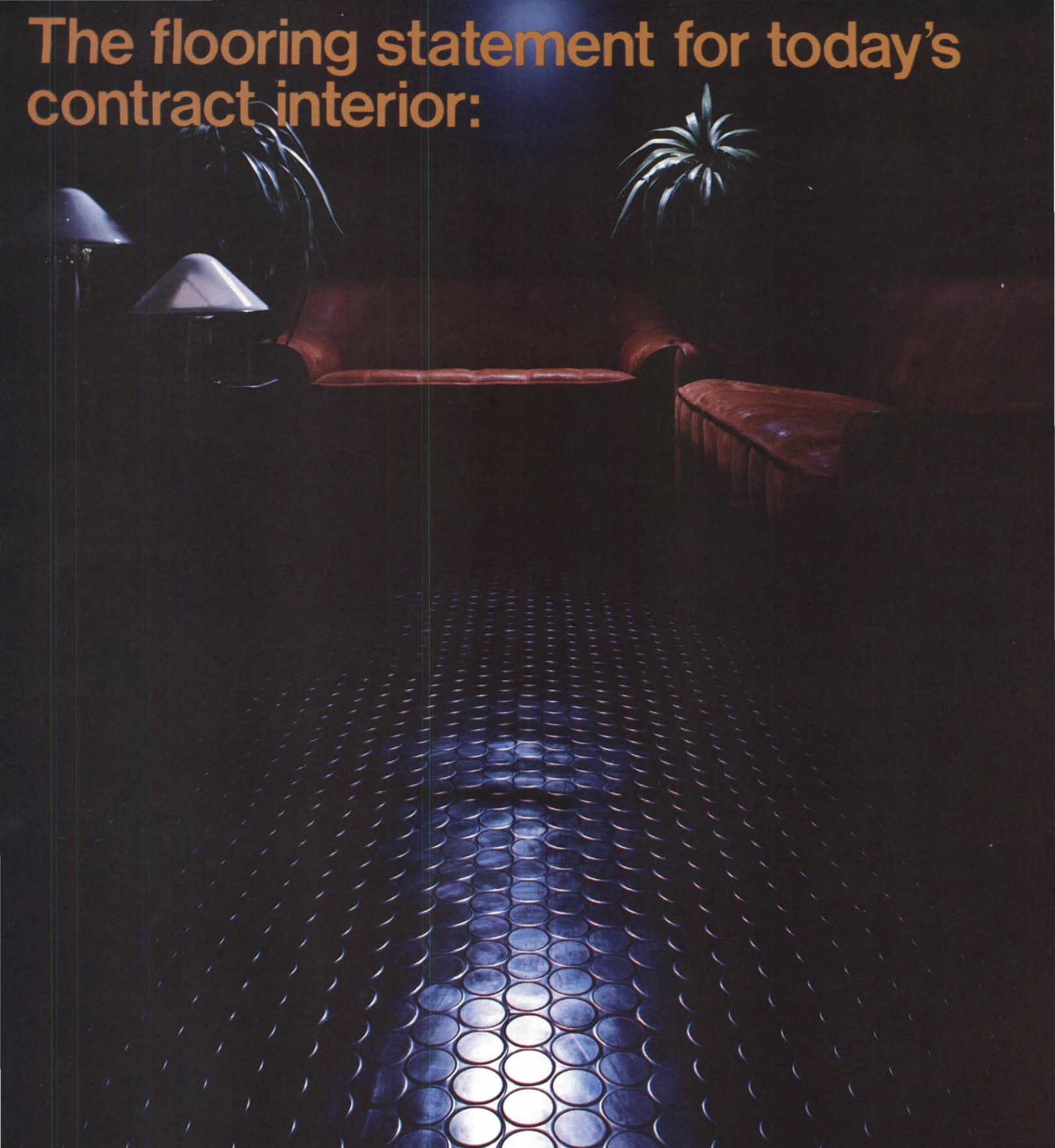
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Perspectives

Resurgens Terminus: MARTA

Atlanta, or Terminus, as it was originally named, has been a transportation hub since it was located in 1837 as the intersection of the railroads connecting New York to New Orleans and Chicago to Florida. In fall 1981, four stations of the North-South Line of the rapid rail section of the Metropolitan Atlanta Rapid Transit Authority (MARTA) opened for service, completing the latest intersection of transportation in Atlanta. The East-West Line has been fully operational for over two years.

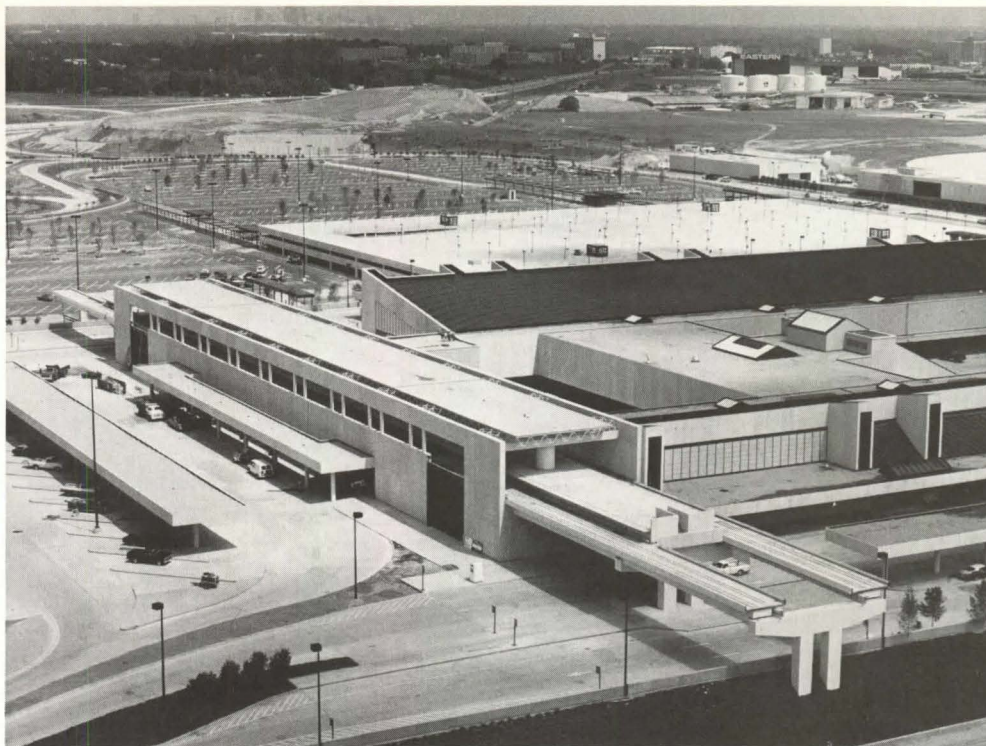
MARTA's rapid rail system, modeled after San Francisco's BART, employed BART's engineers, Parsons, Brinkerhoff, Tudor and Bechtel to design it and all but Bechtel for its implementation. With a few exceptions, there is a different architect subcontracted for each of the projected 40 stations along the 53 miles of the originally proposed system.

The rail stations along the four branch lines have been located either to provide access for population centers or to stimulate economic growth. Feeder buses draw riders from dispersed suburbs.

Development in response to MARTA has in several cases predated the actual opening of the rail line. The peripherally located Peachtree Summit Building, for example, by Toombs, Amisano & Wells, Atlanta, was completed in 1976, remained virtually empty until MARTA moved its administrative offices there in 1978, and was finally linked to downtown by the opening of the Civic Center Station by Garland Reynolds, Decatur.

The Airport Station by Stevens & Wilkinson, Smith, Hinchman & Grylls, and Minority Architects & Planners, Atlanta, was completed along with Hartsfield International Airport last year, but will not become the final stop on the South Line until sometime in 1983.

In several instances lobbying groups affected the location or the very existence of a station. The Decatur Station by Stevens & Wilkinson, Atlanta, was relocated from its original site on the edge of Downtown Decatur to run through the center of downtown in an effort to counter the economic decline incurred by the regional shopping centers. The developers of the Omni Complex in At-



Gabriel Benzur



Gabriel Benzur



Jon Carlsten



Jon Carlsten

Hartsfield Atlanta International Airport MARTA station (top); Martin Luther King, Jr., station (middle); Civic Center station (above); and Five Point station interior with existing Eisenman Building façade (right).

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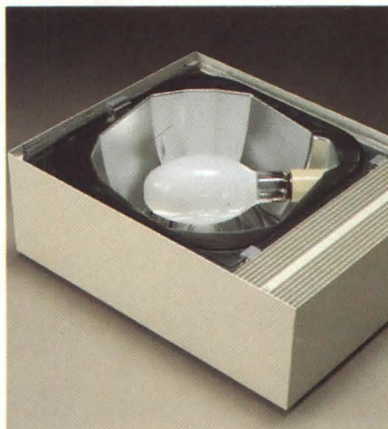
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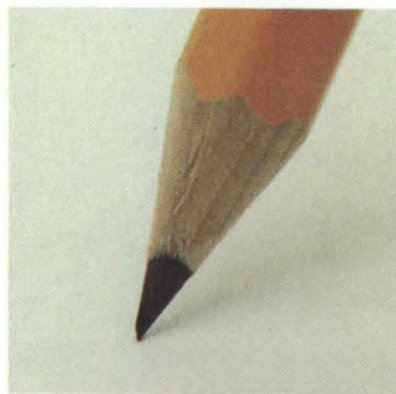


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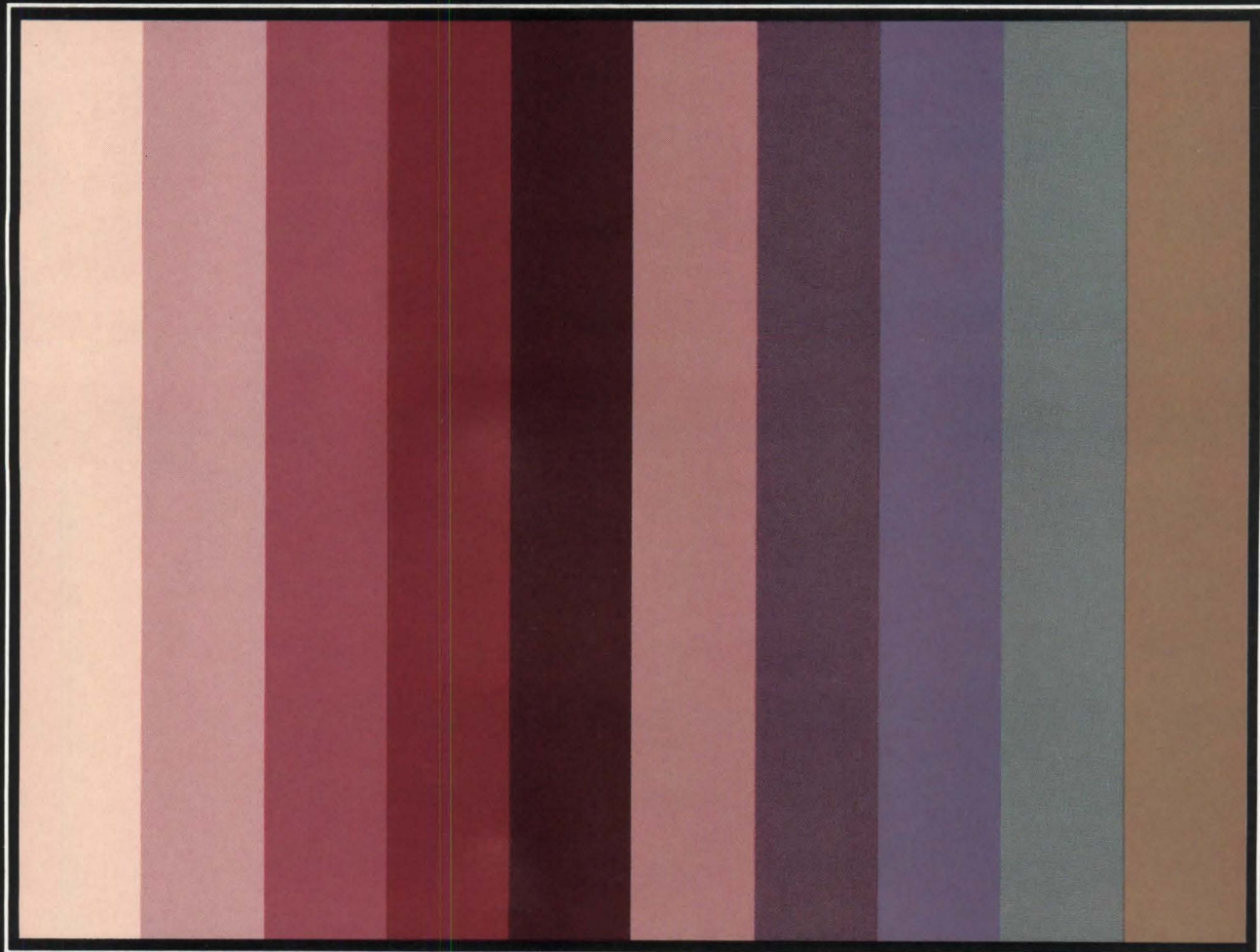
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lanta (Architects: Cooper, Carry) lobbied for and got a new station barely a full train length away from the Five Points Station, the main interchange of the system.

While their response has been positive, too often the public has been forced to assume an adversarial role to prevent MARTA from "... destroying the village in order to save it ...," paraphrasing a military commander during the Vietnam Era. Large areas of old and historically significant portions of Downtown Atlanta were cleared with little effective opposition for the coming of the rapid rail line. John Portman lent his influence to the merchants along Peachtree Street to have MARTA tunnel instead of "cut and cover," which would have effectively destroyed the merchants' commerce for several years if not permanently.

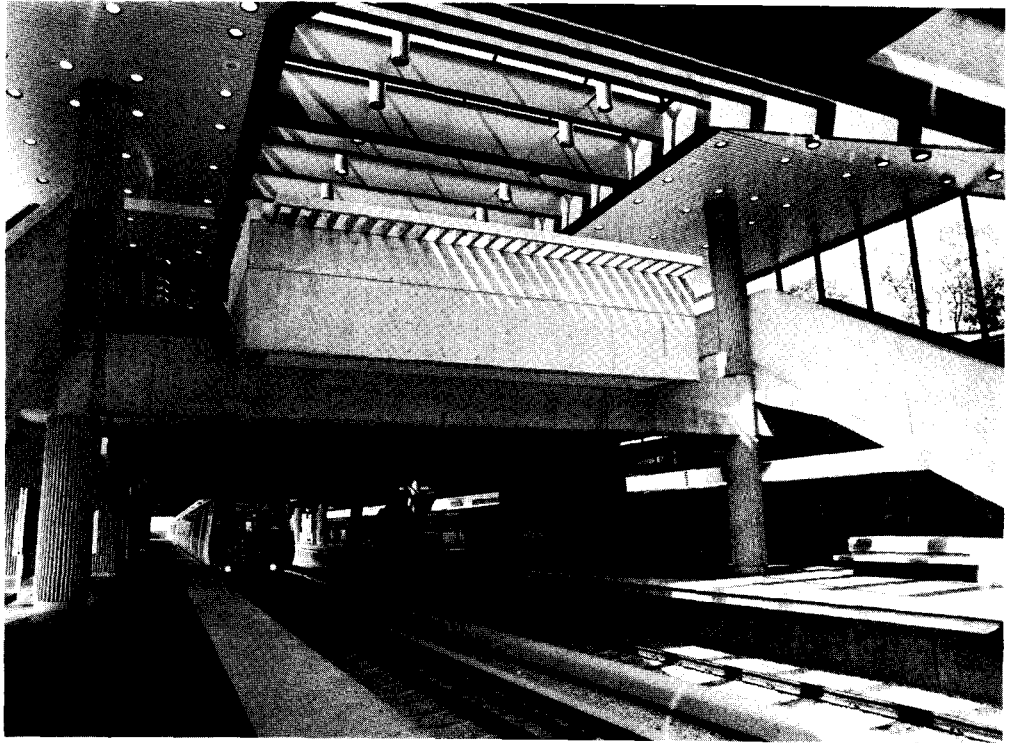
Inman Park, one of Atlanta's oldest suburbs, fought the very existence of their station, opposing it as an unwanted magnet for commuter traffic from the newer suburbs through their old suburb. They got their unwanted station with a few grudging and poorly executed architectural features that are supposed to relate the station (Pringle Patrick Architects, Atlanta) to this late 19th-Century community.

With the exception of the initial influence that several architects (Cecil Alexander, FAIA, and Richard Aeck, FAIA, to name but two) had upon the development of rapid transit in Atlanta, the role of the architect in the design of MARTA has been one of visually rationalizing what had already been designed by the planners, engineers, and politicians: giving visual expression to superhuman forms often looming many stories above the ground (example: the Martin Luther King, Jr. Station by Aeck Associates and Smith Reynolds & Hills, Atlanta); and providing a dramatic backdrop for public art or a relic of old Atlanta (example: the relocation of the Eisenman Building façade, by W.T. Downing in 1900, inside of the Five Points Station by Finch-Heery, Atlanta). All too often the architects seem to have succumbed to the temptation to use every new material available.

In a few instances the architects acknowledge the engineering of the system and celebrate it with simple expression. The Avondale Station by Miller, Waltz Diedrich, Atlanta, is the best example of this straightforward approach.

If Atlanta can afford to finish MARTA, the rail system will offer a fine opportunity for the economic restructuring of the city and for the inevitable re-creation of residential concentration along the MARTA lines. Current oil glut or not, the conservation of our energy resources will force us to consolidate our habitat. MARTA can provide the linkage for Atlanta and may also provide a role model for other metropolises to follow. [Jon Carlsten]

[News report continued on page 56]



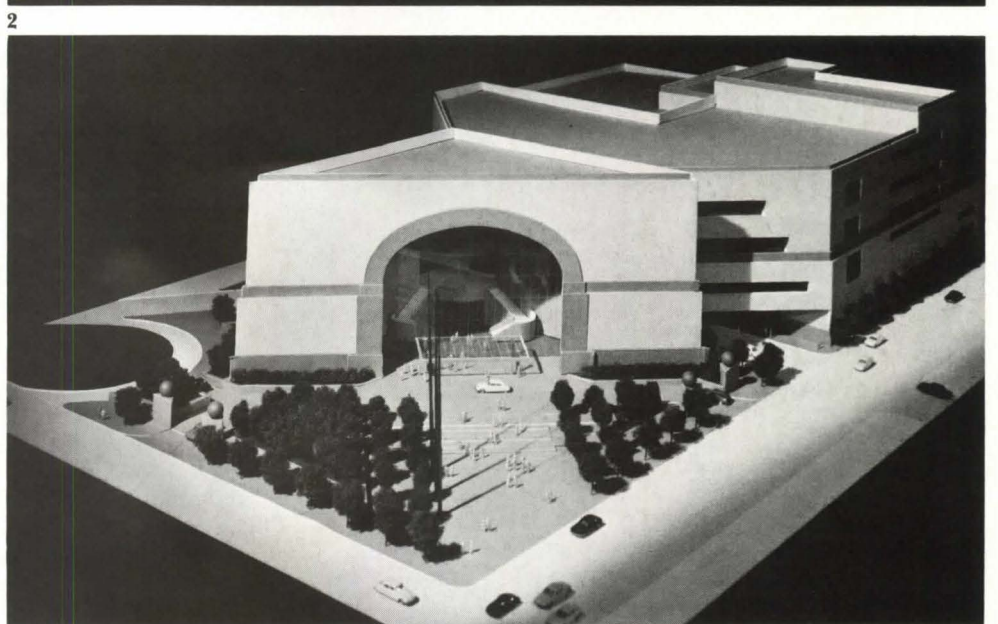
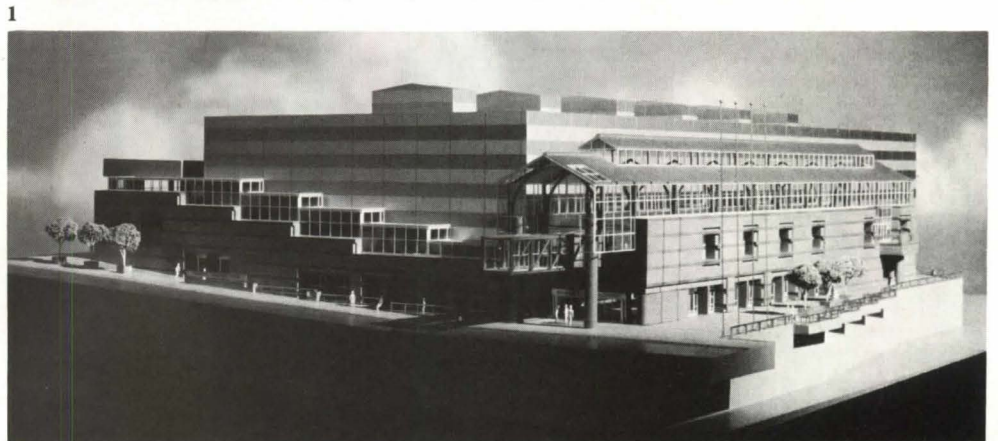
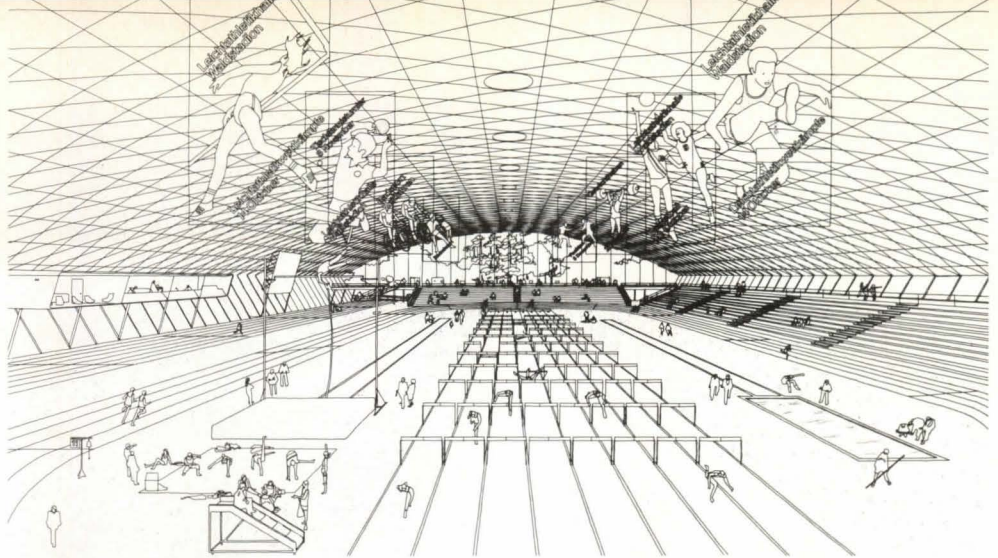
Avondale station (top and middle) and Decatur station (above).

In progress

1 Indoor Athletics Stadium, Frankfurt, West Germany. Architects: Foster Associates, London, England. Foster Associates was awarded this commission in a limited competition. To be sited within a large wooded sports complex, the hall will feature a 600-ft running track and areas for other track and field events, and will be convertible for baseball, football, tennis, and cycling. The shallow roof vault, 400 ft long and spanning 200 ft, rises from landscape-covered concrete abutments and comprises a double-layer trussed-steel frame of tubes and solid rods in a triangular grid configuration. The main space is slightly depressed to allow views of the events from outside covered areas.

2 Rochester Convention Center, Rochester, NY. Architects: James Stewart Polshek & Partners, New York, Skoler & Lee Architects, and the DeWolff Partnership, Associates. A horizontal base of pink and gray-banded granite, relating in scale to Main St., breaks to allow the emergence of a striped box of alternating tones of aluminum, in this 215,000-sq-ft convention center in Downtown Rochester. The box houses the 30-ft-high, 50,000-sq-ft column-free exhibition hall, alongside which runs a 65-ft-high, 260-ft-long skylit galleria overlooking the Genesee River. Two pedestrian bridges connect the Center to the enclosed walkway system of the city's retail, corporate, and cultural center. At entrance level, a banquet hall and meeting rooms, flexibly planned, can be combined, and at the curved end of the galleria is a wintergarden with a dining area beside an outdoor riverwalk. Energy considerations limited glass surfaces to important areas and called for a heat recovery system that transfers hot air from the upper galleria to the exhibition hall.

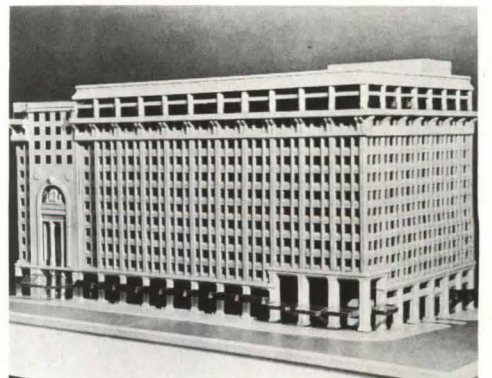
3 The Gus S. Wortham Theater Center, Houston, Tx. Architect: Morris-Aubry Architects, Houston. A two-theater ballet/opera complex, to begin construction in late 1982, with opening in 1985, has been organized by the Lyric Theater Foundation to meet Houston's expanding cultural arts demands and to complete a cultural grouping comprising Jones Hall, the Albert Thomas Convention Center, and the Alley Theater. The \$65 million complex is the first of its kind since Kennedy Center, and the most ambitious project of its type undertaken in the Southwest. The 1100-seat (on two levels) and 2300-seat (on four levels) theaters share an 80-ft-high Grand Foyer, occupying air rights over a city street. Total building height is 115 ft, and the main public spaces are entered through a monumental three-point Neo-Renaissance arch. Both buildings will be



faced with two shades of rose-colored stone, the darker of which will also be used on the frontispiece landscaped plaza. [Peter Papademetriou]

4 National Press Building renovation, Washington, DC. Architects: HTB, Inc., Washington, DC. They call it a renovation, but the job being done on this 1920s building includes the complete removal and less-than-sensitive replacement of the existing exterior wall. A new wing will be constructed, and a new 14-story interior atrium will be created. The \$30 million project comprises office space and an 82,000-sq-ft three-level shopping mall. The work will proceed with tenant occupancy maintained in half the building. Completion is slated for the summer of 1984. [SD]

[News report continued on page 60]





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Photo No. 1: TSPS Building, Walnut Creek, California. Architect: Howard Johnson and Associates, San Francisco, California.

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<input type="checkbox"/> Moisture Resistant	FOAMGLAS Insulation is totally resistant to moisture in liquid or vapor form.
<input type="checkbox"/> Dimensionally Stable	FOAMGLAS Insulation has a reversible coefficient of expansion of 0.0000046/°F . . . it will not stretch, shrink, swell or warp.
<input type="checkbox"/> Physically Strong, Rigid and Impact Resistant	FOAMGLAS Insulation has an average compressive strength of 100 psi. It is manufactured in rigid block and board form.
<input type="checkbox"/> Noncombustible, acceptable for insurance and building codes	FOAMGLAS Insulation is all glass, it cannot burn or emit noxious fumes if a fire should occur.
<input type="checkbox"/> Resists Deterioration	FOAMGLAS Insulation does not deteriorate when wet.
<input type="checkbox"/> Low "k" Value (thermal conductivity) Highest Possible "R" Values (thermal resistance) in order to have thinnest possible insulation.	FOAMGLAS Insulation has an "R" value of 2.86 per inch (k=.35) and may require greater thicknesses than other insulations to achieve the highest possible "R" values.
<input type="checkbox"/> Constant "k" Value that does not drift with age.	FOAMGLAS Insulation will not outgas nor absorb moisture so it will maintain its original insulating value for the life of the installation. Other insulations cannot make that claim.
<input type="checkbox"/> Withstand Bitumen Application Temperatures.	FOAMGLAS Insulation is not affected by the temperatures required to apply hot bitumens.
<input type="checkbox"/> Compatible with Roof Membrane	FOAMGLAS Insulation is compatible with all current roof membranes.
<input type="checkbox"/> Surfaces Accommodate Secure Attachment	FOAMGLAS Insulation can easily be attached to the deck with bitumens or mechanical fasteners. Roof membranes strongly adhere to its smooth, even surface.

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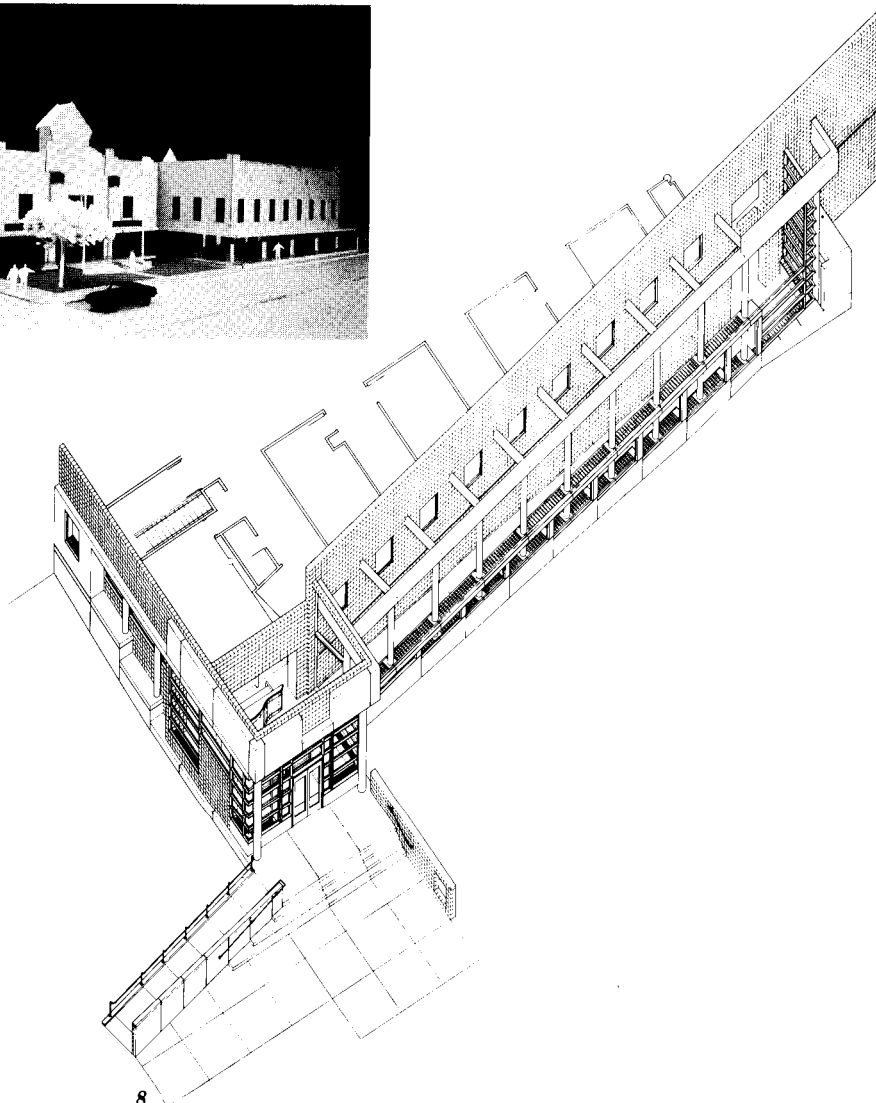
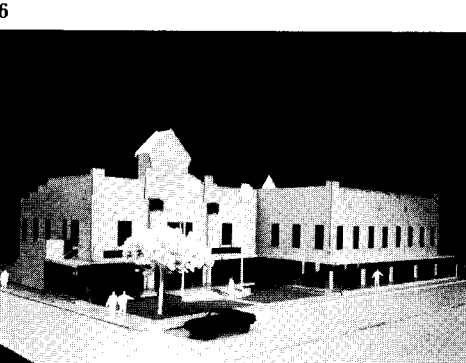
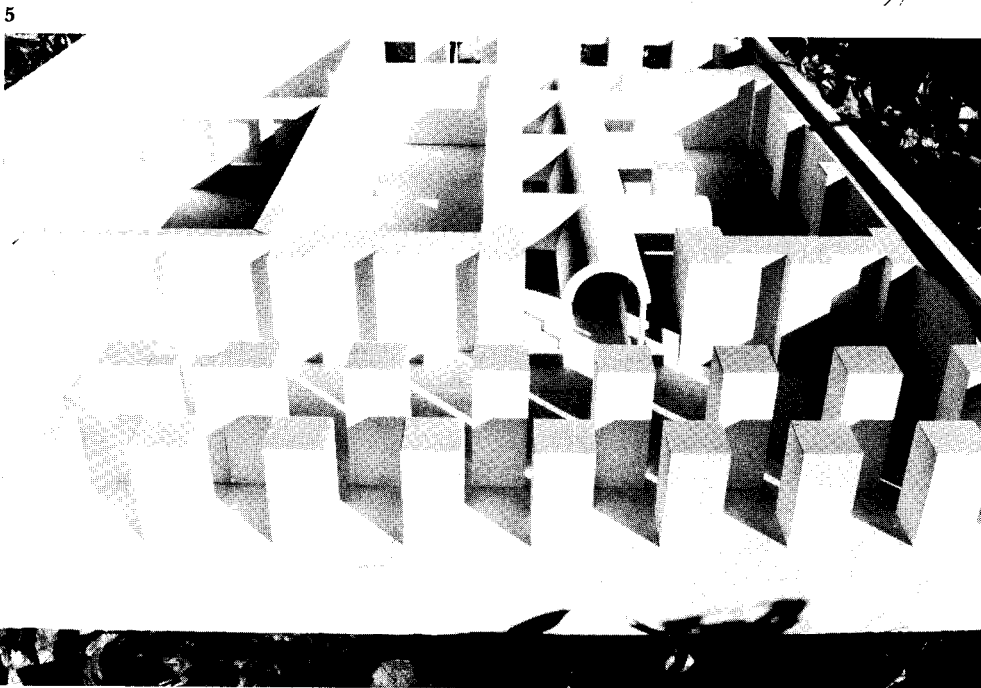
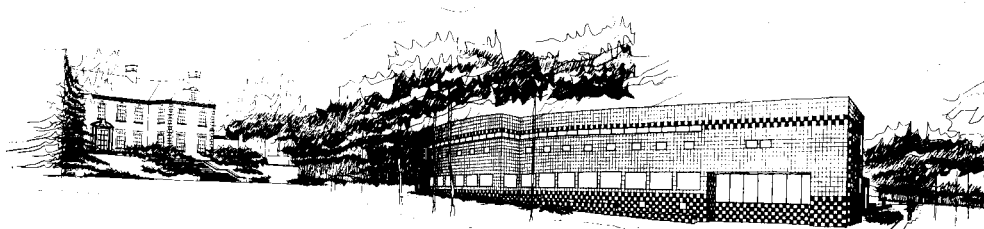
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5 Library addition, Gwynedd Mercy College, Gwynedd Valley, Pa. Architects: *Dagitt-Saylor, Philadelphia*. This addition is designed to wrap around the existing one-story library built in the early 1960s, integrating the new spaces with the old to form a single rational entity. The addition will include an entrance, carrels, lecture room, and facilities for an extensive audio/visual collection. The reference/reserve library, bookstore, and periodical room are arranged as alcoves around an open reading room. The upper floor is similarly conceived for carrel space. Interiors employ gypsum wallboard and plastic laminate millwork. On the exterior, the two colors of brick sheathing the steel frame construction were selected to relate to existing masonry structures on campus. [RJ]

6 E.F. Hauserman Company showroom, Chicago, Il. Architect: *Arata Isozaki, Tokyo*. This showroom in Chicago's Merchandise Mart for an office systems manufacturer will open in June, in time for NEOCON. The 8300-sq-ft space will be articulated by a system of square piers and cross vaults. The intention is to express Hauserman's philosophy of the integration of people, space, and technology into a "harmonious trilogy."

7 Fayette County Savings and Loan Association, La Grange, Tx. Architect: *William T. Cannady & Associates, Houston*. A contemporary program, sited adjacent to a small Texas rural county courthouse square surrounded by 19th-Century one- and two-story commercial structures, demanded a sensitive response to integrate complex requirements of 18,000-sq-ft automobile-age office building. A Z configuration in plan develops entrances for a rear parking lot and drive-in windows, and a symbolic front lawn abuts the public square. Interpretative use of vernacular elements from the rich profile of the roofscape context articulates the primary program components while facilitating the formal contribution of the present to the scale of a valued past. The steel frame building is clad in two-tone brick with precast concrete, metal arcades, and standing seam metal roofing. [Peter Papademetriou]

8 Environmental Health and Science Laboratory, Mobil Technical Center, Hopewell Township, NJ. Architects: *Geddes Brecher Qualls Cunningham, Princeton, NJ*. Gridded surfaces are used as scaling devices on this building which consists of a laboratory surrounded in part by administrative offices and capped by a mechanical penthouse. The laboratory aligns with existing buildings designed by Eliot Noyes on the Center's campus, and the laboratory's tree-lined entry and colonnade recall the orientation of the original 1844 Johnson estate that occupied the site. The cadence of trees and colonnade continues from the entry walk into a skylit gallery and is terminated by a garden room and, externally, a hanging garden. A steel frame is clad in 8-in.-square ceramic tile, 4-ft-square resinous concrete panels, and steel-faced sandwich panels set in 8-ft-square aluminum frames.



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NEOCON 14

**The Merchandise Mart
and Neocon International
Chicago**

June 15-18, 1982



The grand opening of an all-new 8th floor of showrooms at Chicago's Merchandise Mart will highlight NEOCON 14, an international contract furnishings market and congress on environmental planning, June 15-18. This brings to seven the number of floors now housing contract furnishings showrooms at the Mart.

As international keynote speaker at NEOCON 14, Elissa Aalto, architect and planner, will present a tribute to Alvar Aalto, her late husband, Wednesday, June 16. Her talk will deal with the impact of Alvar Aalto on the architecture and design community, as well as her continuation of the Aalto office after her husband's death in 1976. On Thursday, June 17, NEOCON will see Paolo Portoghesi of Rome and Arata Isozaki of Tokyo face off in "East Meets West." As two of the leading architectural practitioners in the world today, Portoghesi and Isozaki will present their divergent points of view on the direction of contemporary design.

Other speakers will include: Edmund N. Bacon, architect and planner, Paul Goldberger, architecture critic for the *New York Times*, and Gerard K. O'Neill, scientist and president of the Space Studies Institute.

The main event—the premier of new contract furnishing designs and products in the Mart—will again be complemented by NEOCON International, an exhibit of the newest designs in contract furnishings from Canada, Europe, South America, and Japan at the Expocenter just across the street from the Mart. Also at the Expocenter, *Progressive Architecture* will display the winners of the Second Annual Conceptual Furniture Competition.

NEOCON 14

The Merchandise Mart
and Neocon International
Chicago

June 15-18, 1982

Seminars and workshops

Tuesday, June 15

Workshop 10:30 A.M.

'Defining the Role of Contract Furniture Dealers in the Decade of the '80s'

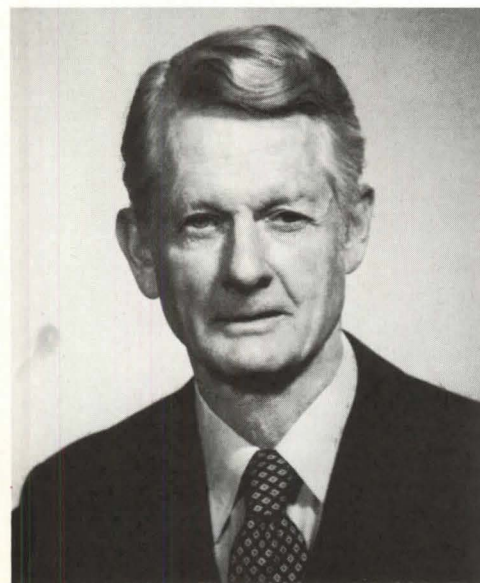
Panelists from the Institute of Business Designers, the American Institute of Architects, the Business and Institutional Furniture Manufacturers Association, and the Organization of Facility Managers and Planners will present their views and debate with the audience on this topic. Mel Levin, president, Business Equipment Corp., will represent the dealers on this panel.

Seminar 4:30 P.M.

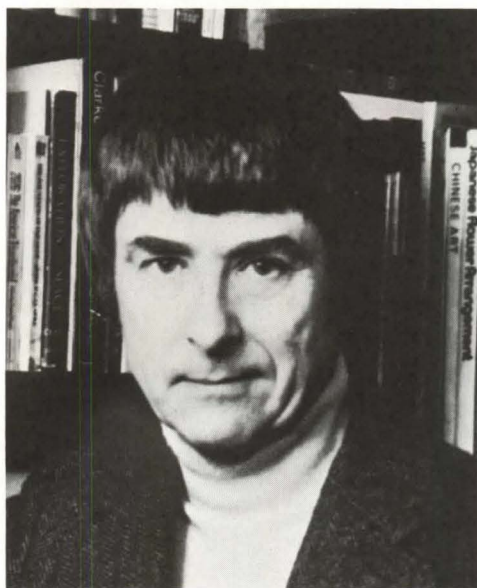
'An Agenda for the '80s: A Conference of Mayors'

Mayors representing major American cities will discuss contemporary urban planning and strategy to determine the state of these metropolitan areas today and tomorrow.

Chairman: Edmund N. Bacon, architect and planner.



Edmund N. Bacon



Gerard K. O'Neill

Workshop 10:30 A.M.

'Agenda for the '80s: A New Optimism? An Addendum for Planners'

America's top city planners will assemble to present issues and answers on the livability, the flexibility of resources, the growth and future planning of these metropolitan areas.

Moderator: Edmund N. Bacon

Workshop 2:30 P.M.

'Floorcovering: A Designer's Point of View on Considerations and Selection'

A panel of interior environmental designers will discuss the problems they encounter when planning and specifying large spaces and carpeting for their clients.

Moderator: Walter Guinan



Elissa Aalto

Workshop 2:30 P.M.

'The Prescription for Better Lighting: Solving Serious Vision and Lighting Problems in the CRT Office'

A hands-on workshop on the lighting problems created by CRTs, and the techniques and products available to alleviate them.

Participants: James Nuckolls, IALD; Jeffery Milhan, president, Design Decisions; Dr. Melvin Schrier, New York Academy of Optometry.

Seminar 4:30 P.M.

'A Tribute to Alvar Aalto'

Highlights of Aalto's work and a summary of the impact his office had on architecture and design in the 20th Century.

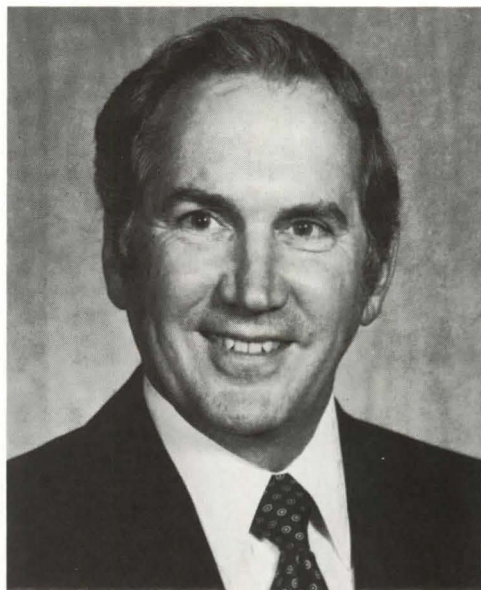
Speaker: Elissa Aalto, architect and planner.

Seminar 4:30 P.M.

'The Technological Impact on the Future Shape of the Office'

Corporate executives representing major Fortune 100 telecommunication and automation firms will detail the influence these systems have on the shape and function of the office to come.

Moderator: to be announced



Dr. William S. Kiser

Wednesday, June 16

Seminar 8:30 A.M.

'Life in 2081: A View of the Human Future'

A blueprint for the shape of the world, and how technology can be used for progress and the improvement of the human condition.

Speaker: Gerard K. O'Neill, scientist, president of the Space Studies Institute.

Workshop 10:30 A.M.

'Floorcovering: A Consumer's Point of View on Considerations and Selection'

Consumers representing major corporations who must purchase and maintain large amounts of contract carpeting will discuss cost and longevity.

Moderator: Walter Guinan, retired president, Karastan.

Thursday, June 17

Seminar 8:30 A.M.

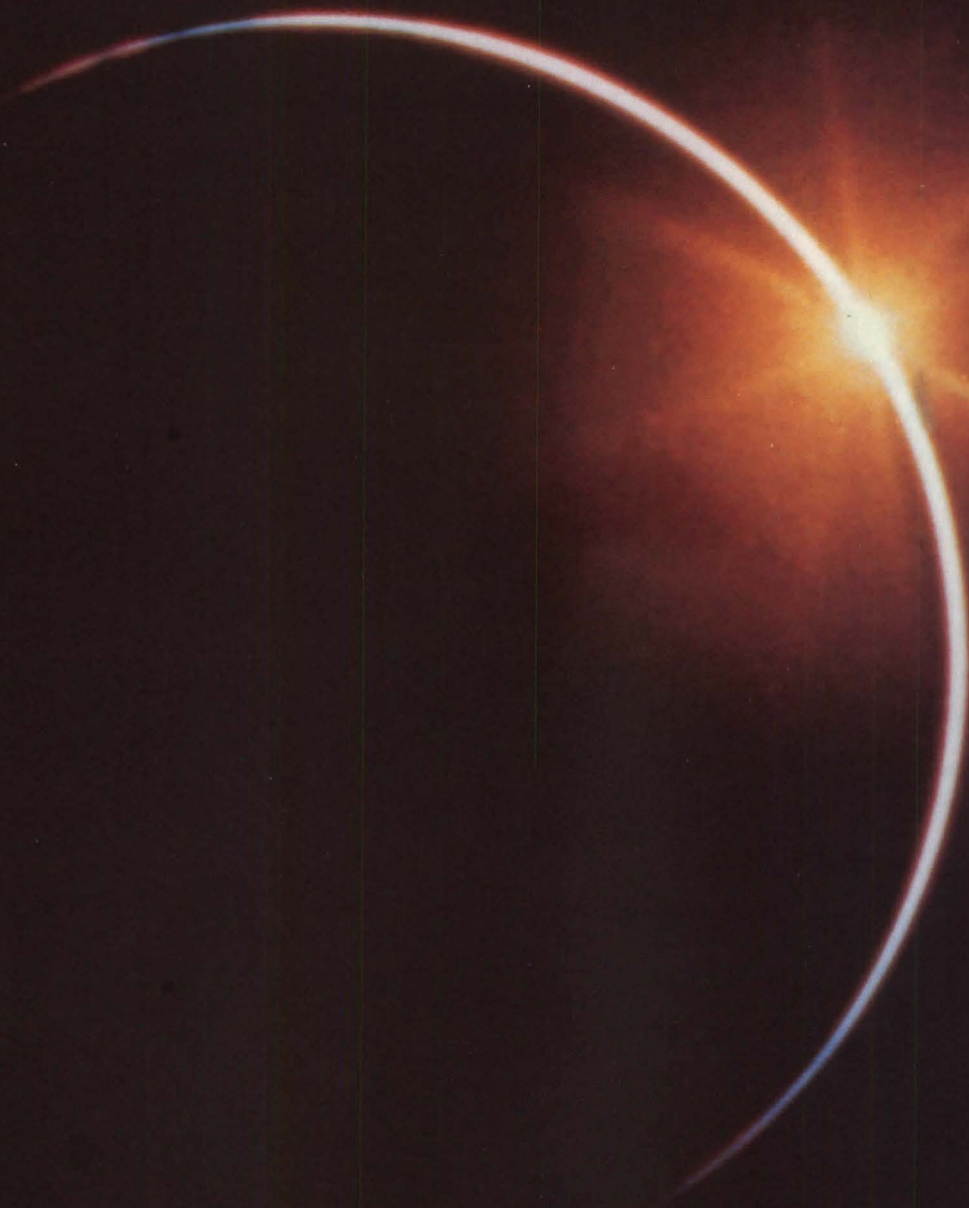
'American Health Care: The Next Industrial Revolution'

The dual role of the modern medical institution as a growth industry, and how health care facilities must respond to the needs of the immediate community, regional facilities, and the world.

Speaker: Dr. William S. Kiser, chief executive officer, The Cleveland Clinic Foundation.

[Continued on page 70]

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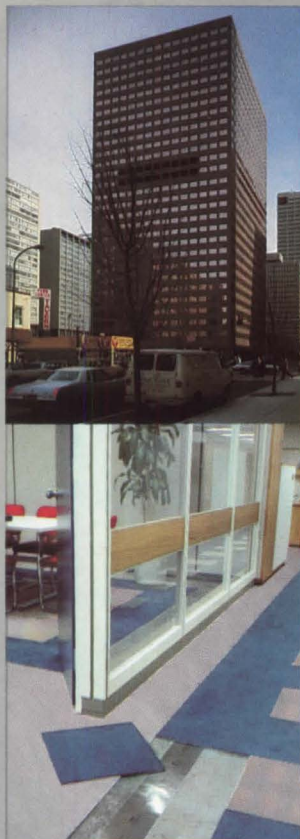
Because flat cable requires modular carpet as floor covering, there is an increasing demand from design firms like Mitchell Associates and Nelson & Associates for a modular product that delivers optimum cable overlay performance as well as aesthetics.

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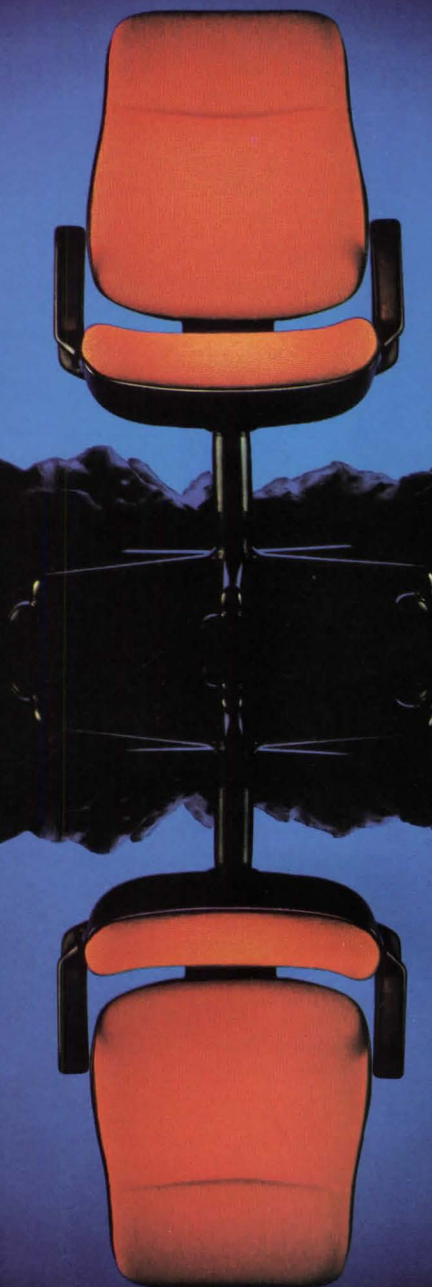
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NEOCON 14

The Merchandise Mart
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Chicago

June 15-18, 1982

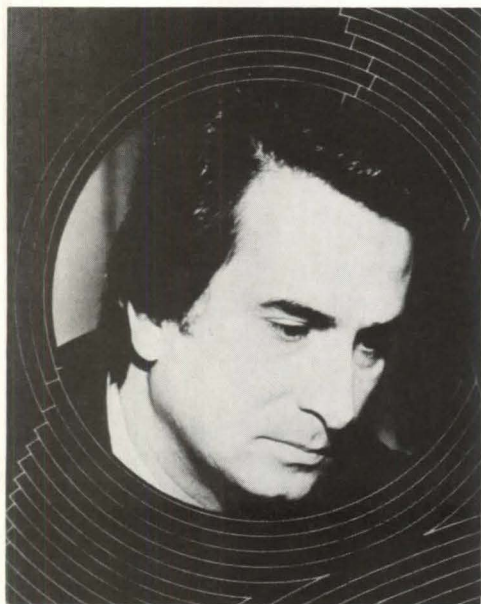
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Thursday, June 17 (continued)

Seminar 8:30 A.M.

'Overview of the International Hotel Industry'

The hotel industry from an international perspective. Hotel designers John Graham, Graham-Solano, Raphael Blumenfeld, Tel Aviv, and Bent Severin, Singapore and Copenhagen, will join speaker Hans Sternik, president, Intercontinental Hotels.



Paolo Portoghesi

Workshop 10:30 A.M.

'The A&D Profession's Role in Facility Management'

The interface of the architecture and design professions on facility management, with audience response.

Panel: Edward Agostini, AIA, Caudill, Rowlett, Scott; Neville Lewis, Neville Lewis & Associates; Michael Tatum, Interiors.

Moderator: John R. Adams, Facility Management Institute.

Workshop 10:30 A.M.

'Vacancies in the World Hotel Market: Lucrative Design Opportunities in All Continents'

An exploration of the business opportunities in the global market. Members of the audience will be able to respond to the panel's ideas, methods, and design techniques. Panelists: John Graham, Raphael Blumenfeld, and Bent Severin.



Dr. Jean Houston

Workshop 2:30 P.M.

'The Professionalization of Facility Management'

The role of the facility manager in the design and construction of a corporate headquarters. Panelists: Allen G. Lunsford, World Vision International; Hester S. Jones, Pennzoil Company; J.B. Gearhart, TRW, Inc.

Moderator: George Graves, Texas Eastern Transmission Corporation.

Workshop 2:30 P.M.

'An International Recipe for the Development and Design of an Exciting Urban Restaurant'

A designer and leading international restaurant entrepreneur will discuss plans for a major commercial restaurant operation in the heart of an urban setting including the rehabilitation of a 19th-Century structure.

Panel: to be announced

Seminar 4:30 P.M.

'East Meets West: A Face-Off Between Paolo Portoghesi of Rome and Arata Isozaki of Tokyo'

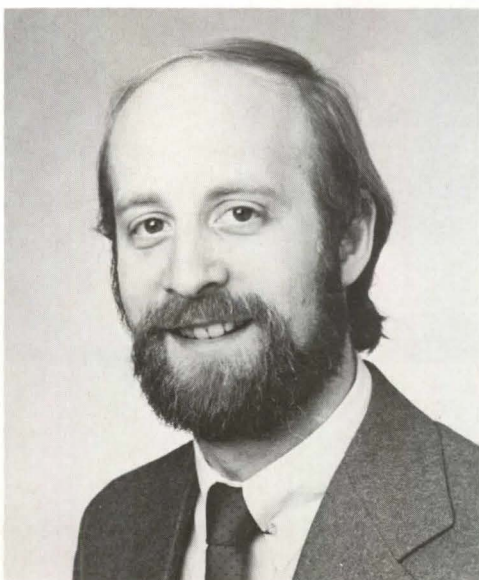
Portoghesi and Isozaki will meet face-to-face in a challenge of international ideas. They will contrast philosophies and culture in a confrontation of Eastern and Western thought.

Workshop 4:30 P.M.

'Facility Management: The Environment and the Quality of Work Life'

The workshop will address the topic of how the facility manager operates within the corporate working environment for greater productivity.

Panel: to be announced



Paul Goldberger

Friday, June 18

Seminar 8:30 A.M.

Council of Developers

Developers from the Rouse Co. and another unannounced firm will join in a discussion of their role in the building and rebuilding of cities in the North and Sunbelt. They will present recent projects and suggest how progress and growth can be shared by large and small cities across the nation.

Seminar 8:30 A.M.

'The Possible Human: An Exploration of Practical Environmental Planning for the Decade Ahead'

Dr. Jean Houston, director of the Foundation for Mind Research and a protegee of Margaret Mead, will offer her ideas on the changing scope of business, culture, and industry.

Workshop 10:30 A.M.

'The Habitability of Earth-Sheltered Environments'

A look at major earth-shelter projects now in operation in the U.S. Architects and managers of these facilities will discuss the benefits of the underground.



Arata Isozaki

Workshop 10:30 A.M.

'Managing the Design Firm: Birth, Survival, Stability'

Three managers representing a small firm, a medium-sized firm, and a large firm discuss the administration of their businesses through various stages of growth.

Chairman: Justin Thompson, Business Products Consulting Group International

Moderator: Jo Heinz, IBD.

Seminar 12:00 P.M.

'Why Modern Architecture Lost Face'

Paul Goldberger, architectural critic, the *New York Times*, will address the Architects Day Luncheon gathering to question contemporary architecture and what can be expected in the future.

Workshop 2:30 P.M.

'Business Development: Strategies and Tactics to Increase Your Design Business'

A series of workshops to develop a complete plan for business development. Sessions will include effective and efficient use of advertising and public relations, design quality control, developing second-level management, writing policies, staff evaluations, growing pains, and cultivating and maintaining an excellent design group.

Moderators: Justin Thompson and Jo Heinz

[Continued on page 74]



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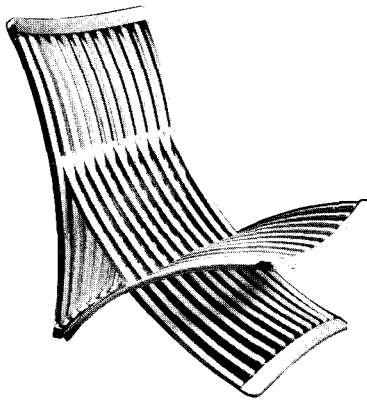


Private Spaces

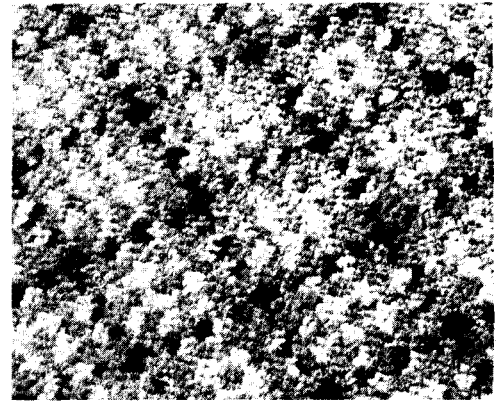


Wood Systems



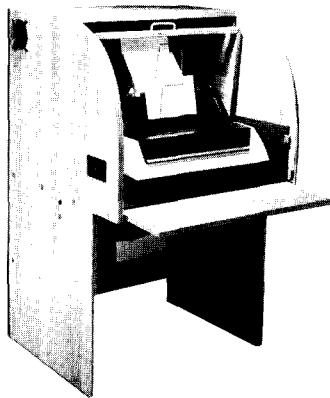


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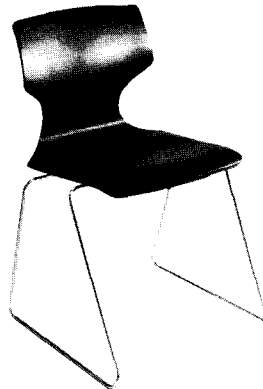


Armstrong: Merger, a plaid design with a "woven" look, of Antron III nylon, in five colors.
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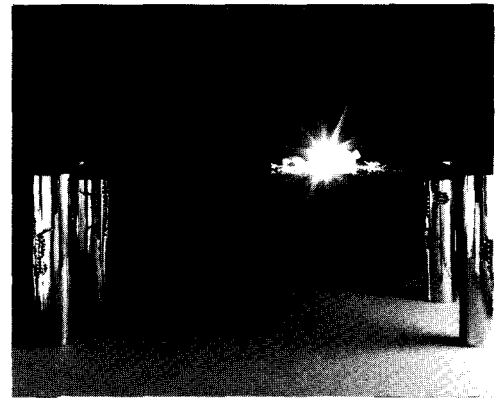
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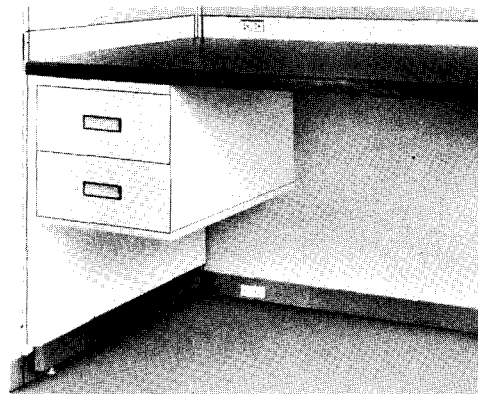
Adden: The Whisper Hood coordinates with Adden Office Automation Series and deadens printer unit noise.
Circle 100 on reader service card



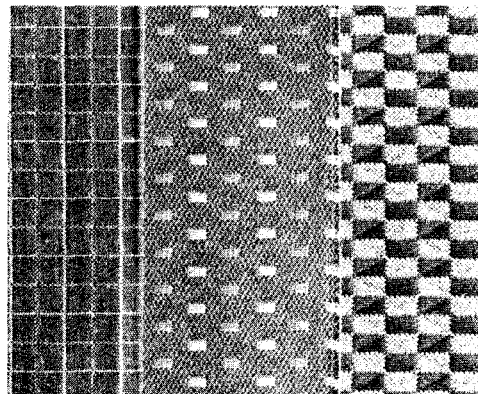
American Seating: The Flototto line of occasional, stacking, and ganging chairs in dark or light finishes.
Circle 104 on reader service card



Artemide: Vignelli Associates and Arnaldo Pomodoro collaborated on a table produced by Rosenthal.
Circle 108 on reader service card



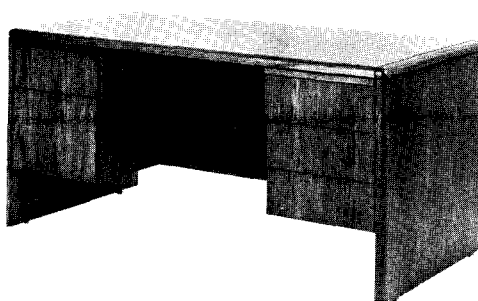
All-Steel: Radiused "comfort edges" will be standard on all 8000 series Systems work surfaces.
Circle 101 on reader service card



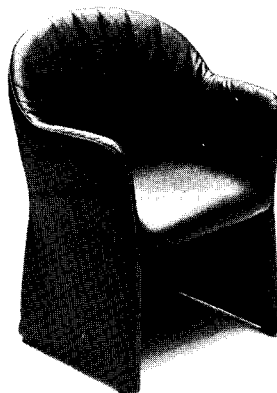
Arc-Com: 100 percent nylon Graphic II Jacquard upholstery collection, in three small-scale designs.
Circle 105 on reader service card



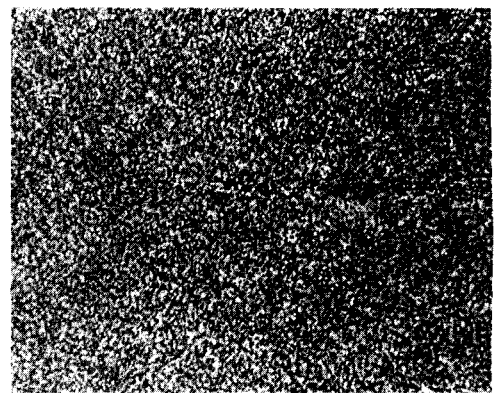
Atelier International: The UNI chair in seven models uses interchangeable components for 98 variations.
Circle 109 on reader service card



Alma Desk: The Series 1600, with rolled edges and black reveal lines, offered in two oak finishes.
Circle 102 on reader service card



Arconas: The Aurora by André Vandenbeuck for conference and dining application; steel internal frame.
Circle 106 on reader service card

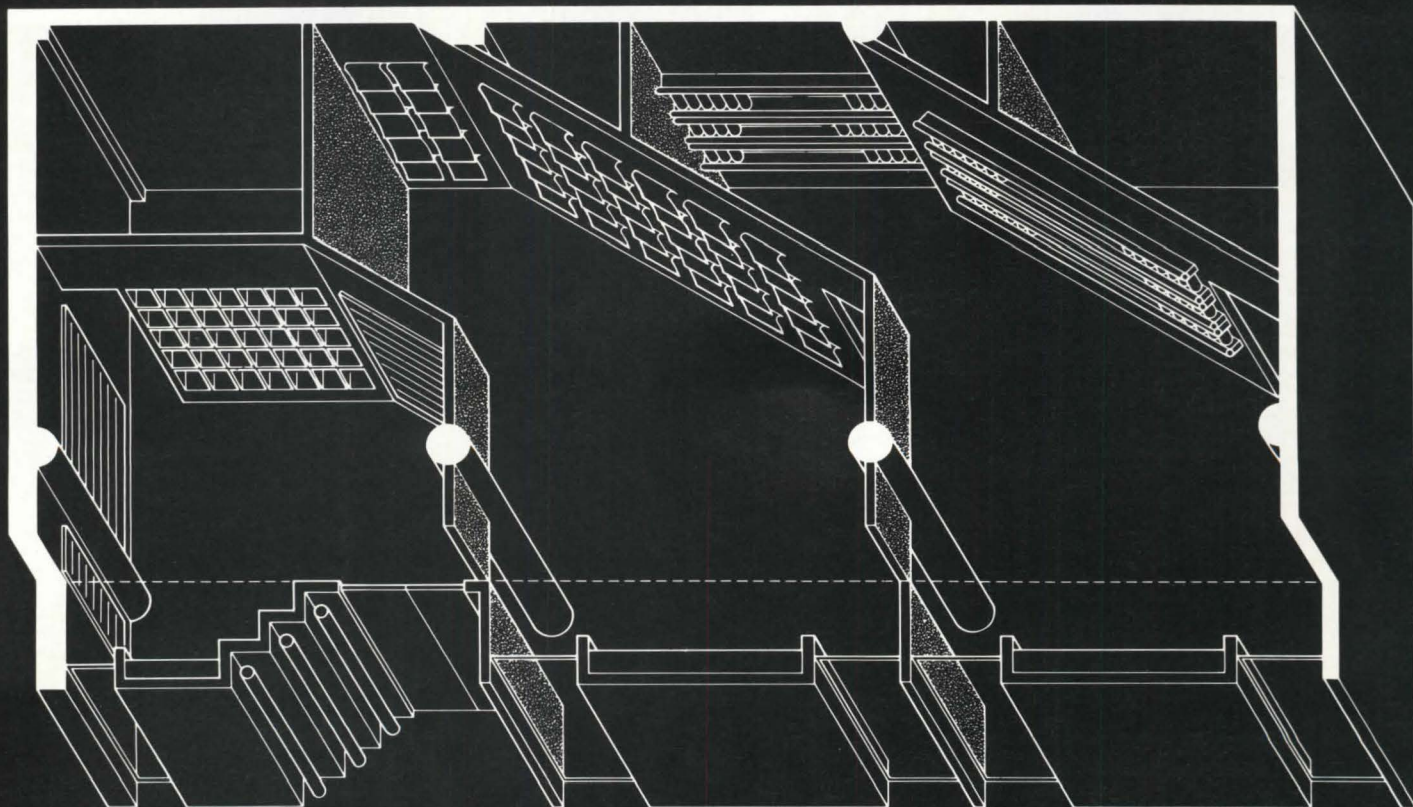


Badische: Glen Heather, made with the Kara-loc weaving process, is available in 15 colorations of Zeftron nylon yarn.
Circle 110 on reader service card
 [Continued on page 80]



WHERE ALL WE ARE
IS HERE FOR YOU

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SPACE 888





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Beautiful tomorrow.**

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Du Pont Antron® is the
most specified
commercial carpet
fiber in America.**

More designers specify Antron® nylon than any other commercial carpet fiber for two persuasive reasons: because Antron® offers complete design flexibility with more styles and colors than any other commercial nylon fiber and because Antron® wears so well.

Antron® nylon is engineered for high performance in commercial installations. It provides excellent soil resistance, built-in static protection, and appearance retention — under a wide variety of traffic conditions.

The carpeting in the new Texas Commerce Bank Quorum, Dallas, is made of Antron® XL, Du Pont's newest and best-performing commercial carpet fiber. Because the tellers' area is subjected to a constant stream of traffic, the carpeting has to stand up to a lot of abuse.

Antron® XL can take that kind of abuse. Antron® XL features extra-large filaments for extra-long resistance to soiling and crushing. Because of the large filaments, carpets of Antron® XL have 25% to 30% less surface area to attract and trap dirt. The result: carpets of Antron® XL require less frequent maintenance to retain their original good looks.

Specify Du Pont Antron® for commercial carpets that will offer a lasting complement to your design.

Interior design by Hellmuth, Obata & Kassabaum, Inc., Dallas.
Carpet supplied and installed by Carpet Services, Inc., Dallas.

**DUPONT ANTRON®
COMMERCIAL CARPET FIBERS
ENGINEERED FOR PERFORMANCE.**



Circle No. 336 on Reader Service Card

One of the rewards of hard work should be a soft chair

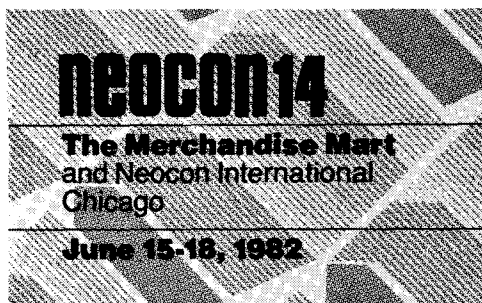




Knoll introduces Stephens Office Seating



Knoll International
The Knoll Building
655 Madison Avenue
New York, NY 10021

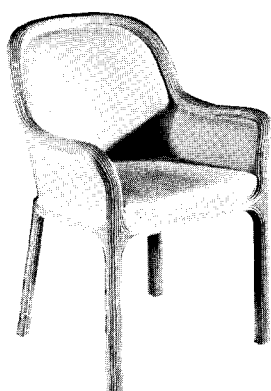


Beylerian: Double Face is a rotating 360-degree bookcase in open front or with vertical glass sliding doors.
Circle 114 on reader service card

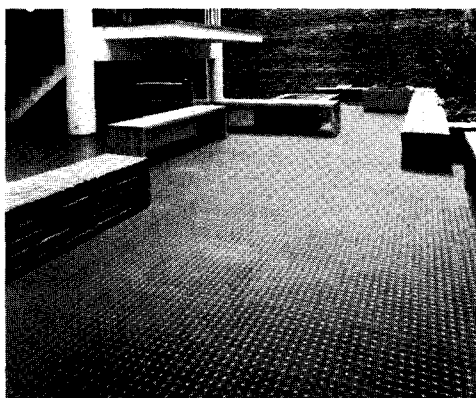


Brunschwig & Fils: The Danforth woven texture is 52 in. wide and 100 percent cotton, in four colors.
Circle 118 on reader service card

Continued from page 74



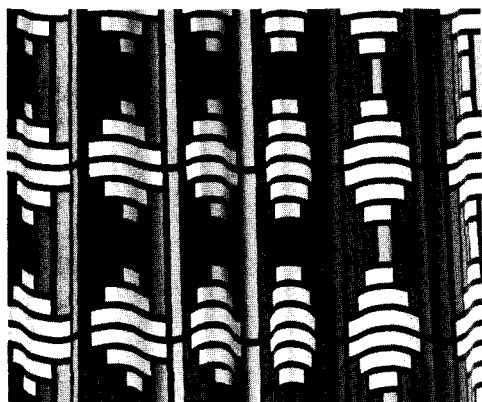
Baker, Knapp & Tubbs: From the Rausch Linea Cara Collection by Karl Rausch, in hand-sculptured mahogany.
Circle 111 on reader service card



Biltrite: The Endura line of heavy-duty rubber studded floor tiles, available for the first time in the U.S.
Circle 115 on reader service card



C.I. Designs: Gaston and Grospoint fabrics join six imported hardwood floors and the Best Leather group.
Circle 119 on reader service card



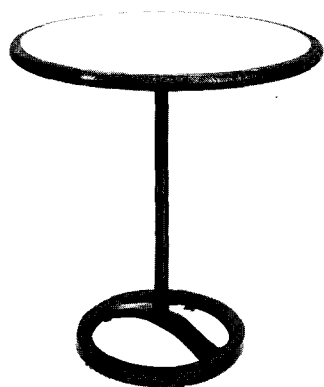
Ben Rose: "Pavilion" is inspired by the effect of lattice-enclosed walkways surrounding the Peking Summer Palace.
Circle 112 on reader service card



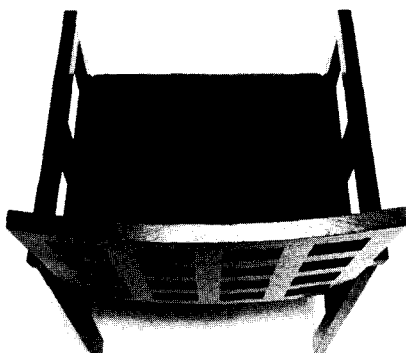
Brayton: The Panta chair can be tilted and locked in four positions with fingertip control.
Circle 116 on reader service card



Castelli: The Mississippi series features modular components forming various designs. Rubber over metal wire.
Circle 120 on reader service card



Berco: Series 60's cast-iron pedestal is available in three diameters to hold tables up to 60 in. in diameter.
Circle 113 on reader service card



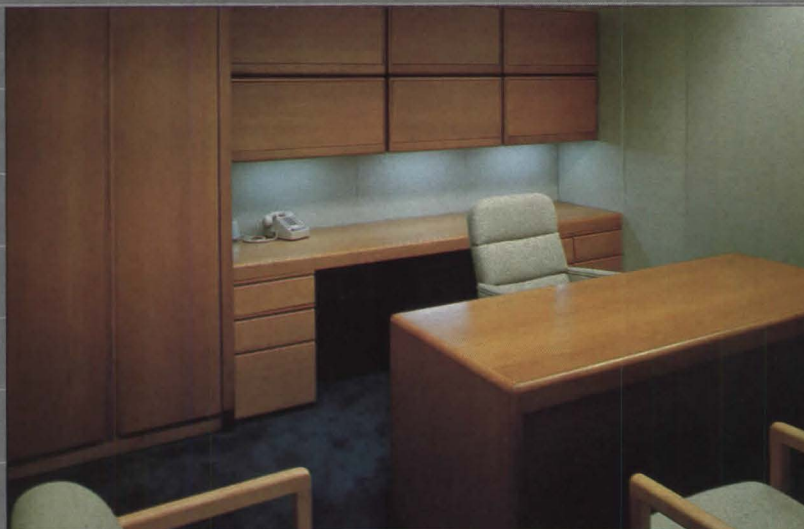
Brickel: Ward Bennett's Grid Chair comes in five different finishes for conference or executive suites.
Circle 117 on reader service card



Chromcraft: High back chair with arms, part of the 840 Seating Series, comes in three metal finishes and many fabrics.
Circle 121 on reader service card
 [Continued on page 86]



SPECIFIED TO ACCOMMODATE



interior design: Interspace Incorporated



The Rose•Johnson office furniture system has been selected by Joy Manufacturing Company for their new corporate offices in Pittsburgh, Pennsylvania.

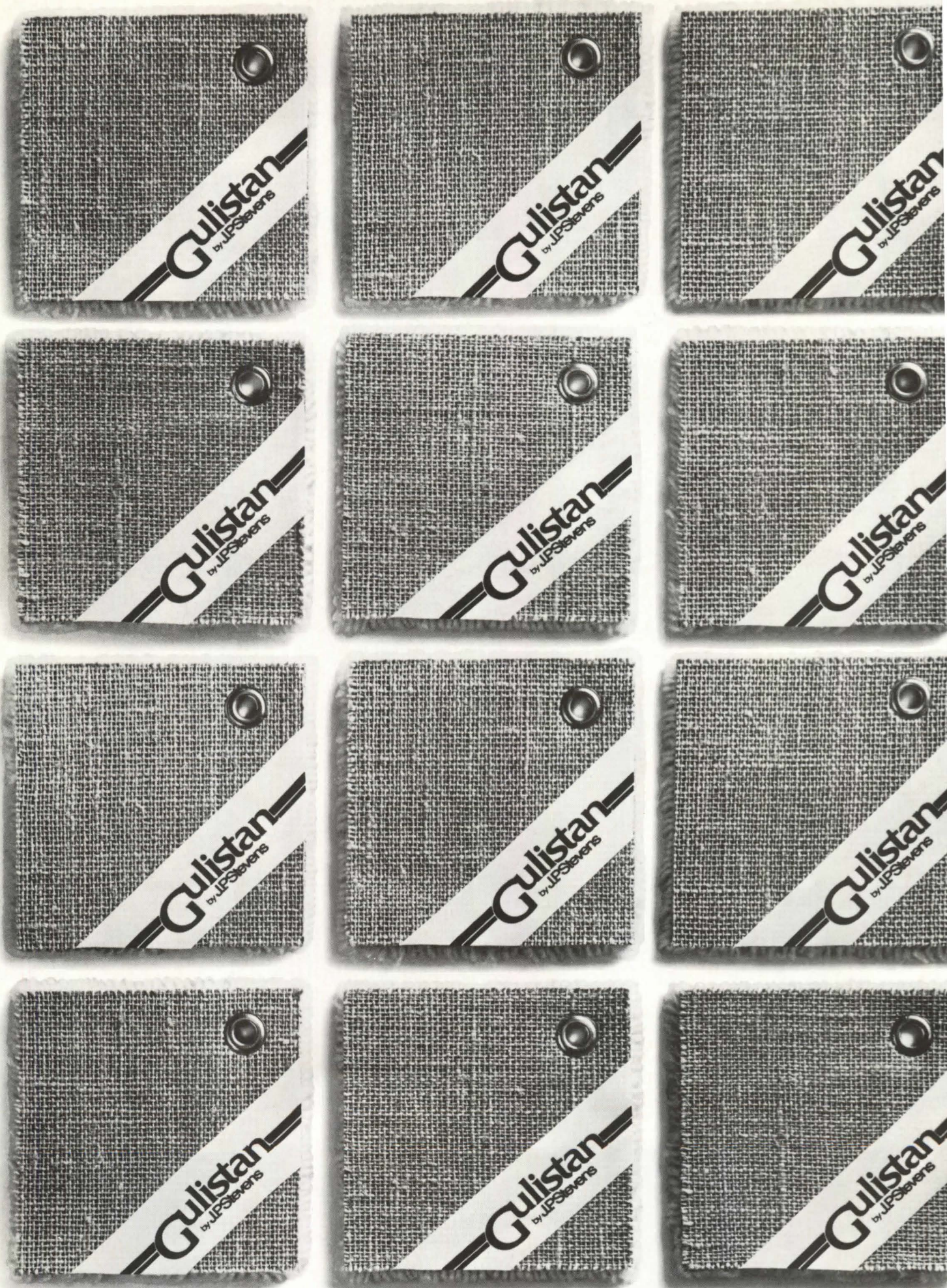
A wide selection of panels, worksurfaces, storage cases and components were specified to accommodate the functional user needs throughout all levels of the corporate structure.

The quality of design detailing and the warmth of wood evident in the system makes it an attractive solution for the discriminating user. For further information and literature on how this system can work for you contact Rose•Johnson.

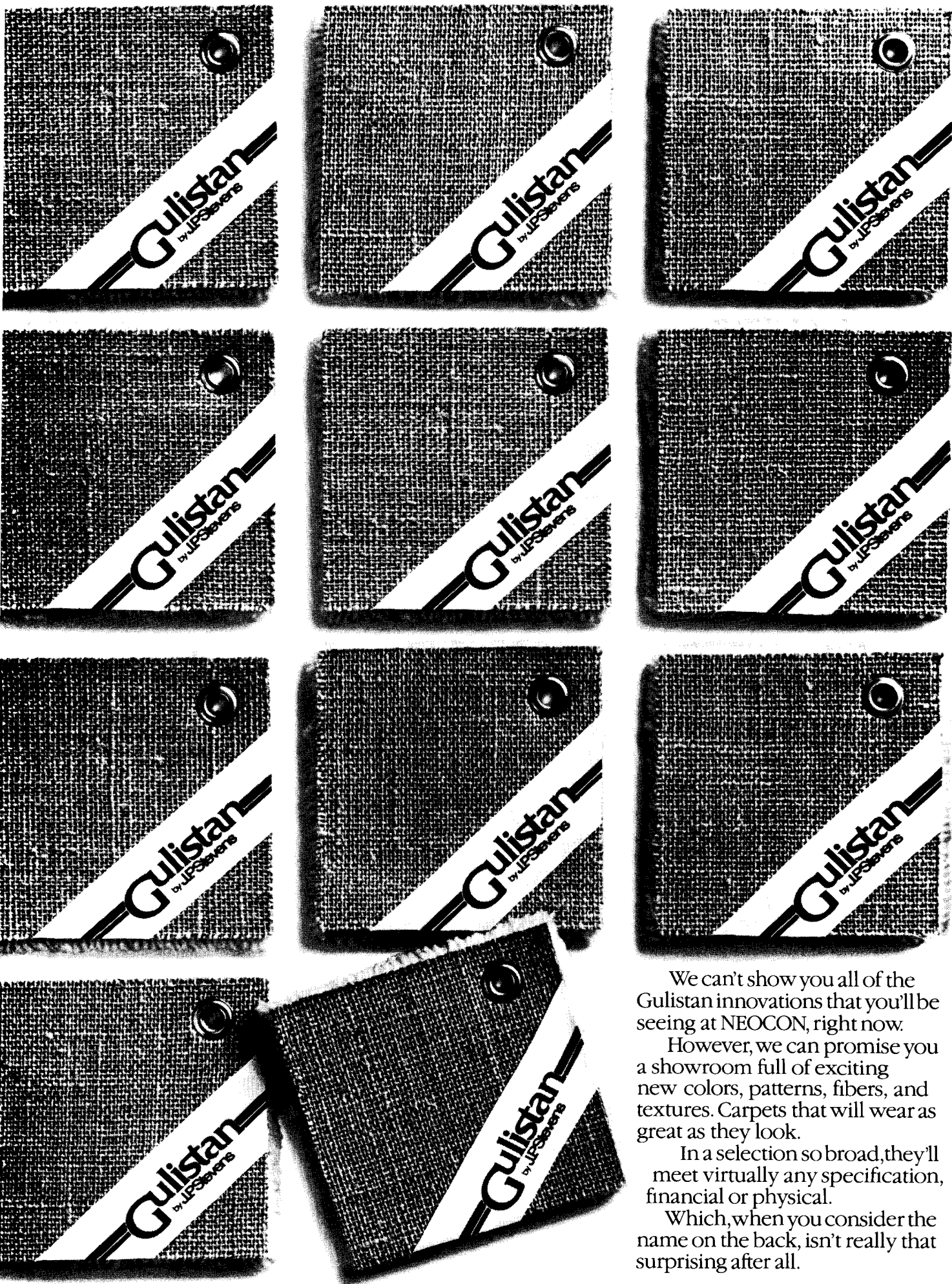
**Office
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However, we can promise you a showroom full of exciting new colors, patterns, fibers, and textures. Carpets that will wear as great as they look.

In a selection so broad, they'll meet virtually any specification, financial or physical.

Which, when you consider the name on the back, isn't really that surprising after all.

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“Schumacher.”

“And the rugs?”

“Schumacher.”

“And the wallcoverings?”

“Schumacher.”

“And the upholstery? And the draperies?”

“Schumacher.”

“Schumacher.”

“So what took you so long?”

“They have a lot to see.”

See us at NEOCON—Space 6-133

Inquire: **SCHUMACHER** Contract Division • 939 Third Avenue, New York, NY 10022 • (212) 644-5960.

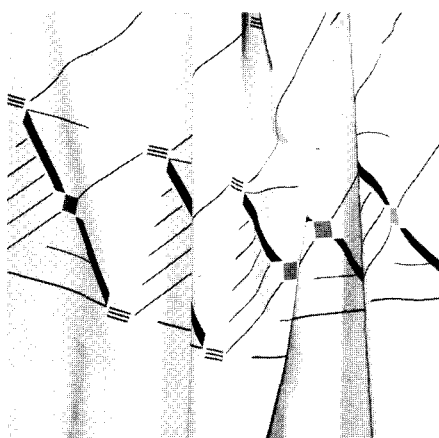
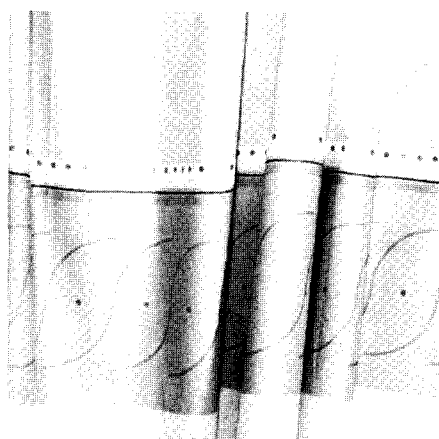
Du Pont
TEFLON[®]
soil/stain
repeller

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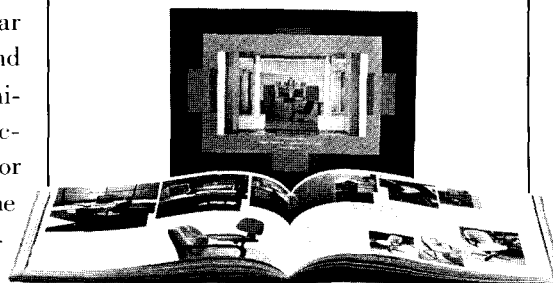
Designs on Chicago

There will be much going on in Chicago at NEOCON 14 when the Mart becomes 'the hub of the universe' for interior designers, planners, architects, and businessmen, June 15 to June 18. The program for this year's 'moment of glory' is filled with distinguished national and international speakers who will participate in seminars and workshops—*Life in 2081*, *A Tribute to Alvar Alto*, *East Meets West*, *Why Modern Architecture Lost Face* with Edmund N. Bacon, Paul Goldberger, Elissa Aalto, Paolo Portoghesi, Arata Isozaki to name a few.

And at Sunar it's all new and exciting for NEOCON 14.

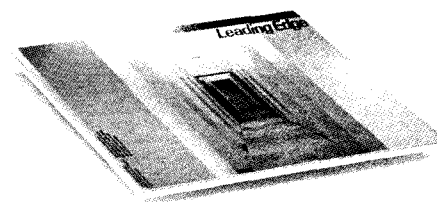


We opened our Chicago showroom three years ago but are happy to report we have outgrown it. "What are the real reasons behind Sunar's success?" you may ask. Above all it's you, our clients. Because of you and your demanding standards, the performance and reputation of our company have grown by leaps and bounds. Grown so fast that



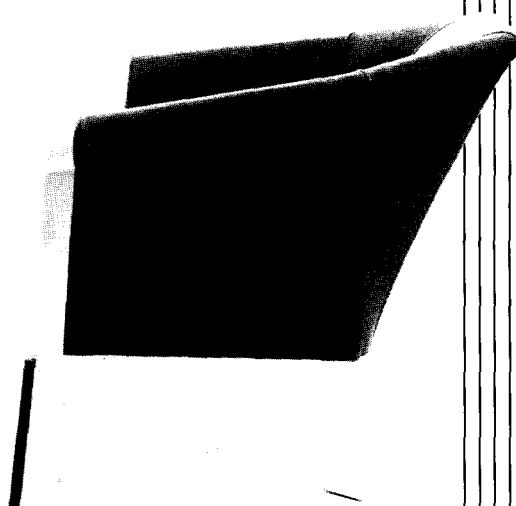
sunar

18 Marshall Street, Norwalk, CT 06854
One Sunshine Avenue, Waterloo, Ontario N2J 4K5



we've outgrown our Michael Graves' showroom in the Mart. So he has designed an expanded space—9,000 square feet—for us. It will be ready for you June 15.

It will be filled with old favorites. Race and PAS systems, all the Douglas wood desks and enclosures; the Helena, Drabert, and Pettitt collections; tables by Ball, Pettitt and Graves.



Design Director Douglas Ball and Architect Graves will be on hand with Sunar executives Chairman Robert B. Cadwallader, president William Phillips, vice presidents Walter Rydd and Larry Main, Divisional Manager David Betanski and his staff.

We hope you will come by.

Circle No. 421 on Reader Service Card

neocon14

The Merchandise Mart
and Neocon International
Chicago

June 15-18, 1982

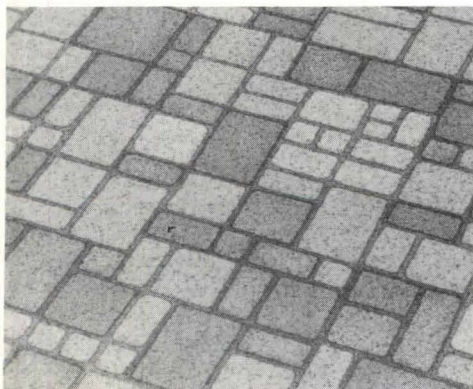
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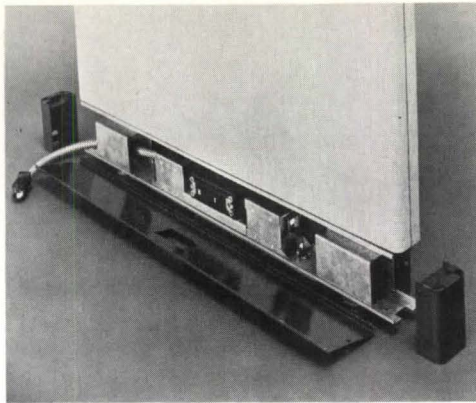
Comforto: System 15 features ergonomic styling with infinite posture and height adjustment capability.
Circle 122 on reader service card



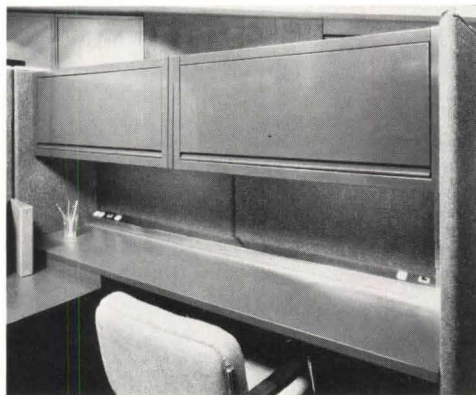
Condi: The 930 Chair Series by John Wolcott features a posture back and swivel-tilt design.
Circle 123 on reader service card



Congoleum: "Americana" is manufactured with the High Performance Chromabond formula, in six colors.
Circle 124 on reader service card



Conwed: This wire and power distribution base conceals all electrical and communications wiring in base panels.
Circle 125 on reader service card



Corry Jamestown: Components of the 2000 System featuring 1½" thick panels, radiused end, polished chrome trim.
Circle 126 on reader service card



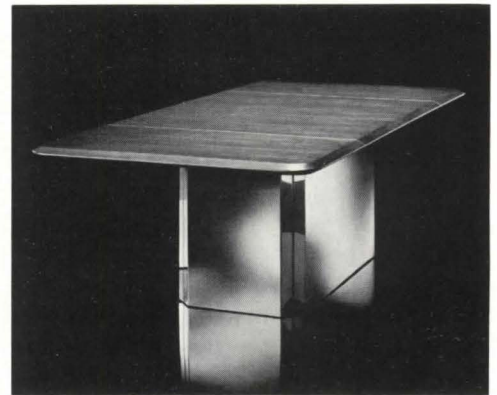
Cramer: Workseat 9600 with automatic or manual height adjustment, in chrome or one of twelve enamel colors.
Circle 127 on reader service card



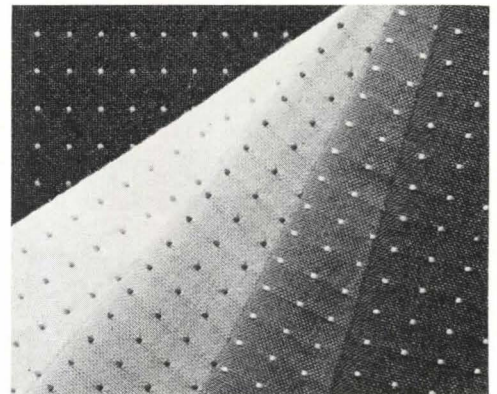
Cumberland: The #116 Modular Group units: one arm or corner and a center piece. Optional matching table.
Circle 128 on reader service card



Cy Mann: Sculptured Banquet is small-scaled, modular group seating. Can be used separately or in groups.
Circle 129 on reader service card



Davis: The Conference Group comes in six table top shapes, eight edge shapes, and 16 leg/base configurations.
Circle 130 on reader service card



Design Tex: Nylo Orbit is woven on Jacquard looms with a geometric dot design in 15 colors.
Circle 131 on reader service card



Domore: Richard Reineman designed this line of ergonomically correct office seating in four models.
Circle 132 on reader service card
[Continued on page 92]



the ultimate challenge

Subject: the trading floor of the New York Stock Exchange.

Objective: complete re-design to increase the daily trading capacity from 50,000,000 to 100,000,000 shares, without disruption of trading.

As the architects of the Exchange, Bonsignore Brignati & Mazzotta recommended **Spec'built** for the manufacture of 14 modular trading posts, providing a total of 284 positions; to replace the original 22 horseshoe units. Their recommendation proved to be correct, since "**Spec'built** manufactured the trading posts in such a way that they could be pre-wired and installed over the week-end. The CRT's and superstructures were lowered into place from above and connected in time for the opening bell Monday morning. Everything was manufactured to the highest standards and delivered on schedule."

Spec'built with its team of engineers and draftsmen specializes in turning architect's and designer's sketches into finished products.

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People Technology

*Three diverse elements dynamically transforming
the world in which we work and live.*

*Each represents
a diversity of needs, expressions and functions.
Each interacts delicately with the others to maintain
a critical balance of social, environmental
and technological evolution.*

*To neglect any one of the three
is to limit our capacity for productive achievement.*

*Interior space solutions which reflect enduring values
and expanding aspirations
can bring people, space and technology together,
enabling people to live and work
at a critical distance to each other,
within a diversity of forms,
linking them to their hopes and dreams for tomorrow.*

*Hauserman represents a seventy year evolution
of products and services responding to human needs,
expressing enduring values
and supporting technological innovation.*

*People: at a critical distance
Space: a diversity of forms
Technology: linkage to tomorrow*

Space, Technology

Hauserman: Wall and panel systems enabling people to live and work together, delicately.

HAUSERMAN

*Visit our new Chicago showroom at Neocon,
designed by the internationally famous
architect Arata Isozaki.*

Suite 1012, The Merchandise Mart, June 15-18.

*The E.F. Hauserman Company
5711 Grant Avenue, Cleveland, Ohio 44105
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TODAY, YOUR CLIENTS EXPECT MORE. WOOL CARPET OFFERS MORE THAN THEY EXPECT.

Pure wool offers the best combination of features for design flexibility, durable service and long-term value.

Throughout its longer life span wool carpet maintains a higher level of its original appearance than any other fiber.

The resilience and durability of wool carpet are exceptional—they've been proven through the ages.

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Aesthetically 100% wool has no peer. Color, texture and comfort under foot are the values that make wool uniquely luxurious.

Visit the Wool Bureau Showroom during the Carpet Market and NEOCON and let us show you

why wool carpet offers you more than you expect.

We'll give you listings of the latest resources and carpet specifications, plus performance information to help you sell your clients on the most cost-effective fiber today.

Remember, the Wool Bureau Showroom is on the 11th floor of the Chicago Merchandise Mart, Space 11-113A!

AT NEOCON, WIN EXCITING "GREAT PERFORMANCES" PRIZES!

Grand prize: Beautiful, hand-knotted antique wool rug! Win this or one of many other "Great Performances" prizes. Get your entry forms at any WOOLMARK licensee carpet showroom.

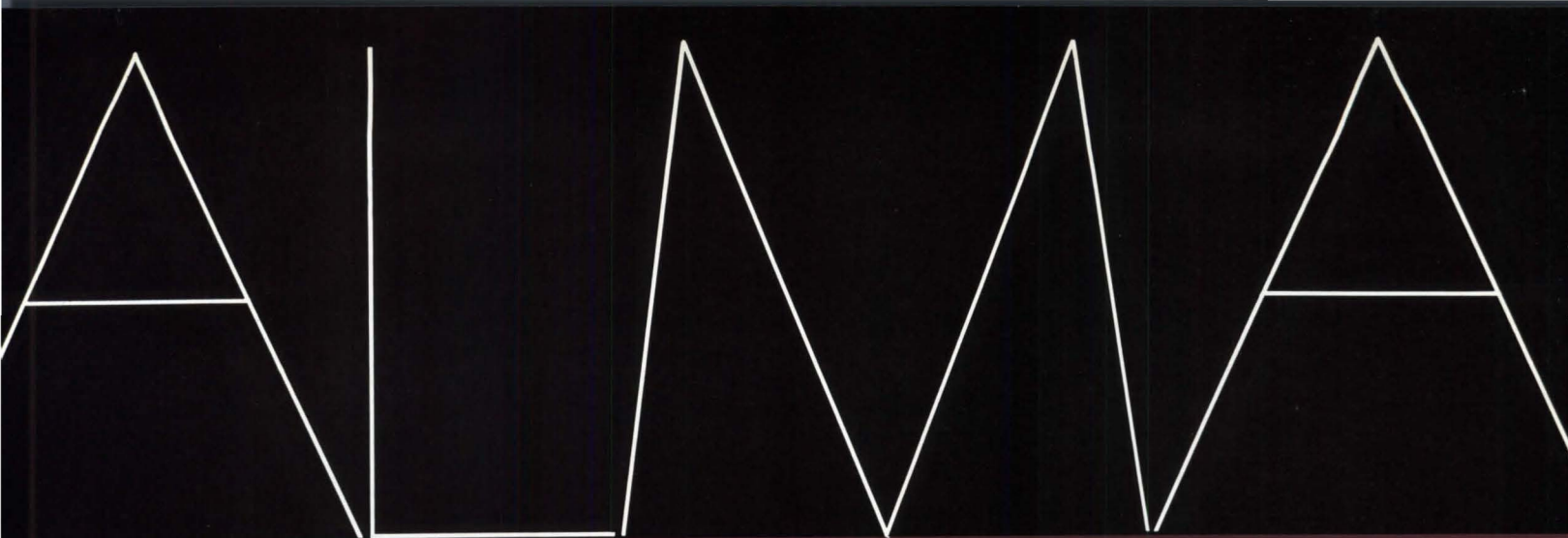
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Impressive ambiance in
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totally integrated electrical system.
Alma's AD open plan office
system; complete freedom
in design.

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Suite 200, Six Piedmont Center, Atlanta; 633 World Trade Center, Dallas;
Also in Houston, Kansas City, Seattle, Denver, San Francisco & Los Angeles.

neocon14

The Merchandise Mart
and Neocon International
Chicago

June 15-18, 1982

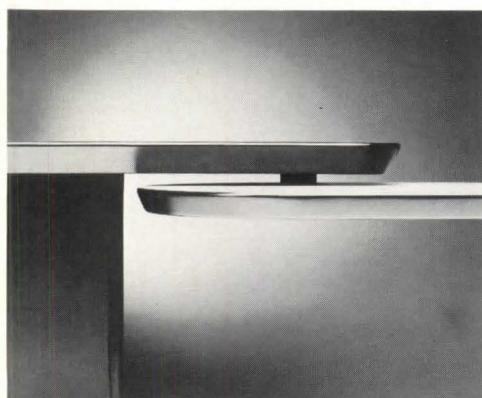
Continued from page 86



Fixtures: The "d chair" flexes with the body and stacks 45 high, comes in 16 shell colors and 5 frame finishes.
Circle 136 on reader service card



Gregson: The 3311 features double-doweled, glued, and fastened tenon joints, in oak or walnut finish.
Circle 140 on reader service card



Dunbar: The S4 Series is totally modular to fit the configurations of any office setting.
Circle 133 on reader service card



GF: The Polytrop Collection of task oriented chairs comes in five-leg bases of polished aluminum or color finishes.
Circle 137 on reader service card



Gunlocke: Alta seating comes in high-back or low-back swivel chairs and choice of attached pillows.
Circle 141 on reader service card



Empire State Chair: This chair of steam-bent beechwood comes with hand-stitched cane seat and back.
Circle 134 on reader service card.



Gilford: The imported Vescom Collection #17 is made up of 25 100 percent silk paper-backed wallcoverings.
Circle 138 on reader service card



Harter: Three series, the Stoll N, S, and H, feature 20 different models of chairs, all ergonomically correct.
Circle 142 on reader service card



Facit: A selection of human factor tables, seating, and accessories designed to interface with equipment.
Circle 135 on reader service card



Girsberger: "Girsberger Consens 2" for middle management is part of the Consens Series of 14 basic models.
Circle 139 on reader service card



Hauserman: The CAS line is designed to integrate with the Privacy Panel System in dimension and decor.
Circle 143 on reader service card
[Continued on page 98]



ikria

JG

Two thousand years ago, the Greeks designed seating for assembly areas which met essential needs. Today, the requirements of theaters, lecture halls, and similar spaces are more complex. Ikria is a seating system designed to fulfill these needs economically. Brochure available upon request.

Design by Dave Woods

JG Furniture Systems
A Division of
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Westinghouse

The open office system



Don't stop at our showroom

You'll see new designs in technical work stations and components for the electronic office.

The new Encore® Series Chair line that combines handsome design and improved comfort with exceptional value.

And a dynamic new fabric and trim color program.

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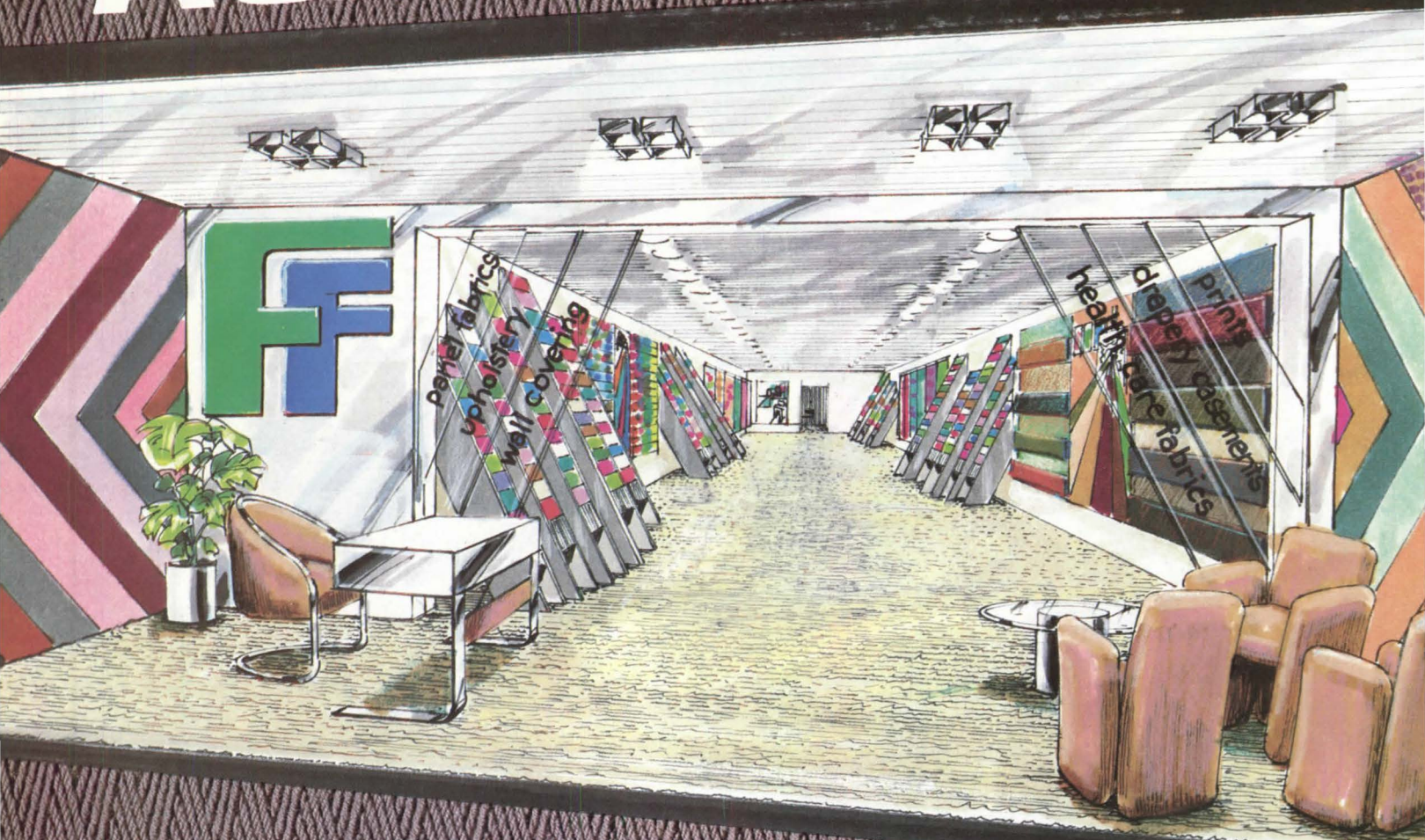
window. Come on in.

Next logical step? Stop in. You'll get a better perspective on everything you need for today's office—and tomorrow's.

**Logic leads you to Westinghouse. The Open Office System.
Suite #906, Merchandise Mart. NEOCON XIV, June 15-18.**

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878 A SPACE FOR YOU



CONTINENTAL BREAKFAST
8:30 AM-Noon June 15, 16, 17, 18

THE GIFT OF MUSIC

On Thursday, June 17th at 3 PM,
we will give a complete stereo system
to the holder of the winning ticket.
Stop by our showroom to register
for this drawing.

Du Pont
TEFLON
soil & stain repeller

Frankel Associates has created a space for you. A space for you to view a panorama of textures and the full spectrum of color in the highest quality upholstery, wall covering, drapery and health care fabrics.

We've created a space for you to share and ponder design concepts with people who like to participate in the creating of new ideas. A space for you to communicate with professionals who know that your design must include the practical factors of budgets and deadlines.

Please join us in celebrating this space during NEOCON.



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The Kimball Response

I'd like to take a minute to tell you about a special quality of our two companies, Kimball and Artec. It's special, because designers tell us very few companies possess it. It's our way of working with people.

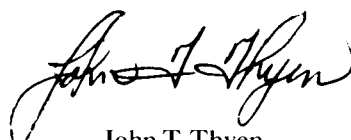
To begin with, we listen. Then we understand your needs by talking them out with you. Then...we respond. Quickly and professionally.

We've labeled this "The Kimball Response." We respond

to *what* you need, *when* you need it. We're not above digging in and coming up with a better solution or a better delivery date. I'm telling you this now... because you might need this responsiveness before you know it.

Come to see us at Neocon and check out "The Kimball Response"...and all that's new including our showroom, Space 825, 8th floor. Ask for *The Listeners*. We have something for you.

Sincerely,



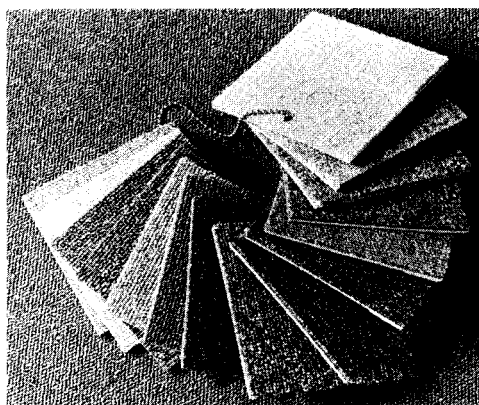
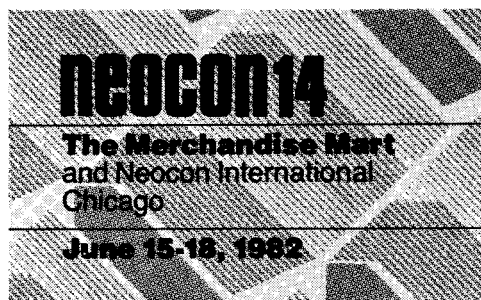
John T. Thyen
Executive Vice President
Kimball International

KIMBALL · ARTEC

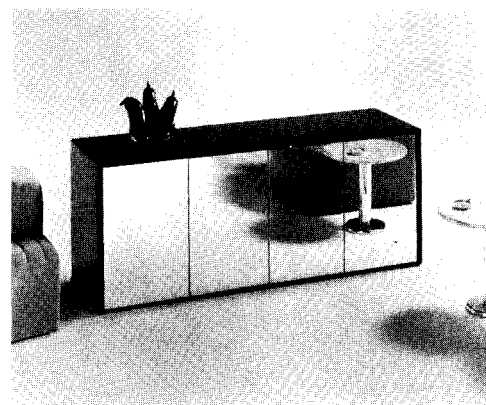
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Circle No. 378 on Reader Service Card

The Listeners

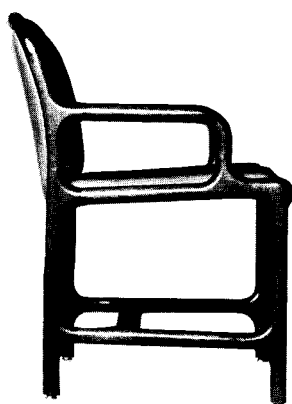


Heuga, USA: Gibraltar III, the carpet square for heavy commercial use, with low pile and 12 natural-toned colors.
Circle 147 on reader service card

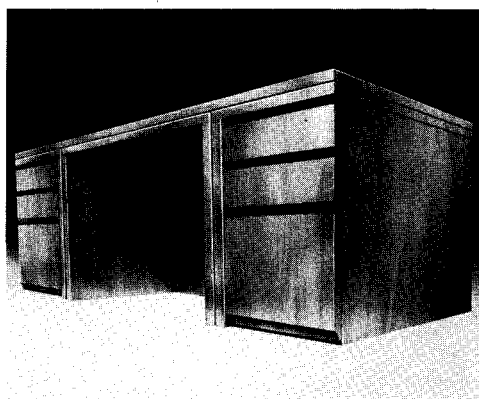


Intrex: The Katonah floor credenza has touch latch mirror doors with 14 color, 5 wood or 5 burl finishes.
Circle 202 on reader service card

Continued from page 92



Helikon: The Delphi chair, by Bob Becker, features a smaller scale, low arm, and slender side rail.
Circle 144 on reader service card



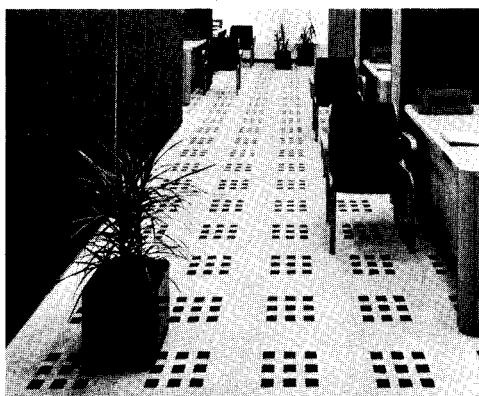
ICF: The Pinstripe family of desks, designed by the Walker Group, in various executive and secretarial sizes.
Circle 148 on reader service card



JG: The Mobile Terminal Table is one of several terminal-sharing devices that move and adjust to different users.
Circle 203 on reader service card



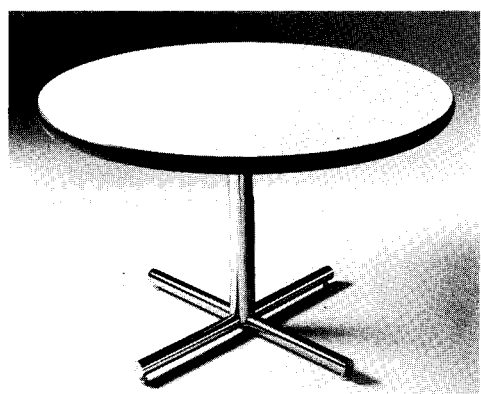
Hiebert: The Radius Edge Table Desk, lateral drawer files, and open storage create a total workspace.
Circle 145 on reader service card



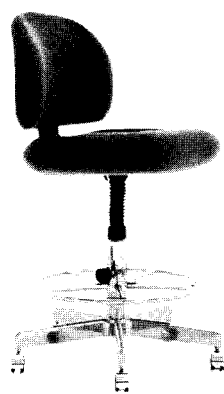
Interface: This modular carpet tile flooring system free-lays on the floor and is easily lifted for replacement.
Circle 200 on reader service card



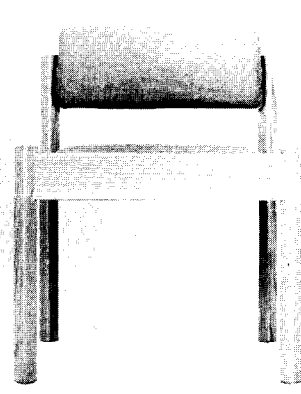
Karastan: The Medallion Serapi Design Rug is part of the #700 series of Orientals recreated from antiques.
Circle 204 on reader service card



Howe: The dual purpose 1400 series Tempest Table creates a meeting room/cafeteria in minutes.
Circle 146 on reader service card



InterRoyal: This technician's swivel stool is from the 5000 Series of Intergo office seating.
Circle 201 on reader service card



Kimball: The Diamond Chair is stackable and features a unique 45-degree angle leg-to-frame for strength.
Circle 205 on reader service card
 [Continued on page 104]

HighTower



When importance of the work environment is as important as the work itself.

R-Way presents the HighTower
in a wide variety of configurations
to create a fully integrated office environment.

The HighTower is ideal for all levels of office functions,
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Our colors

Their colors

Badische is the only fiber producer that manufactures pre-colored nylon and acrylic yarns for contract carpet.

The advantage to us is complete control over the quality and color of our products. The advantage to you is easy access to the industry's most extensive inventory of colored contract carpet yarns to help you select the exact colors you want. Only pre-colored yarns virtually eliminate side-to-side and end-to-end color matching problems. Our yarn banks contain hundreds of pre-colored spun nylon and acrylic blend yarns which can be plied into millions of shade combinations. As industry leaders, we revise our colors often to reflect the latest trends—so you can always coordinate your carpet colors with the newest contract furnishings.

Badische...The Contract Specialists

Call your Badische Contract Carpet Consultant for more information and free specifying help.

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Southwest Area	William Borges	(214) 352-2324
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Southeast Area	Julienne Hillyer	(404) 424-9100
Mid-Atlantic Area	Sharon Mohney	(804) 887-6441
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When your eye says beauty, but logic demands performance...

Anso IV makes a carpet more beautiful...and keeps it fresh and newer looking far longer. Anso IV dyes deeper than other nylons so colors are sharp and clear. And they stay that way with no spray-on protective coating to dull them. Styling is rich and beautiful, patterns crisply defined; in all lusters, deniers and finishes.

Anso IV actually resists soil, spills and stains others try to hide. Only Anso IV offers built-in, 4th generation protection to make routine care faster and more effective, improve appearance retention, postpone cleaning and reduce maintenance problems and costs. No other contract nylon can match its effectiveness. Don't settle for less than the best!



Project: University of Minnesota-
Duluth

Carpet Mill: Bigelow-Sanford

Fabric: Pebblepoint

Color: Coffee

Designer: Bill Moser
Architectural Resources

Dealer: Commers Interiors

Project: Bankers Trust Company
Headquarters, New York

Carpet Mill: Gulistan

Fabric: New Generation IV

Color: Cedar

Designer: Designer Group
Bankers Trust Company

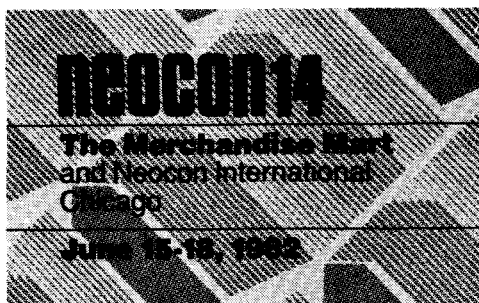
Anso[®] IV
ALLIED CORP. NYLON

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made all other carpet fibers obsolete.

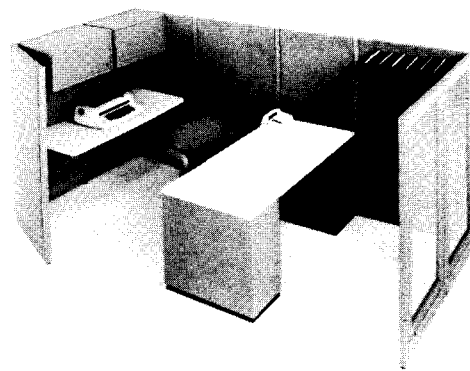


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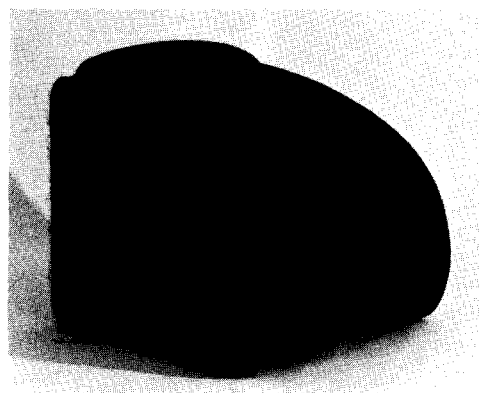
Circle No. 302 on Reader Service Card



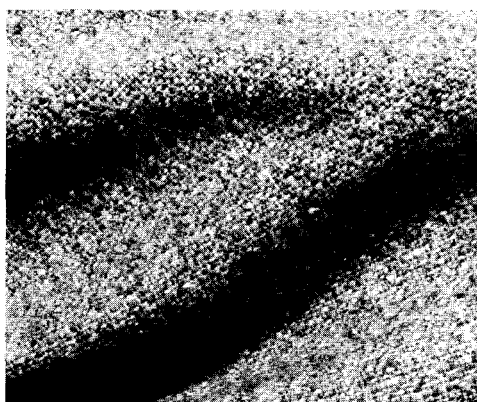
Krueger: Dorsal Seating by Emilio Ambasz and Giancarlo Piretti incorporates automatic articulating backrests.
Circle 209 on reader service card



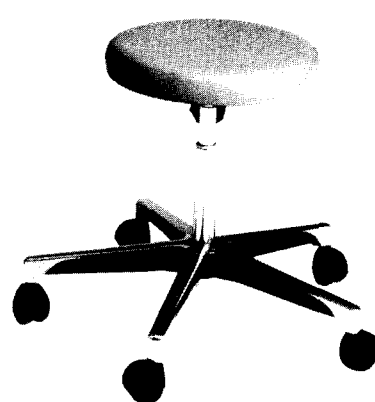
Litton Business Furniture: This power and communications panel utilizes three separate 20-amp circuits.
Circle 213 on reader service card



Kisabeth: From the John S Collection comes the Técon, in one-, two-, or three-seat pieces.
Circle 206 on reader service card



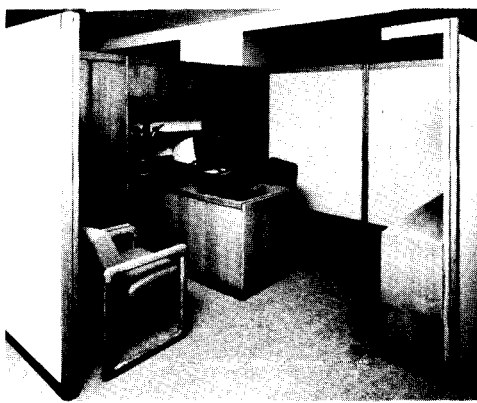
Lee-Jofa: Available in five soft neutral colorways, Nara is part of the COM collection from Liechtenstein.
Circle 210 on reader service card



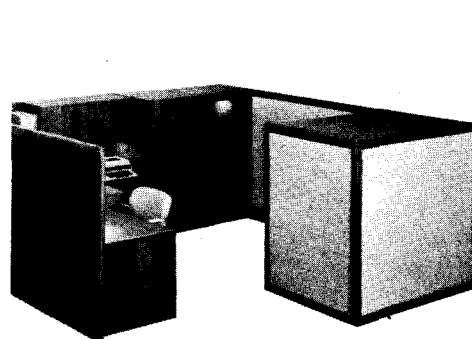
Loewenstein: A spring-loaded seat shaft prevents bottoming in this swivel stool with dual-wheel safety casters.
Circle 214 on reader service card



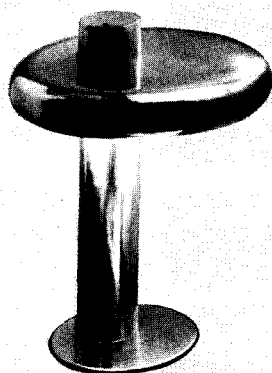
Knoll: Bill Stephens designed the Stephens Executive Chair to combine ergonomics with softness of form.
Circle 207 on reader service card



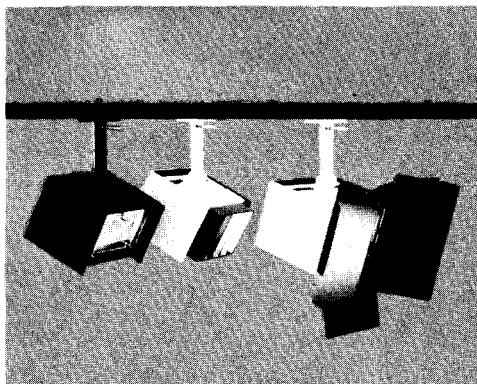
Lehigh-Leopold: The new manager's work station has a slide-out drawer that hides the detachable CRT keyboard.
Circle 211 on reader service card



Lunstead: The MatrixSystem is a furniture approach to the open office plan; in three heights.
Circle 215 on reader service card



Koch + Lowy: The Fluorescent Floor and Table Lamp Series features "easy-on-the-eye" task lighting.
Circle 208 on reader service card



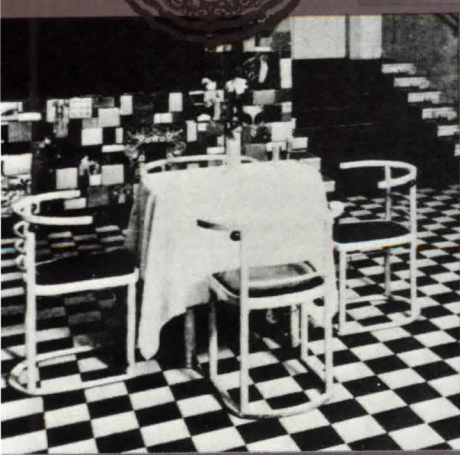
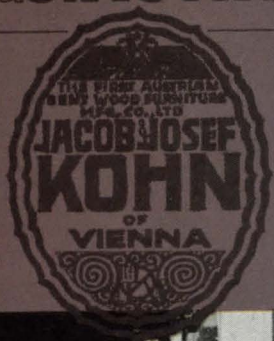
Lightolier: The Adjustable Power Flood is from the Lytespan Collection, with an anodized aluminum reflector.
Circle 212 on reader service card



Madison: ReActa's construction features a two-piece articulated shell and special isometric controls.
Circle 216 on reader service card
[Continued on page 110]



THONET
MUNDUS
J.&J.KOHN



Good performance as well as good design deserve an encore. And so Thonet applauds the *Fledermaus* table and chairs, designed by Josef Hoffmann, which are the second in Thonet's series of classic reintroductions. Taking their name from the Viennese cabaret for which they were designed, the *Fledermaus* grouping was originally produced in 1905 by the J & J Kohn firm which later merged with Thonet.

Made from American elm, these designs represent Hoffmann's inclination for adding a geometric dimension to his furniture. Table surface selections include marble, leather, fabric, vinyl or laminate. A base level brass ring is optional.

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equipment used today. It adapts beautifully to the varying dimensions of people and equipment, offers comfortable eye-to-screen and hand-to-keyboard relationships and can be fine-tuned to support an almost infinite variety of tasks. No other systems furniture gives you so much to work with in meeting the demands of today's business.

Ultronic 9000. Uniting people and electronic equipment in ways that enhance the potentials of both.

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Steelcase

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great to have a simple self-adjusting
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responds to all needs, providing healthful
support and unmatched comfort in
any position. Constant manipulation of
controls is unnecessary. Available in
pedestal base models, stools, tandem
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Tilt forward



Relax



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State-of-the-art
in modular carpets

The universal
carpet backing system

1814 MERCHANDISE
MART • LEES CARPETS



Lees presents the state-of-the-art in carpet tiles

Most carpet tiles will look good in the carton. If you need to know how they'll perform on the floor, be sure to read the warranty.

Guaranteed. Lees backs its modular carpet system with a comprehensive warranty, written in plain English. No manufacturer of carpet tiles goes as far to guarantee performance satisfaction.

Construction. Unibond® back bonds face yarn and backing materials into a single component. Hot-melt thermoplastic resins and flow-on lamination produce modular carpets that are guaranteed against edge ravel and delamination.

Test data. Lees tests its modular carpets for smoke generation and flame spread. This important data is published and readily available for review.

Advanced generation. As long ago as 1967, Lees made rubber-backed carpet tile for the educational market. Later versions utilized a hard vinyl back. The present Lees carpet tile is an advanced generation product that fits a vastly improved modular carpet system.

Appearance. Antron® III nylon pile yarns by DuPont are dirt-resistant and static-protected. Superior appearance retention reduces maintenance costs.

Coordinates. Plain and patterned modular carpet fits a system that includes broadloom coordinates in identical construction. Visual flow is continuous, uninterrupted by breaks in surface texture.

Installation. Most "loose lay" carpet tiles never get loose laid, but are glued down instead. Why? Ask the installation contractor, the man who would be responsible for the job if anything were to go wrong. Lees provides a fast, clean money-saving pressure sensitive adhesive for use with its modular system.

Call toll-free. For test data, specification information, call 800/523-5647. From within Pennsylvania, call collect 215/666-9426. Or write for illustrated brochure.

Lees. The Contract Carpet Company.

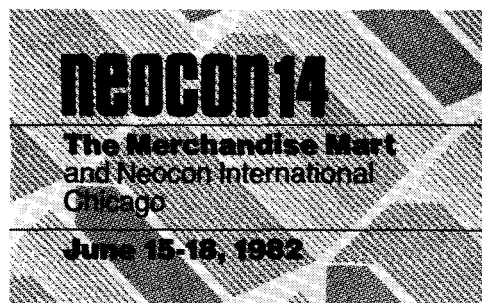
Live the life of Lees at work and at home.

LEES carpets

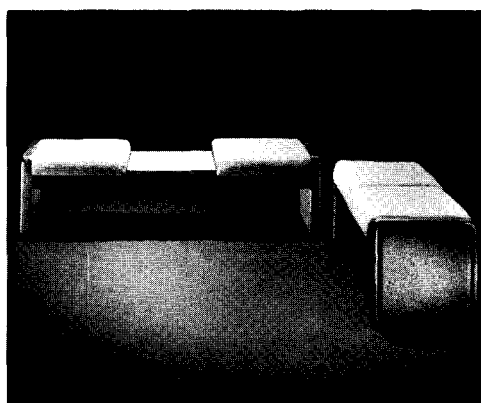


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King of Prussia, PA 19406

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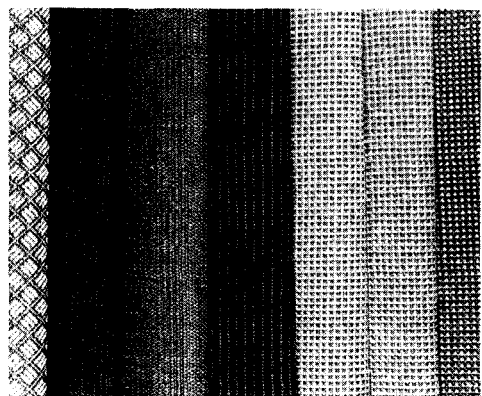
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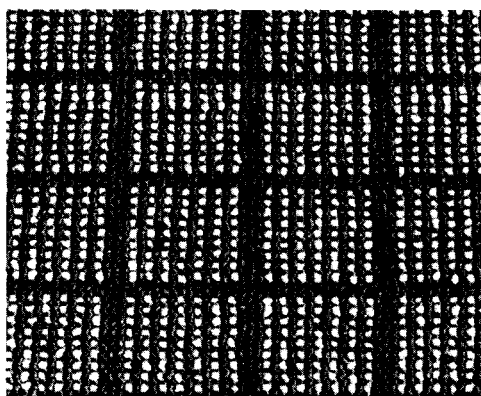
Modern Mode: These two benches are part of the Cherner seating pieces, in shell frame or upholstered.
Circle 220 on reader service card



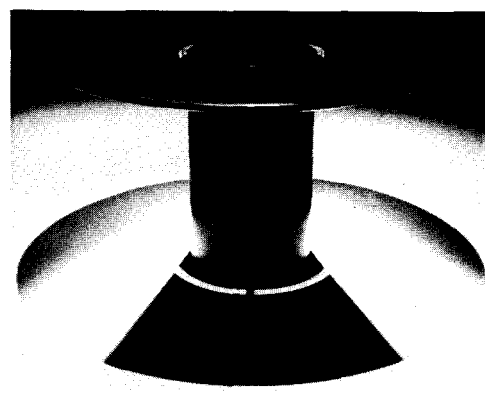
Precision: System 9 panels offer a complete range of components and cabinetry for the open plan office.
Circle 224 on reader service card



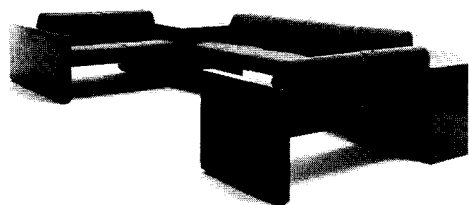
Maharam: The Nylon Series offers five color and weave patterns, each with a "tailored" look, in 156 combinations.
Circle 217 on reader service card



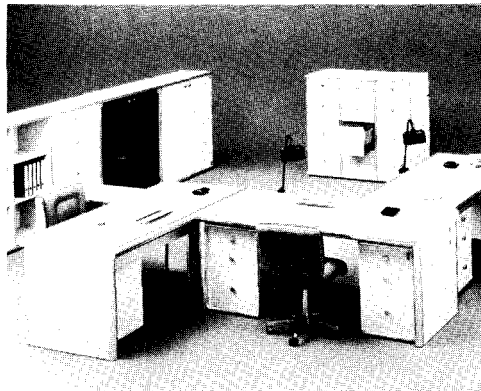
Mohawk: The 1981 IBD Award winner, Baronial Plaid is made in crush-resistant Woven Interlock grade.
Circle 221 on reader service card



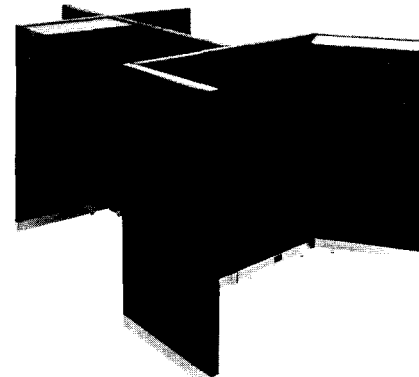
Harvey Propper: The Saturn Table is available in round and square tops, cocktail and conference heights.
Circle 225 on reader service card



Metropolitan: Designed by Jay Heumann, Aptus 2 is a modular on-site recoverable seating system.
Circle 218 on reader service card



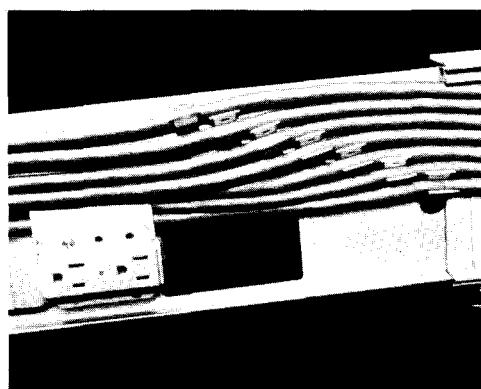
Pace: The Operativa Series desk and cabinets' laminate structure is profiled by high-polished metal drawers.
Circle 222 on reader service card



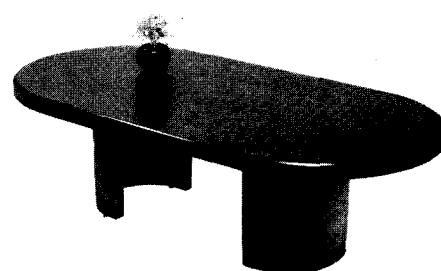
Rose Manufacturing: The Progressions Panel System is designed to be compatible with existing offices.
Circle 226 on reader service card



Herman Miller: The Kevi chair, designed by Jorgen Rasmussen, comes in six styles of "work chairs."
Circle 219 on reader service card



Panel Concepts: The IMPAC System brings more flexibility to the open plan office system.
Circle 223 on reader service card



Rose Johnson: This freestanding credenza is available in light or dark oak, pedestal and tambour door options.
Circle 227 on reader service card
 [Continued on page 116]

pace[®]



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Howard Hershberger to answer for its customers. His response is "An Introduction to Halogen Lighting," an invaluable brochure outlining halogen's advantages, and featuring a selection of halogen lighting from Artemide.

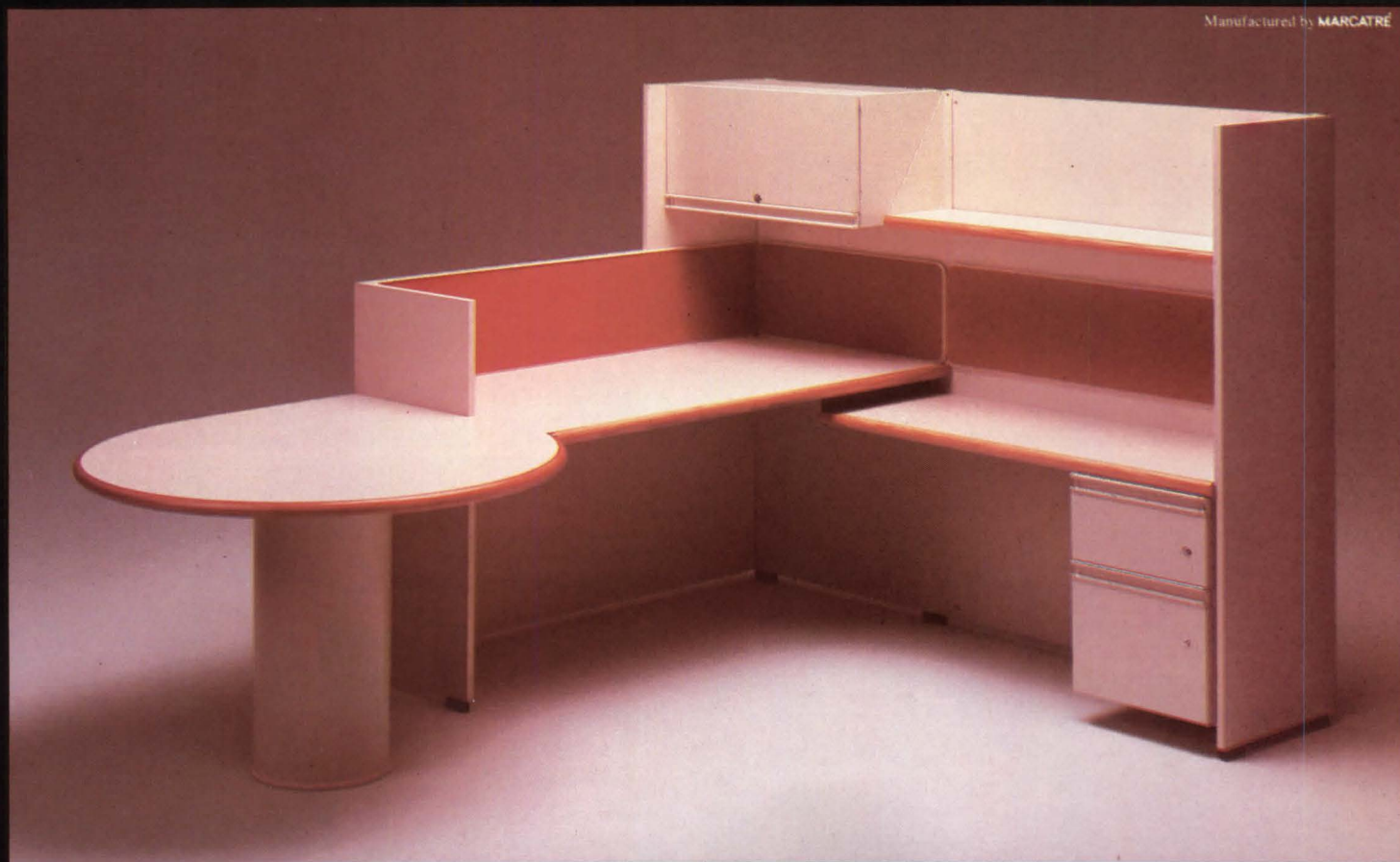
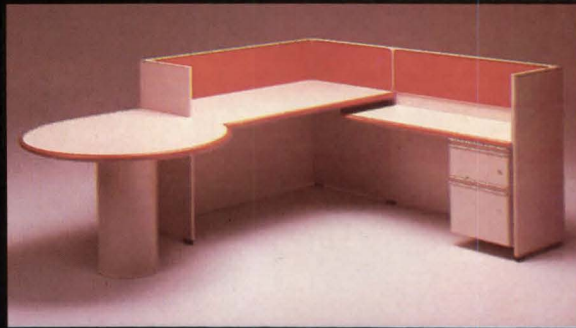
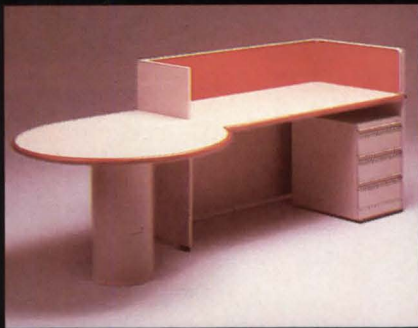
"An Introduction to Halogen Lighting" belongs in every specifier's library. To receive your copy, visit space 851 at Neocon, or circle number 309



NEOCON 14

Artemide

**Once you have it,
no matter how you change it,
you never have to change it.**



With Marcatre, every addition attaches to the basic unit as is. You have none of the unexpected hassles that usually crop up with other furniture systems.

Add a conference round in minutes as the need arises, saving valuable floor space.

Double a work surface, expanding it left, right, forward, or backward.

Add a front panel the exact height for the exact amount of accessibility

and interaction desired. They vary anywhere from short for privacy with visibility to tall for complete privacy.

At a surprisingly affordable price, Marcatre is as beautiful as it is functional. The acclaimed Italian architect, Mario Bellini, has designed Marcatre in Roman oak veneer combined with gray, white, or beige laminates.

It's truly a fine furniture system that works. After all, fine furniture is

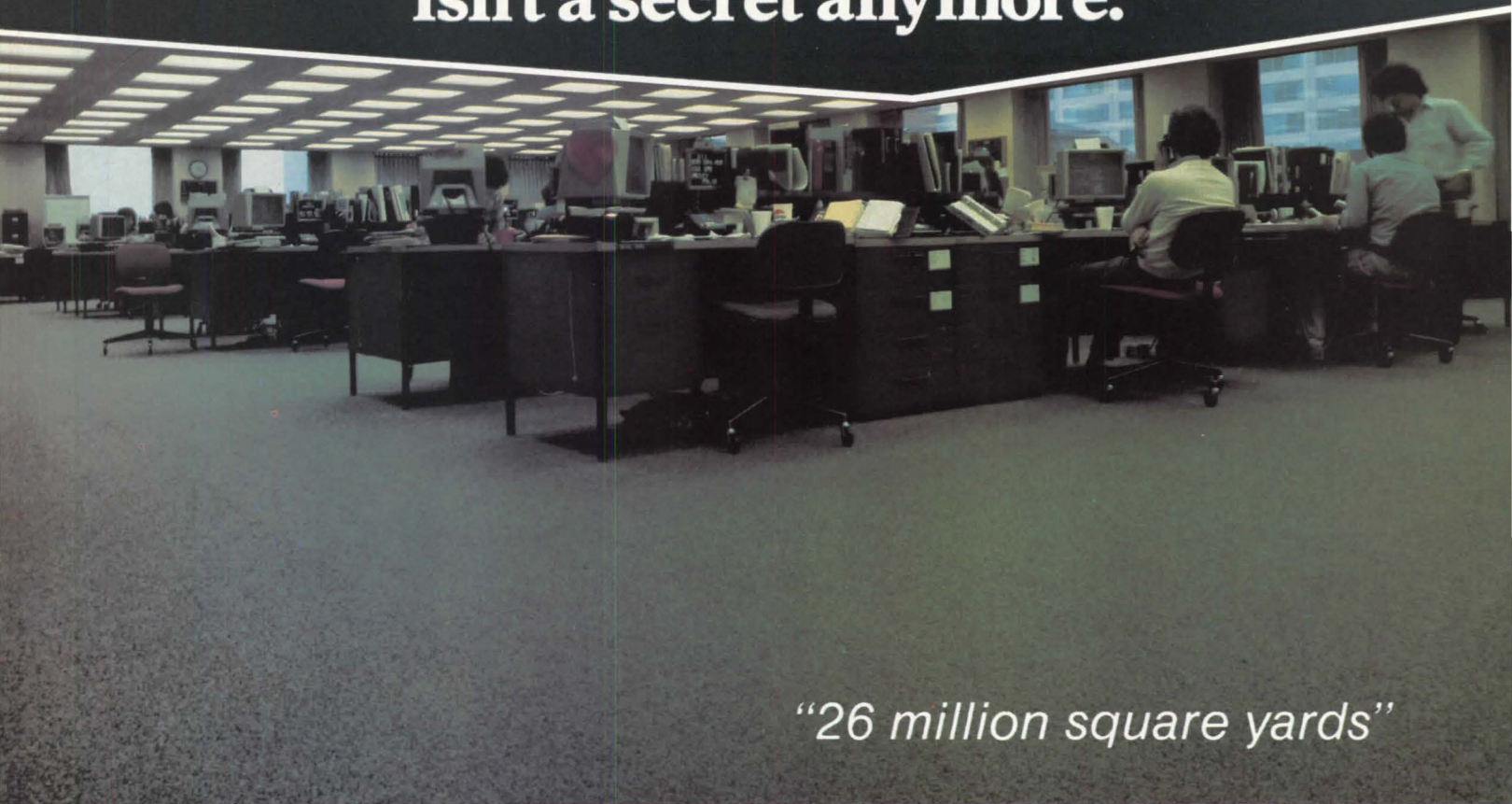
what ai is known for. And, as with Marcatre, the more things change, the more they are the same.

For more information about Marcatre write or visit Atelier International, Ltd., 595 Madison Ave., New York, New York 10022. Phone (212) 644-0400. Additional showrooms in Chicago, Dallas, Houston, Los Angeles, and Seattle. Member ASID, IBD, BIFMA.

ai

Mohawk Woven Interlock

The world's best kept secret... isn't a secret anymore.



"26 million square yards"

Nine years ago Ohio Bell Telephone installed 40,000 square yards of Mohawk Woven Interlock carpet. Today, nine years later, the same carpet is still in service performing well. During that nine year period Ohio Bell Telephone has continued to specify and install Mohawk Woven Interlock carpet in many of their facilities from offices to cafeterias, from engineering departments to switching centers...Mohawk Woven Interlock carpet continues to perform.

The last word in proven performance.

Mohawk Woven Interlock has quietly been proving itself to be the toughest, most durable carpet construction ever. Starting with Mohawk's famed Duotron, over 26 million square yards have been installed over the last ten years. It's become today's performance leader for all kinds of heavy traffic areas. And it's the number one specified carpet for schools.

The reason is simple. Mohawk's Woven Interlock heavy duty construction is a superior construction. The pile loops are coiled like springs in opposite directions, springing back after each step to defy crushing and matting. Backing and face yarns are totally interlocked to eliminate the problems of snagging, running and delamination.

But outstanding performance isn't our only advantage.

The latest word in sophisticated design.

When the 1981 IBD awards came out, only one broadloom carpet was recognized for

excellence in design, Baronial Plaid from

Mohawk. The construction—Woven Interlock.

Get the complete facts on Mohawk's Woven Interlock products. Contact your local Mohawk representative today.



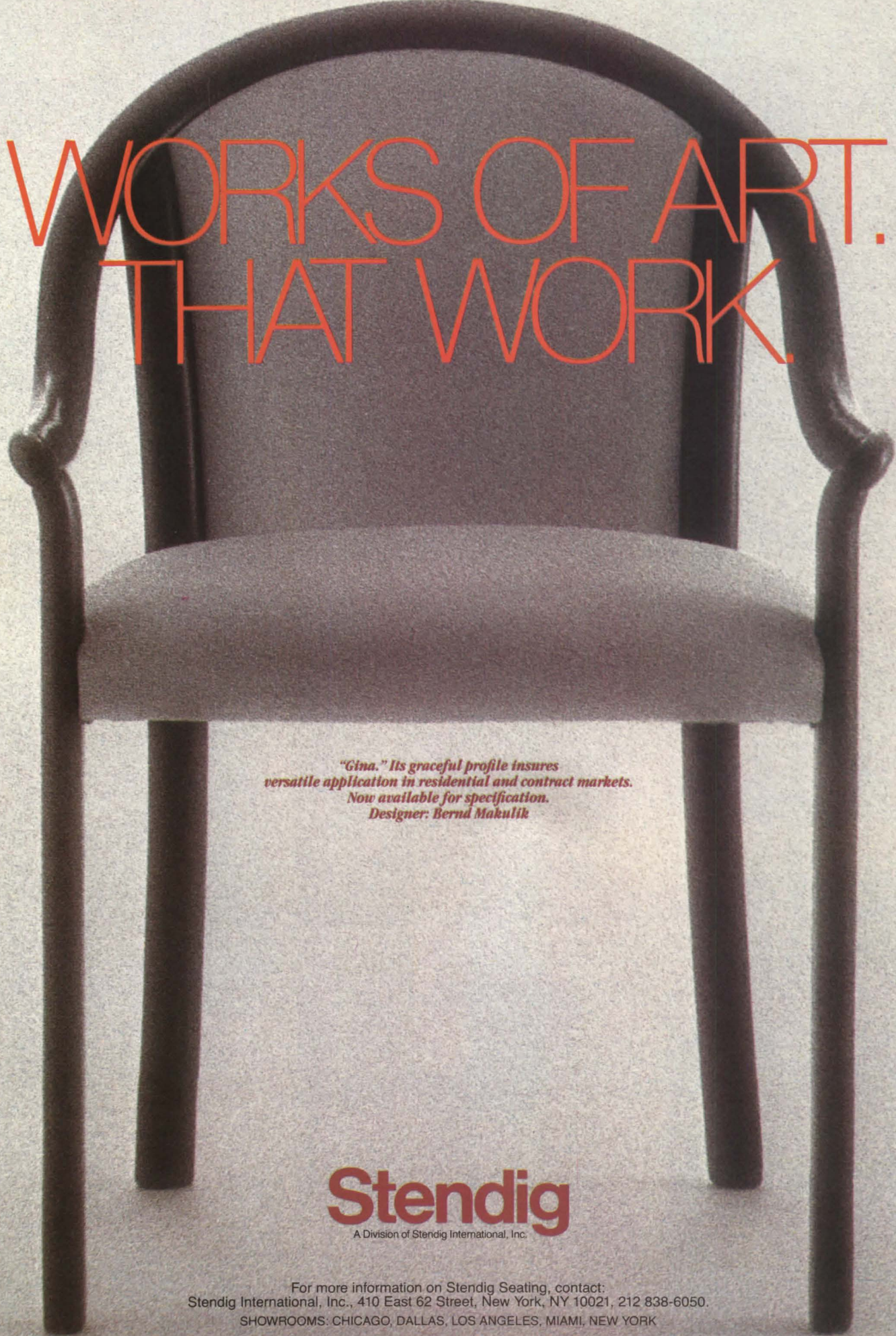
Carpet: IBD award winner, Baronial Plaid. Installation: Rax Roast Beef restaurant, Columbus, Ohio.



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*"Gina." Its graceful profile insures
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Now available for specification.
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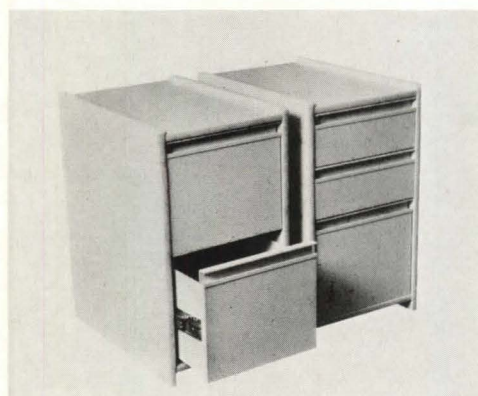
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NEOCON 14

The Merchandise Mart
and Neocon International
Chicago

June 15-18, 1982

Continued from page 110



Rosemount: This box-style drawer assembly is flexible so it can be moved anywhere in the office.

Circle 228 on reader service card



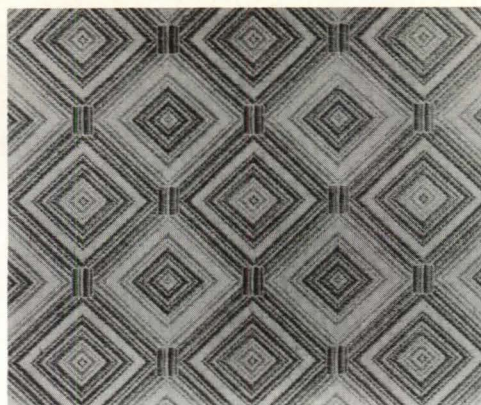
Rudd: Cyborg chairs include a "Control Module" of three pneumatic cylinders and one recycling, active cylinder.

Circle 229 on reader service card



R-Way: Hightower is constructed of Alba oak veneer and finished with natural or walnut color.

Circle 230 on reader service card



Scalamandré: Gypsy is a Jacquard weave of 58 percent wool, 42 percent cotton, in three Oriental colorways.

Circle 231 on reader service card



Schafer Bros.: The Sitag Swissform Collection offers 10 basic interrelated models with 63 design variations.

Circle 232 on reader service card



Schumacher: Ultra Mohair is a velour imported from Germany which is soil resistant and wrinkleproof.

Circle 233 on reader service card



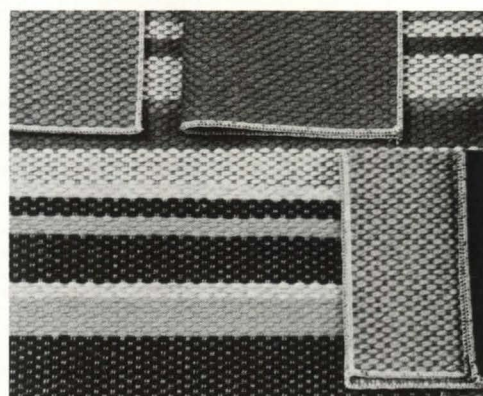
Scope: The GBT Table series is handcrafted of solid bronze and Paradiso marble, glass, marble, leather, or wood.

Circle 234 on reader service card



Shelby Williams: The 5600 rattan side chair has a petal back motif and a foam-padded spring seat.

Circle 235 on reader service card



Sinclair: Wool-Tex comes in 10 colorways of Teflon-finished wool and nylon with acrylic backing.

Circle 236 on reader service card



Spec'Built: The complete executive office can be customized to the designs of architects, specifiers, and designers.

Circle 237 on reader service card



Steelcase: The Arrondi line of Bentwood chairs comes in a variety of sled bases and pedestals in natural wood.

Circle 238 on reader service card

[Continued on page 122]



Knoll Textiles On Steelcase

On Steelcase? Absolutely.

Steelcase is one of the largest users of Knoll Textiles. With good reason.

Knoll Textiles in the 1980s is leading the industry in a major color change. There are 923 colors in Knoll's textile collection. (Steelcase has about 325.) And all of Knoll's textiles are competitively priced.

The exquisite textiles of Knoll on the office furniture of Steelcase. We can think of only one better combination.

Knoll on Knoll.

Knoll Textiles, A Division of Knoll International,
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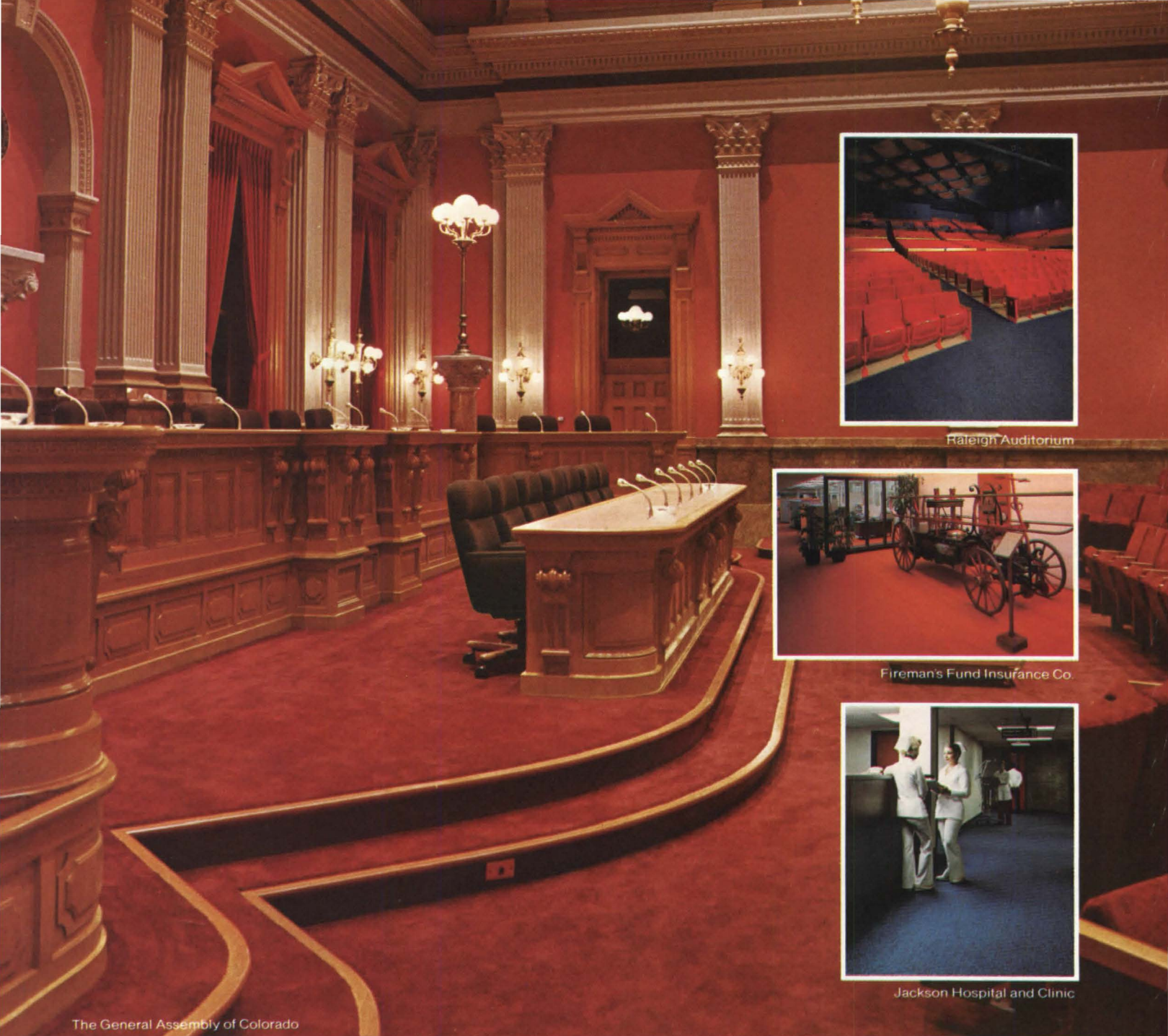
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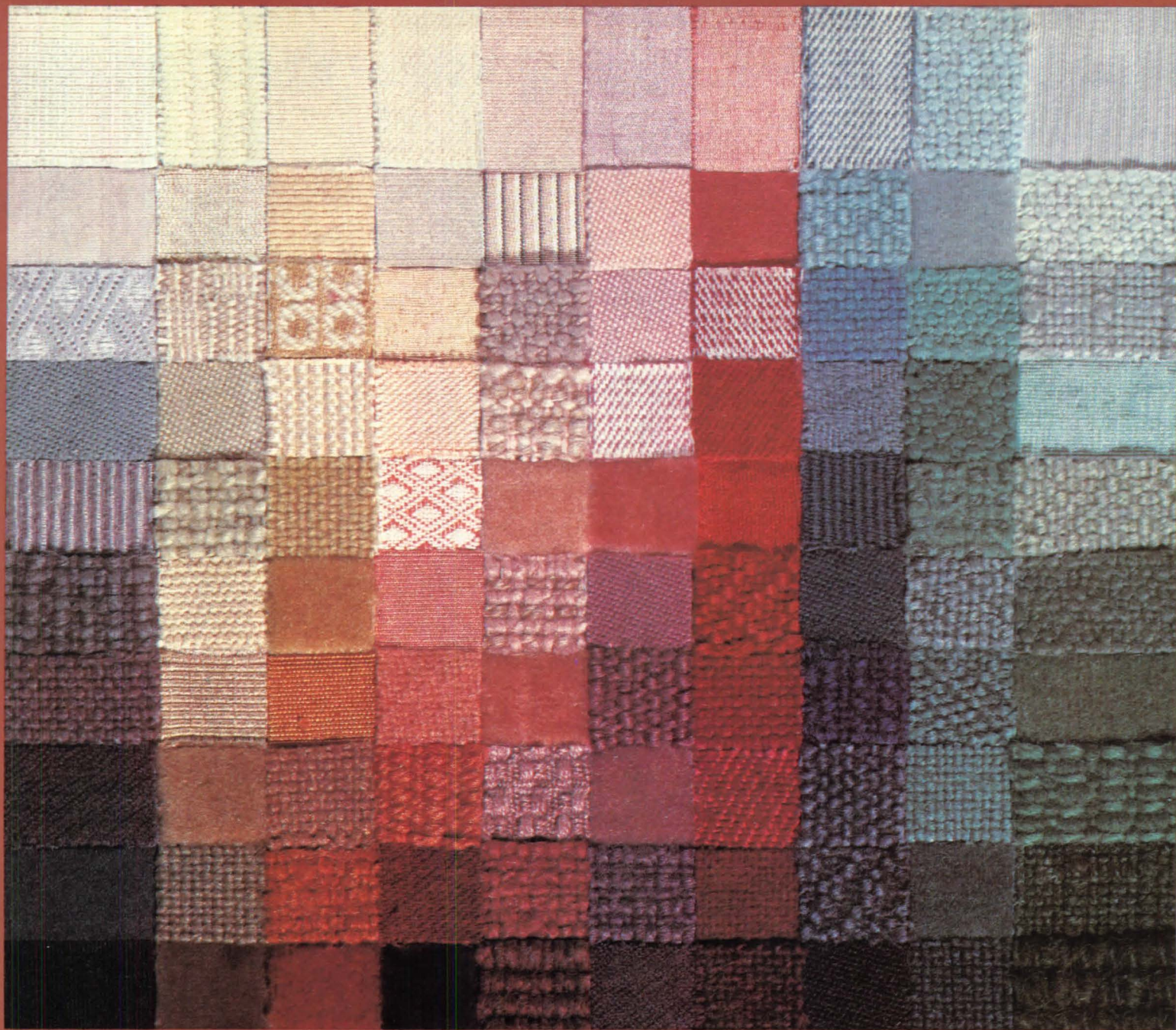
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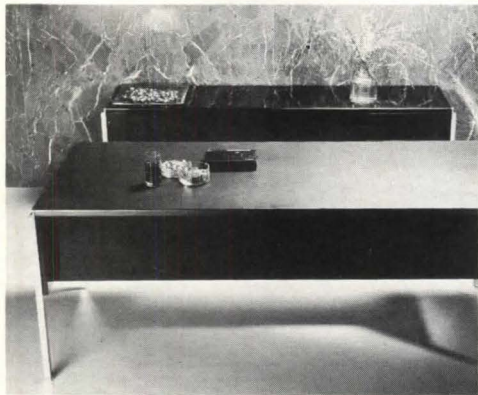
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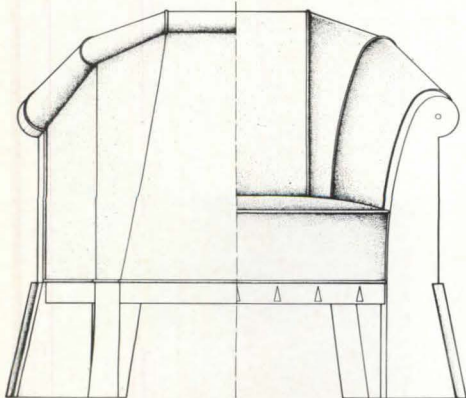
Stendig: The Eterna armchair is a classic design in chrome and leather; also in a side chair and stool.

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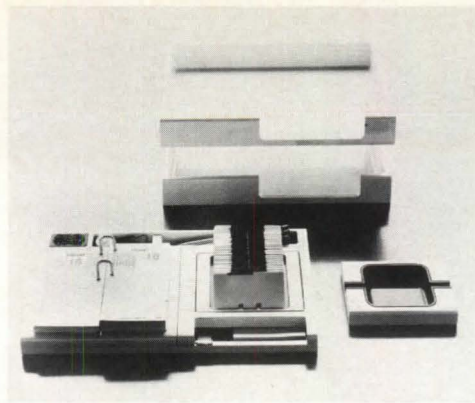
Stow/Davis: The Electa desk with bottle-green leather top, Chinese black lacquer finish, mirror chrome frame.

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Vecta: The Wilkhahn 82 Table comes in walnut veneer top with polished aluminum base, black tubular steel column.

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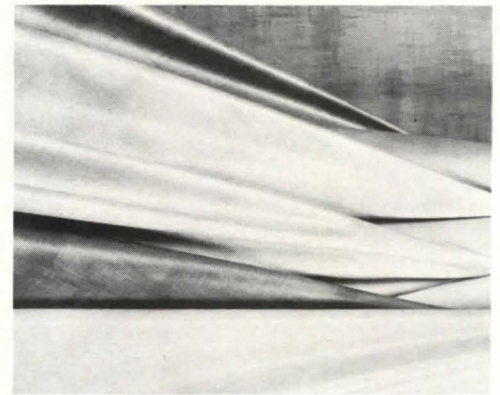
V'Soske: Water Reflections, a pattern in a combination of textures, can be shaded to specifiers' requirements.

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Wool Bureau: Contract wool upholstery by Counterpoint Fabrics; chair by Vladimir Kagan.

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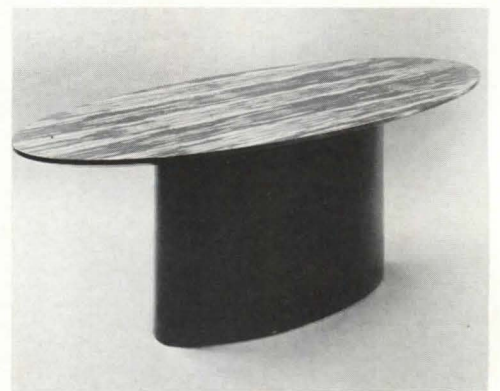
Zumsteg: Shadow is a glazed chintz, 50 in. wide with a 25½-in. repeat in six colorways of 100 percent cotton fabric.

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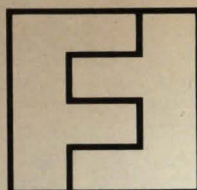
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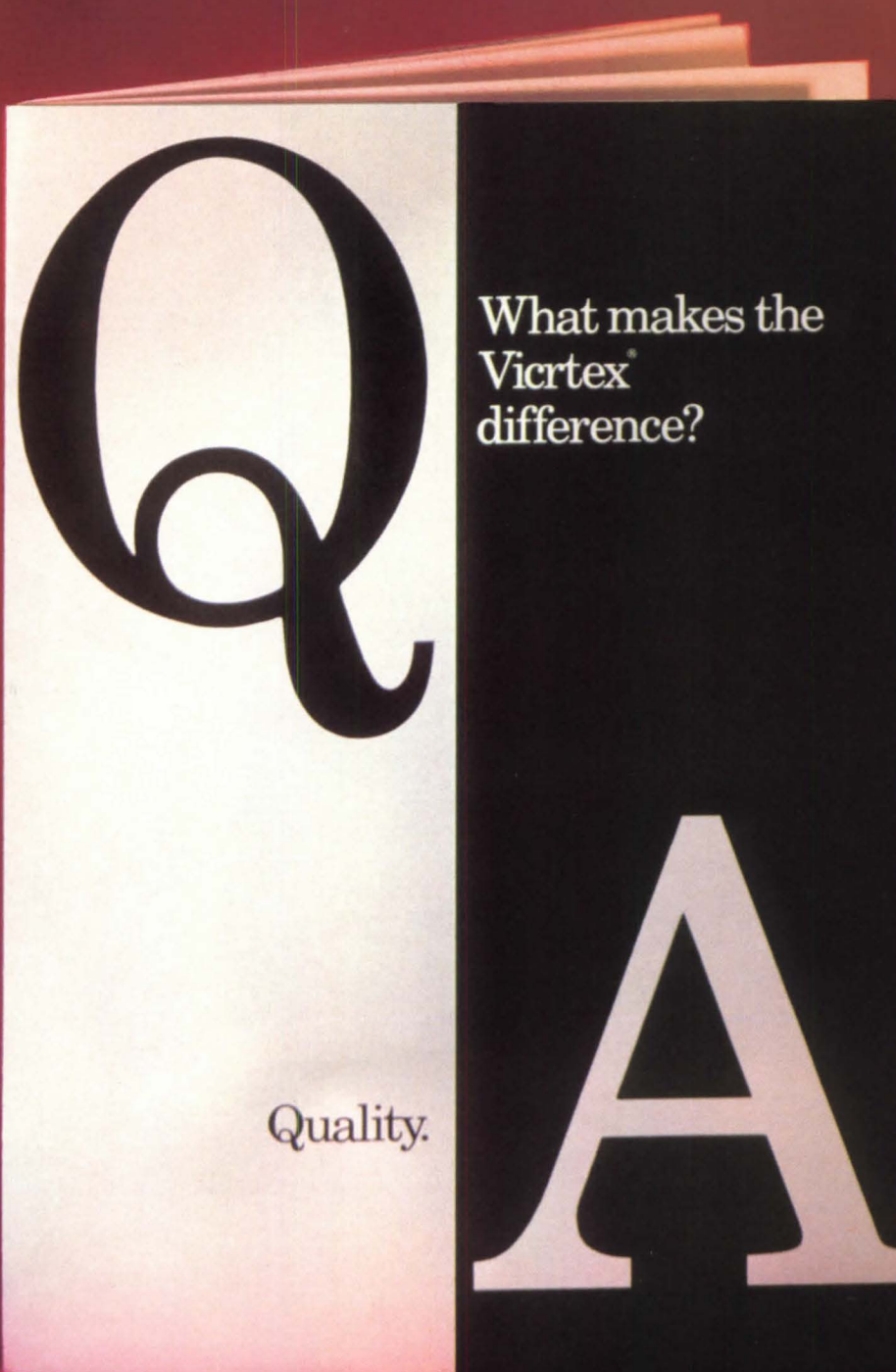
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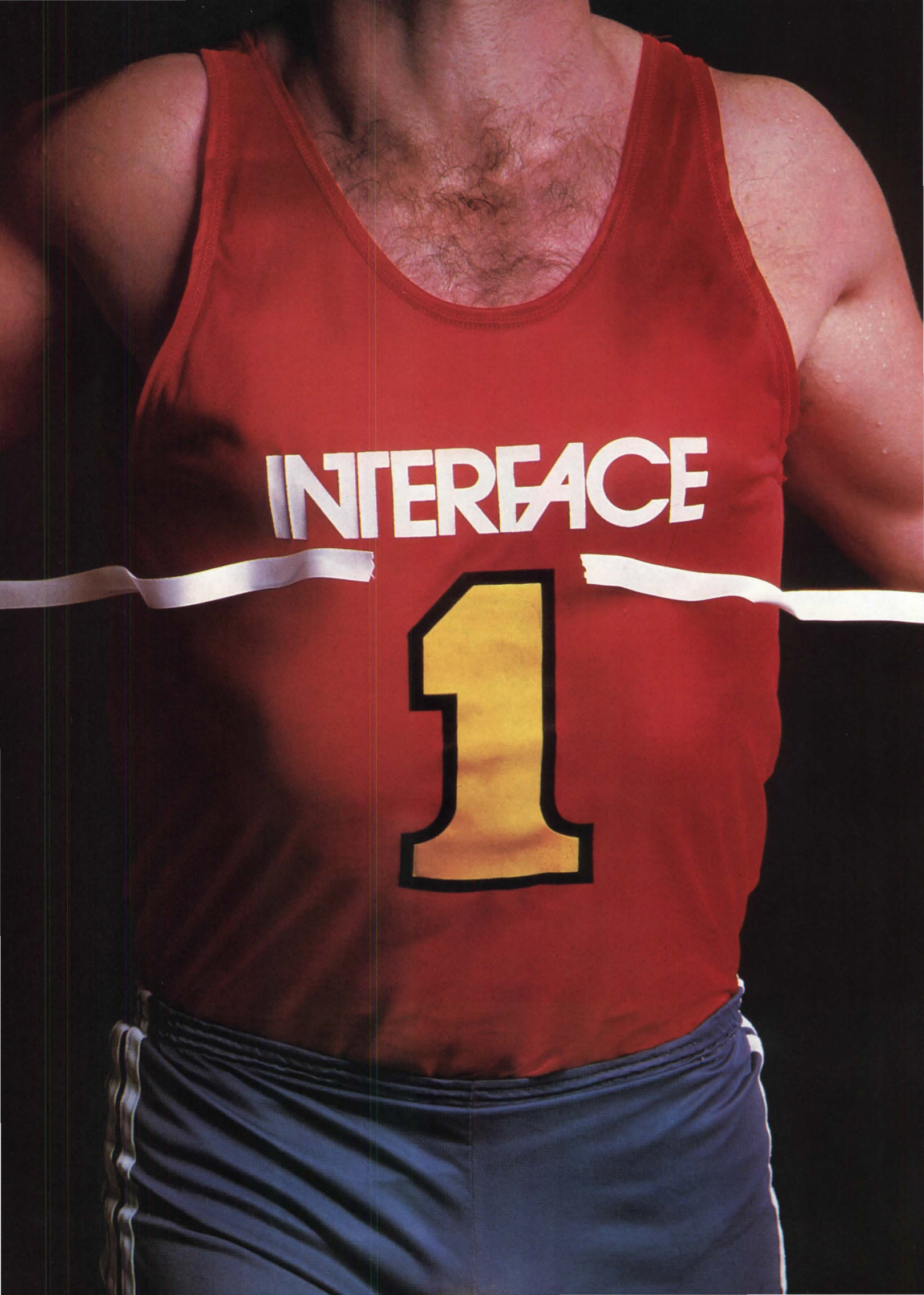
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The architecture of death

Why should an architecture magazine devote a large number of pages to the subject of death, which many people do not even care to think about? The reason, simply, is that more and more people *are* thinking about it. With recent advances in nutrition and medicine, coupled with a significant drop in the birth rate and at least three generations without global war, the world's population is now proportionately older than it has ever been. One result of this is the increasing rejection of current attitudes toward death, which are unique to modern times in the view of dying as a solitary medical procedure that takes place in clinical surroundings attended by strangers. More and more people now choose to die at home among loved ones or in the comfort of a growing number of hospices.

The changing attitude is also reflected in an expanding body of literature over the last decade, which has recently seen the addition of such works as Philippe Ariès's *The Hour of Our Death*, Elisabeth Kübler-Ross's *Living with Death and Dying*, and David Hendlin's *Death as a Fact of Life*. Relating the subject directly to architecture, in 1980 Scribners published James Stevens Curl's *A Celebration of Death: An Introduction to some of the buildings, monuments, and settings of funerary architecture in the Western European tradition*. Soon, the MIT Press will publish *Cities of the Dead: From Charnel House to Elysium in 18th-Century Paris* by Richard Etlin, the author of our opening article.

As death emerges from the private realm into the public realm where it traditionally had been, it might regain the important position it once had in architecture. Works such as Aldo Rossi's Modena Cemetery, which has become renowned in drawings and is now in construction (below right), and the other projects in this issue seem to point the way. [David Morton]



D. Morton

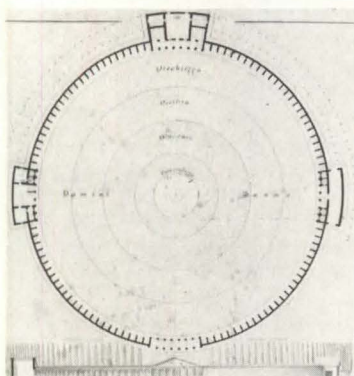
A mausoleum in Cimitero Monumentale in Milan (above), and Aldo Rossi and Gianni Braghieri's structures for cinerary urns at Modena Cemetery (below).



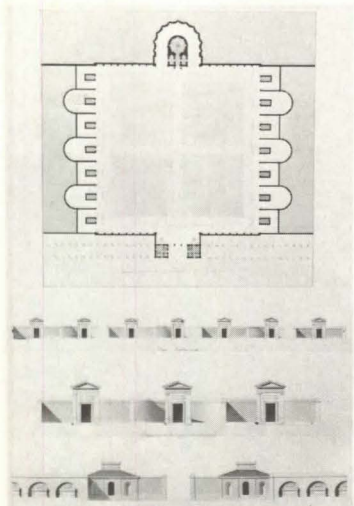
The geometry of death

Richard A. Etlin

The design of European and American cemeteries became formalized following the Enlightenment. The five basic types that were to emerge are outlined here to provide a historical setting to the presentation of recent work, on both sides of the ocean, which then follows.

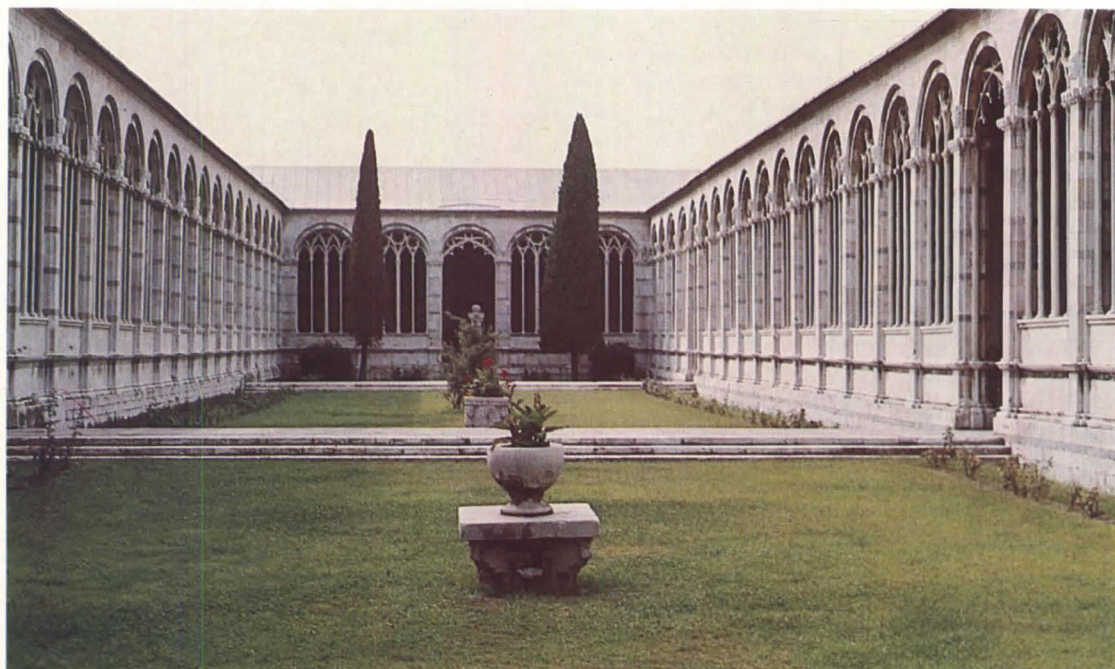


2 Campo Santo, Faenza, c. 1806.



3 San Lorenzo Cemetery, Rome, 1813.

Richard A. Etlin teaches architectural history at the University of Maryland School of Architecture. His book *Cities of the Dead: from Charnel House to Elysium in 18th-Century Paris* is being published by The MIT Press.



1 Campo Santo, Pisa, begun 1278.

The European Enlightenment bequeathed a rich legacy of funerary worlds fashioned in response to a new understanding of death. For reasons of hygiene and propriety, reformers rejected 1000 years of religious life to forbid burials inside parish churches and to close down the adjacent or nearby cemeteries. They invoked the ancient Greco-Roman tradition of burying the dead outside of the city, a practice they knew was shared by other contemporary societies ranging from American Indians to the Turks and Chinese. Cemetery designs of this period form the basis of the subsequent major Western burial grounds and can be divided into five categories: the *campo santo*, the elevated field of honor, the Elysian field, the monumental cemetery, and the space of geometric absolutes.

Campo santo

The most famous *campo santo* is that of Pisa (1), begun in 1278 to house the sacred earth brought back by the crusaders from the mount of Calvary. The cemetery consists of a long rectangular gallery closed on the outside with blind arcades and open to the interior through round arches filled with a later Gothic tracery. Under the patterned marble floor are more than 600 sepulchral vaults for the famous and the wealthy. The unmarked central field was for the populace.¹

With the Napoleonic Decree on Burials of 23 Prairial, year XII (June 12, 1804), Italian architects turned to the *campo santo* as a model for the new cemeteries that would be constructed outside the city. At Faenza, Giuseppe Pistocchi proposed a circular version with the terrain divided into four concentric rings for each age of life: childhood, adolescence, maturity, and old age (2). This arrangement was practical as well as symbolic, for the progression from the origins of life at the center to its termination at the periphery also afforded burial areas corresponding in size to the demographics of death.

Another variation of the *campo santo* stressed different types of burial for people of different means. This could be found, for example, in the designs for new cemeteries for Rome by Guy de Gisors, Inspector General of Public Buildings for the Imperial government (3). The program also stipulated 365 communal graves, one for each day of the year, to assure the salubrious and rational allocation of space.² This feature, derived from the old cemetery of Naples, was a welcomed alternative to the traditional mass grave that

Richard Etlin

held hundreds of bodies and remained open for long periods of time.³ Another example is seen in a tracing by an anonymous French architect for a new *campo santo* outside Turin (4), which is admired as much for its orderly distribution of graves as for its architectural dignity. Often, the new Italian *campo santo* was consecrated by a surrounding ring of cypresses or yews, traditional symbols of death and eternity. Whatever the particulars of the project, the *campo santo* presented an austere vision of human mortality where, to borrow the words of Aldo Rossi, “the civil aspects” of death predominated.⁴ Rossi’s addition to the Costa Cemetery of Modena adheres to this tradition (5).

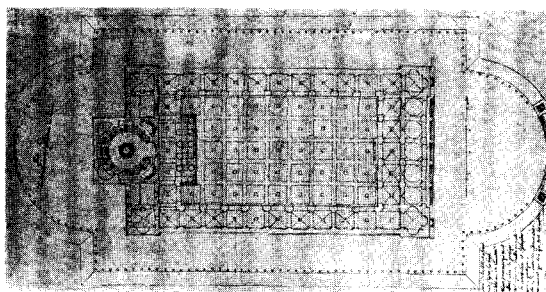
Field of honor

When the French Academie Royale d’Architecture’s *prix d’emulation* of November 1778 was won by Dufourny, the typology of the cemetery underwent a drastic revision (6, 7). The closed cloister of the *campo santo* was opened up, with the burial ground distributed over several terraces. Now the cemetery became a field of honor where the *memento mori* of the medieval prototype was replaced by the celebration of immortality through enduring fame. This terraced configuration was taken up again in the Concorso Clementino of 1795 sponsored by the Accademia di San Luca in Rome⁵ and then in the French Grand Prix competitions of 1799 and 1819.⁶ In 1799 the French architects integrated extensive plantings with the architecture. In 1819, Lesueur extended the importance of the landscape features to use the neighboring hills as a backdrop for the composition (8, 9). The final step in this development was taken in Genova with the Cimitero di Staglieno. Here in 1835 Carlo Barabino designed an elevated field of honor using the wooded hillside to the rear in a similar manner. After Barabino’s death in the same year, his collaborator, G.B. Resasco, refined the project, imparting greater majesty to the architectural complex and annexing the sloping land to the east for a burial ground after the manner of an English landscape garden⁷ (10).

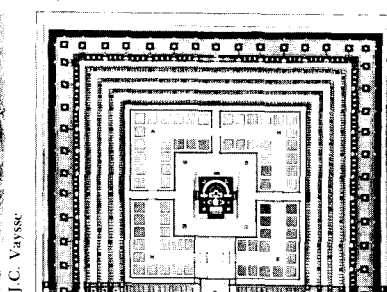
Elysian field

From its origins, the English landscape garden not only introduced a new “informal” and “natural” mode of gardening, but also presented a new vision of death and commemoration. The memorial or tomb was as much a part of the picturesque garden as was the meandering path. From the pyramid and family mausoleum at Castle Howard, to the obelisk in memory of his mother in Pope’s garden at Twickenham, to the urn to Maria Dolman in Shenstone’s “Arcadia” at the Leasowes, to the Elysian Fields at Stowe, and then across the Channel to Rousseau’s tomb at Ermenonville (11), the landscape garden gradually came to offer an alternative to the crowded urban cemetery.

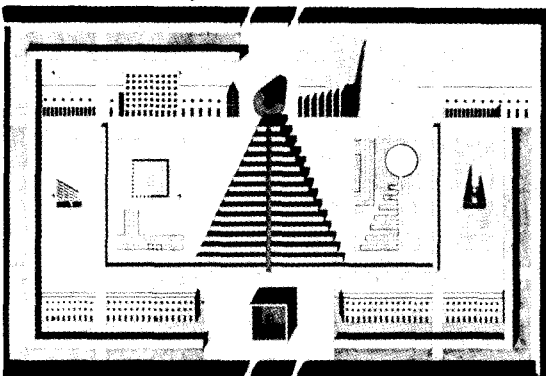
One of the earliest designs to employ such a landscape came from Jacques Molinos in a project of 1799 to systematize a new municipal burial ground just opened north of Paris in the quarries of Montmartre (12, 13). The



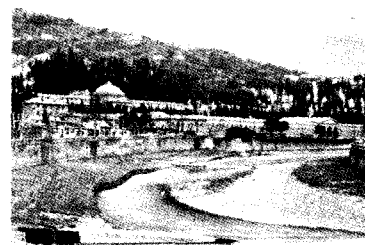
4 Turin Cemetery.



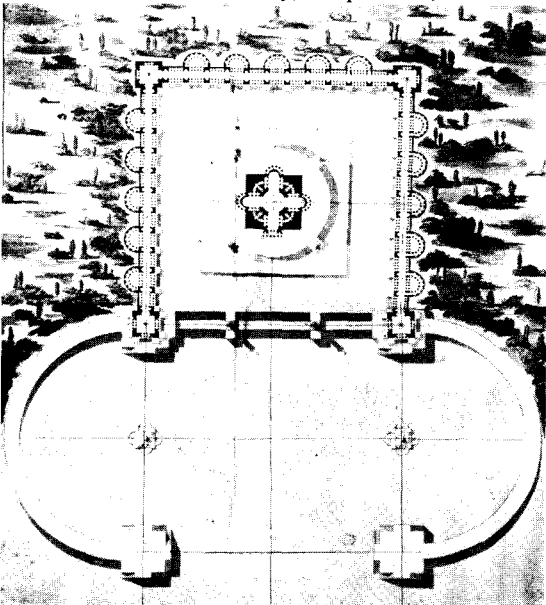
9 Lesueur, public cemetery.



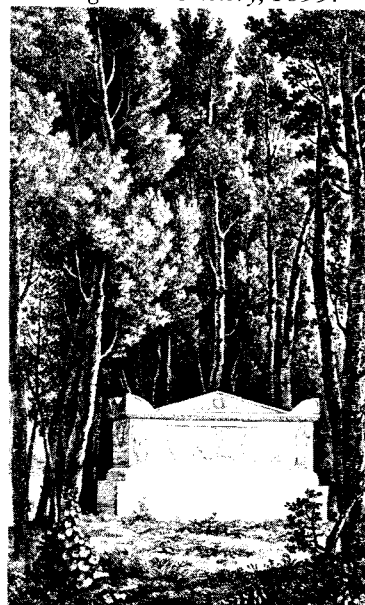
5 Rossi, Modena Cemetery, composition, 1972.



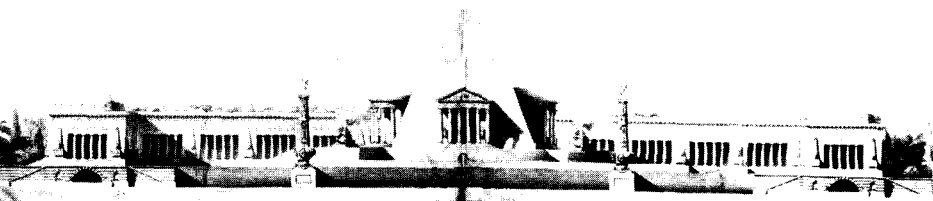
10 Staglieno Cemetery, 1835.



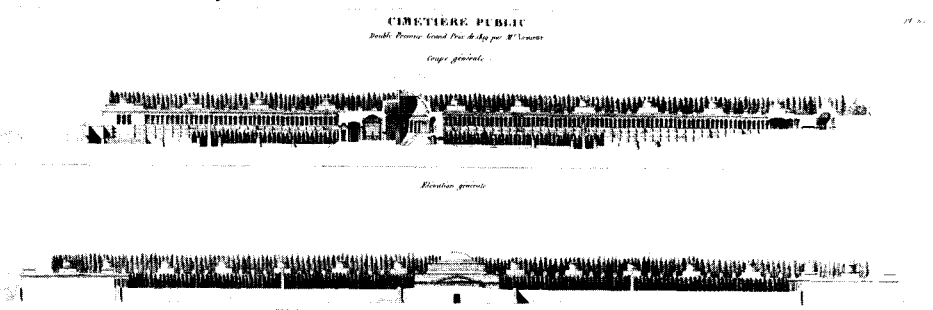
6 Dufourny, Cenotaph to Henry IV, 1778.



11 Robert, Rousseau tomb, c. 1780.



7 Cenotaph to Henry IV.



8 Lesueur, public cemetery, France, 1819.

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The architecture of death



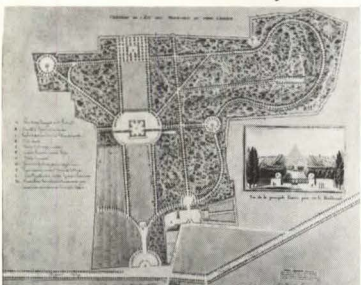
12 Molinos, Montmartre Cemetery, 1799.



18 Mt. Auburn Cemetery.



13 Montmartre Cemetery.



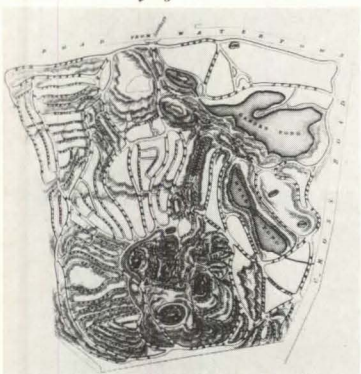
14 Brongniart, Cemetery of Père Lachaise, c. 1812.



19 J.B. Coste, "Weeping Willow," early 19C.



15 Cemetery of Père Lachaise.



16 Mt. Auburn Cemetery, 1831.



17 Mt. Auburn Cemetery.

Monumental cemetery

Contemporary with the cemetery in the form of the landscape garden was the monumental urban cemetery with its regular grid of well-ordered streets. In its earliest form, this type of burial ground shared with the picturesque cemetery the intention to banish all reminders of the hideousness of death. Thus, in 1794, the Parisian Administration of Public Works proposed a cemetery where the earth would be elevated and planted with grass, flowers, bushes, and trees to counter any thoughts about being buried in the cold ground.⁹ The Parisian Cemetery of Montparnasse was arranged in this manner, with the land sloping upward from the entry to the central square (20). With the progressive replacement of the modest tombstone by the larger mausoleum, which became so popular from the 1820s onward, this type of cemetery came to offer a built counterpart to the city of the living. Its character even became reflected in its name, as in the Cimitero Monumentale of Milan (21). At this point, the sentimental view of death yielded before the bulky evidence of a denial of death through building. The family mausoleum told more about the owner's wealth and status than about death itself.

Geometric absolutes

The fifth vision of the cemetery derives from the work of Etienne-Louis Boullée, in which simple geometric forms were arranged relative to each other and to the level of the earth to create an ambiance of otherworldliness (22, 23). The cemetery at Modena by Rossi (p. 133) as well as the two cemeteries by GRAU in Altilia and Parabita (p. 138) used such a "projective geometry," to borrow Alessandro Anselmi's characterization,¹⁰ to create what Rossi termed "exalted, emotional, and metaphorical rationalism."¹¹ As Rossi recognized in Boullée's funerary architecture, the negative spaces, the partially buried forms, and somber lights formed a metaphorical counterpoint to the city of the living, which evoked at the same time strong feelings about the incommensurable nature of death.

The lesson was well taken in Rossi's Modena Cemetery where the empty cube is an "unfinished and abandoned" house and the conical tower is likened to the cold smokestack of an "abandoned" factory (5). Rossi, though, reverses the meaning of Boullée's cemetery where the central pyramid rose as a triumphant temple to Nature and was consecrated to the memory of society's heroes. In contrast, Rossi creates a metaphysical landscape reminiscent of De Chirico where the plain walls, empty streets, and stack or tower evoke feelings of uneasiness and alienation. Thus, Rossi's central monument is dedicated to the "abandoned dead" who were also society's abandoned living, those "coming out of madhouses, hospitals, and jails" where they played out their "desperate or forgotten lives."¹²

The two GRAU cemeteries, with the lessons of Le Corbusier and Louis Kahn applied within the syntax of Italian Neo-Rationalism, recognize the ritualistic and symbolic power

Richard Elin

Bibliothèque Nationale, Paris

Richard Elin

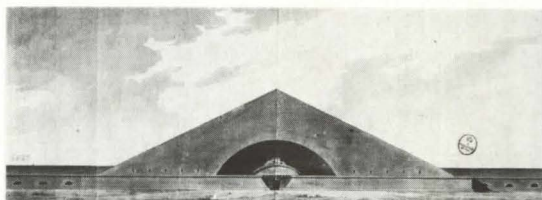
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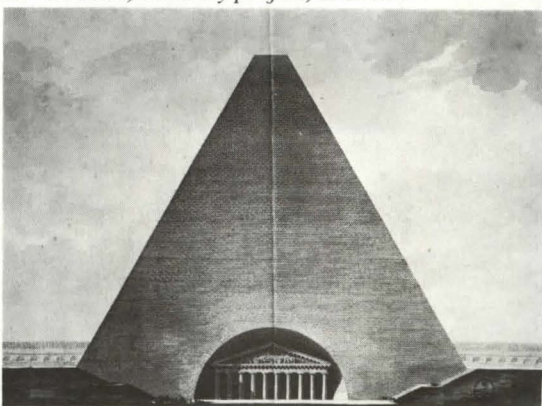


21 Macciachini, *Cimitero Monumentale*, Milan, 1860–1897.

of geometry to make the living aware of how close they can come to the dead, and yet how far away death remains. Here, as in Rossi's design, one finds the negation of Bernardin de Saint-Pierre's sentimental view of the tomb in the garden as standing on the frontier, as a link, between two worlds.¹³ Perhaps Pasolini's tomb by Gino Valle (p. 146) successfully combines these two tendencies. Like Canova's monument to Maria Christina (24), the Pasolini tomb takes the visitors to the threshold of death only to make them painfully aware of the abyss that separates them from the departed. In Canova's work, this is achieved by the arrested motion of the procession just reaching the darkened portal. In Valle's design, the same effect is achieved by the line that stops at a slight distance in front of the square marker. While the metaphysical space between these two stone pieces is insuperable, the diminutive size of the marker sheltered by the laurel bush humanizes the memorial to allow a deep communion with the dead Pasolini. One is reminded of a similar attitude taken by Henri Labrouste in his tomb for André de Ridèle. When confronted with so many ponderous stone mausoleums all around, the great French architect decided not to crush his subject, but rather to let him breathe, so to speak, under the comforting cover of a modest garden.¹⁴ Beside the broad marble surfaces covering the cemetery at Casarsa della Delizia, Pasolini enjoys the same favor. □



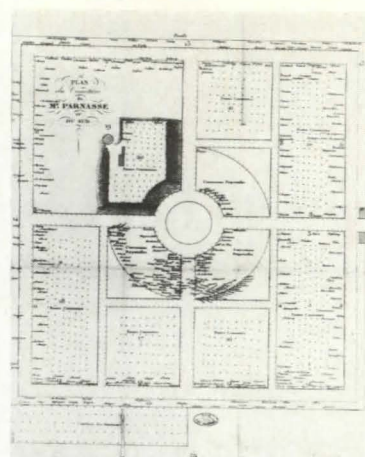
22 Boullée, cemetery project, c. 1785.



23 Boullée, cemetery project, c. 1785.



24 Canova, *Maria Christina Monument*, 1805.



20 Montparnasse Cemetery, c. 1824.

Footnotes

¹ Pandolfo Titi, *Guida per il passagiere dilettante . . . di Pisa* (Luca, 1751), 65–66. Lasinio, *Pittura e fresco del Campo Santo di Pisa . . .* (Firenze, 1832).

² Guy de Gisors, *Recueil*, Bibliothèque de l'Institut de France, ms. 1045, n° 88. Gisors' two projects were intended to serve as models for the architects of these new cemeteries.

³ A.-C. Quatremère de Quincy, "Cimetière," *Encyclopédie méthodique. Architecture* (Paris, 1788) I, 682.

⁴ Aldo Rossi, "The Blue of the Sky," *Oppositions* 5 (Summer 1976), 32.

⁵ Paolo Marconi, *I Disegni di architettura dell'Archivio storico dell'Accademia di San Luca* (Roma, 1974) I, n°904–927.

⁶ For illustrations of the Grand Prix of 1799, see Détournelle, Vaudoyer, and Allais, *Projets d'architecture . . . qui ont mérité le grand prix . . .* (Paris, 1806).

⁷ Giovanni Grasso and Graziella Pellicci, *Cimitero di Staglieno* (Genova, 1976), 2–4.

⁸ A.J. Downing, *The Horticulturist* (July 1849).

⁹ Avril, *Rapport de l'Administration des Travaux Publics sur les cimetières* (Paris, 1794).

¹⁰ Alessandro Anselmi, "The New Town Cemetery of Parabita (Lecce)." *Oppositions* 5 (Summer 1976), 32, 34.

¹¹ Aldo Rossi, "Introduzione a Boullée," in *Scritti Scelti sull'architettura e la città 1956–1972* (Milano, 1975), 351.

¹² Aldo Rossi, "The Blue of the Sky," *Oppositions* 5 (Summer 1976), 32, 34.

¹³ Bernardin de Saint-Pierre, *Etudes de la nature* (Paris, 1784) III, 123.

¹⁴ César Daly, "Tombeau élevé au Cimetière Mont-Parnasse à Paris, sur les dessins de M.H. Labrouste," *Revue Générale de l'Architecture et des Travaux Publics*, 7(1847) 202.

D. Morton

Gabinetto fotografico, Soprintendenza alle Gallerie-Firenze (22, 23)

From: Hugh Honour, *Neo-Classicism* (Penguin, London, 1968)

Bibliothèque Nationale, Paris

Geometric absolutes

Two cemeteries in the most southern provinces of Italy use geometrical forms as the main guiding force of design.

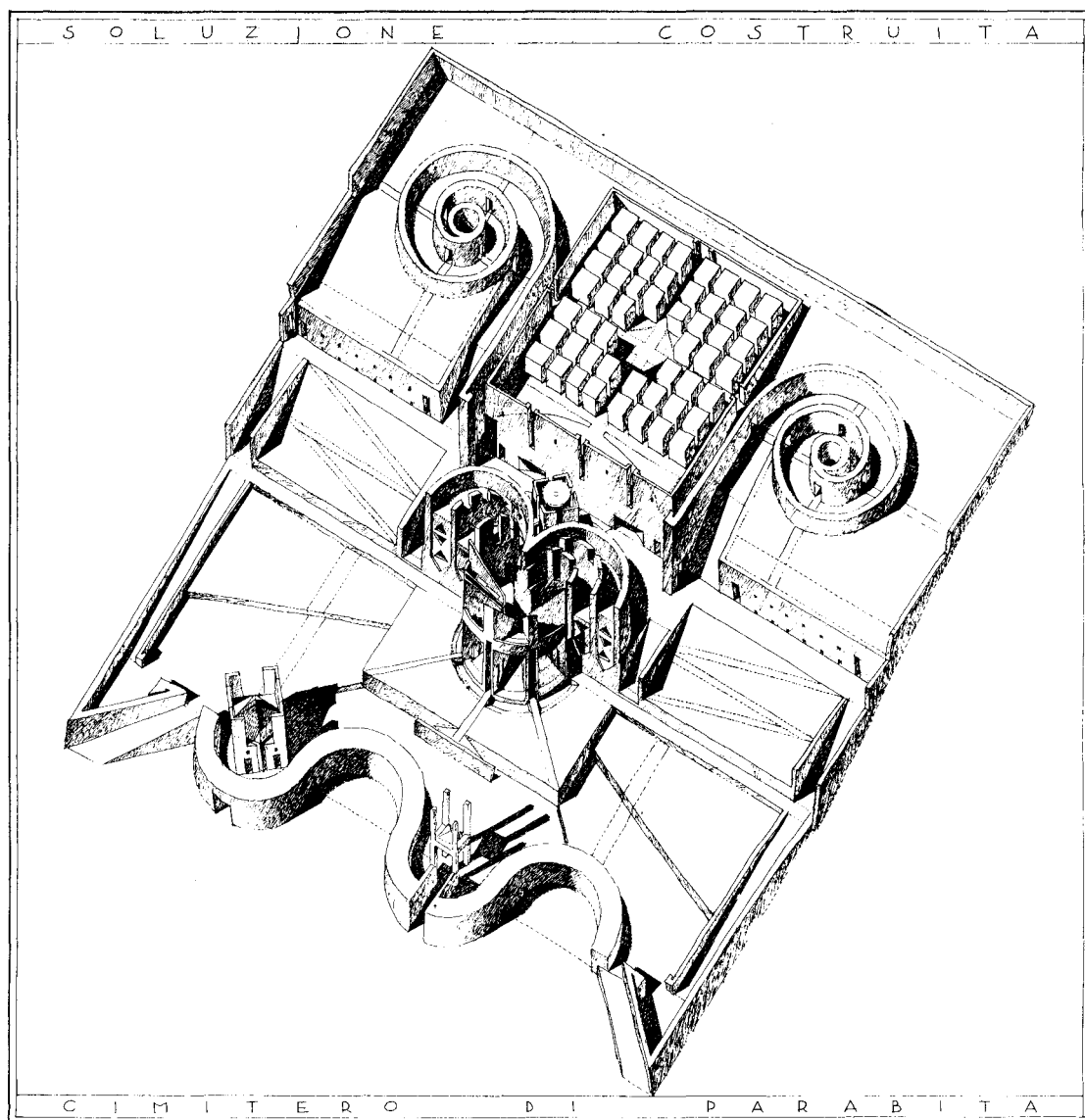
GRAU (Gruppo Romano Architetti Urbanistici) is a group of 14 architects and urbanists who came together in Rome in the mid-1960s during the political and social upheavals, which in Europe as well as here were centered in the universities. As a group, they were among the first in Italy to break completely with the tenets of the Modern movement and to invoke, Paolo Portoghesi has said, "a frame of reference for a critique of the 'tradition of the new.'"

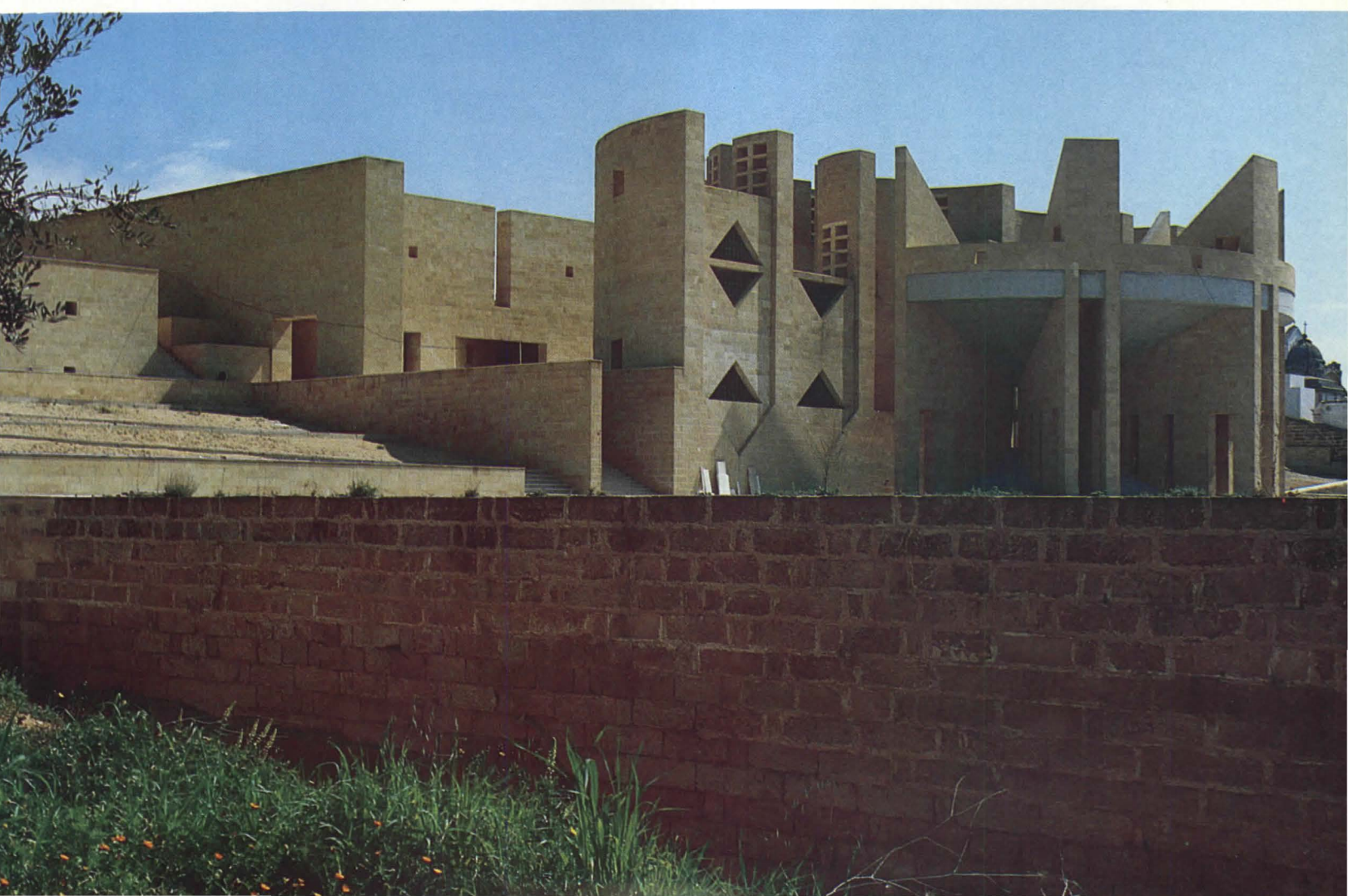
"Against the prevailing functionalism and empiricism," Alessandra Latour writes in her introduction to the notes for their exhibition at Columbia University last year, "GRAU vindicated art and in particular architecture

as an activity of thought . . . as a field of knowledge . . . as rational activity where geometry and the module are conceived as the regulating elements. History, for GRAU as it was for Louis Kahn, becomes 'the past as friend' . . . not a sentimental return to antiquity or the construction of artificial memories . . . but the useful instrument," which in its critical capacity becomes "that 'logical antecedent' capable of defining the architectural value which is opposed to ideology while being beyond any contingency."

"The stages that led to this radical awareness," GRAU explains (in *Architecture 1980: The Presence of the Past*, Venice Biennale, Rizzoli, NY) "began from the recognition of the lan-

The Parabita Cemetery in Lecce, Puglia, includes an ossuary (far right) and places for burial in the terraces, in the curving structure (at bottom of drawing, right), and in the spiral structure and space for private chapels between it (at top of drawing).





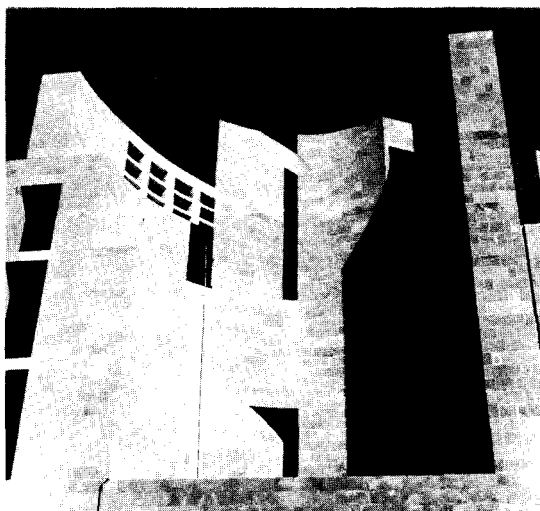
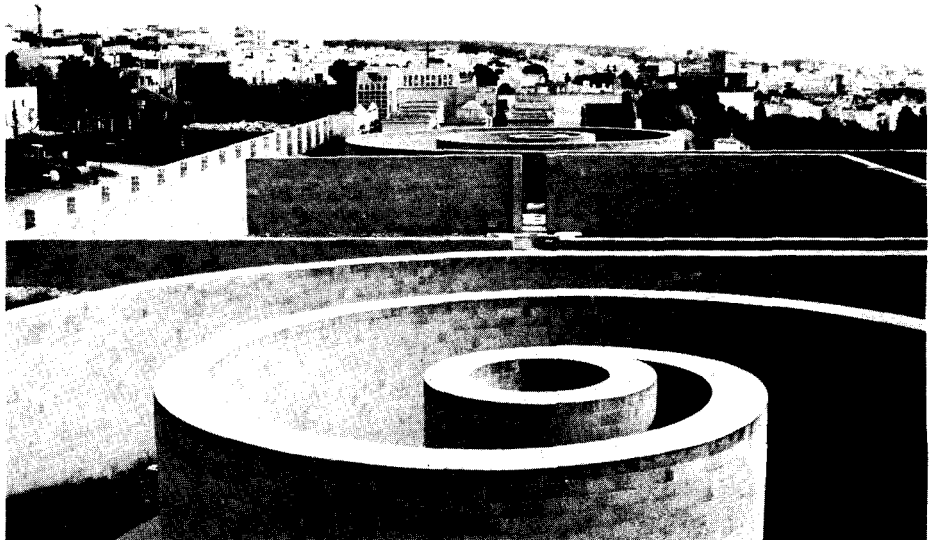
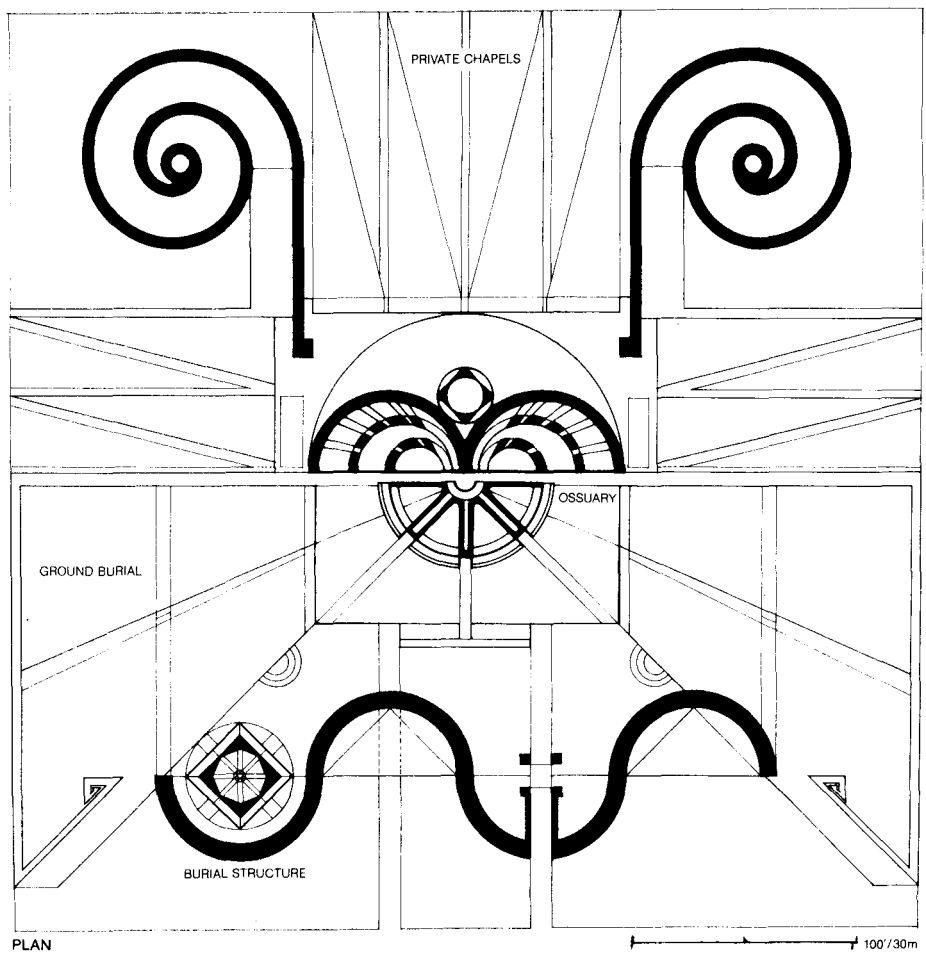
Two cemeteries in Italy

guage of architecture as an autonomous language. We proceeded by means of regaining such meaningful categories as geometry, number, and the original theorization of the plastic module and of the associative law—all of these dialectical structures of the project. The aim . . . in putting together new connections and in establishing new points of reference is to create a renewed, real unity among all the figurative arts." The goal is "to fully reclaim an ideological dimension of artistic work as a factor in itself significant, always . . . characterized by . . . efforts to reconstruct a new, better order of human works."

Town cemetery of Parabita

In discussing the New Town Cemetery of Parabita in Lecce, Puglia, Alessandro Anselmi, who designed it with GRAU associate Paola Chiatante, explains that "we tended toward the search for a non-Renaissance centrality, capable of gathering together finished objects and different spatial situations in a logic that was not the simplistic sum of 'pieces' and 'parts,' but a more or less refined and coherent organization of architectural elements. Starting out from this standpoint (as unique and real historical determination), we realized that we had to push our work in two principal directions: one that would investigate projective geometry, through which we were searching for a general aggregative law no longer tied only to the infinite point (thus abandoning the absolutism of the hypothesis and illusions that the Modern movement carried with it, from cubism and its derivations); the other direction would search for the significant possibilities of the single elements/objects and of the manifold relationships among them and the general aggregative law. . . . The central point was to carry out two logical, distinct and opposed functions: the centrifugal and the centripetal. We thus divided the spatial field into two semi-spaces belonging relatively to the two functions. Around this idea, we began the design of the ossuary (charnel) and of the other main bodies." In plan, "each 'line of force' is channeled either directly or through analogy to the central, finite point. And this point, charging itself with energy, will project (each line) into the other zone in a sort of huge explosion in which, paradoxically, finished and autonomous pieces find order figuratively."

Functionally, the cemetery is divided into four zones, which include two areas for burial, in the sinusoidal building in the lowest part of the complex and in the second zone of terraces between that structure and the third zone, the ossuary. The fourth zone is made up of private chapels, which are required by Italian law, and which are located in the two spirals and in the enclosure between them.



The Parabita cemetery is built of local sandstone. The view above is across the spiral burial structures, showing the space for private chapels in between. The ossuary entrance (facing page, top) is organized into segments of forced perspective.



Two cemeteries in Italy



The cemetery of Altilia in Catanzaro, Calabria (right), includes the same kinds of functions as those at Parabita, but its forms are derived from a more solid type of geometry organized in orthogonal grid. The drawing (above) is oriented toward the entrance, with a symbolic representation of the cube-shaped chapel in levitation above the statue.

Cemetery of Altilia

The much smaller cemetery in Catanzaro, Calabria, designed by Alessandro Anselmi, Giuseppe Patane, and Giovanni Angotti, serves a small farming community and is located halfway up the slopes of a mountain. It was initiated for the purpose of enlarging an existing, inadequate cemetery.

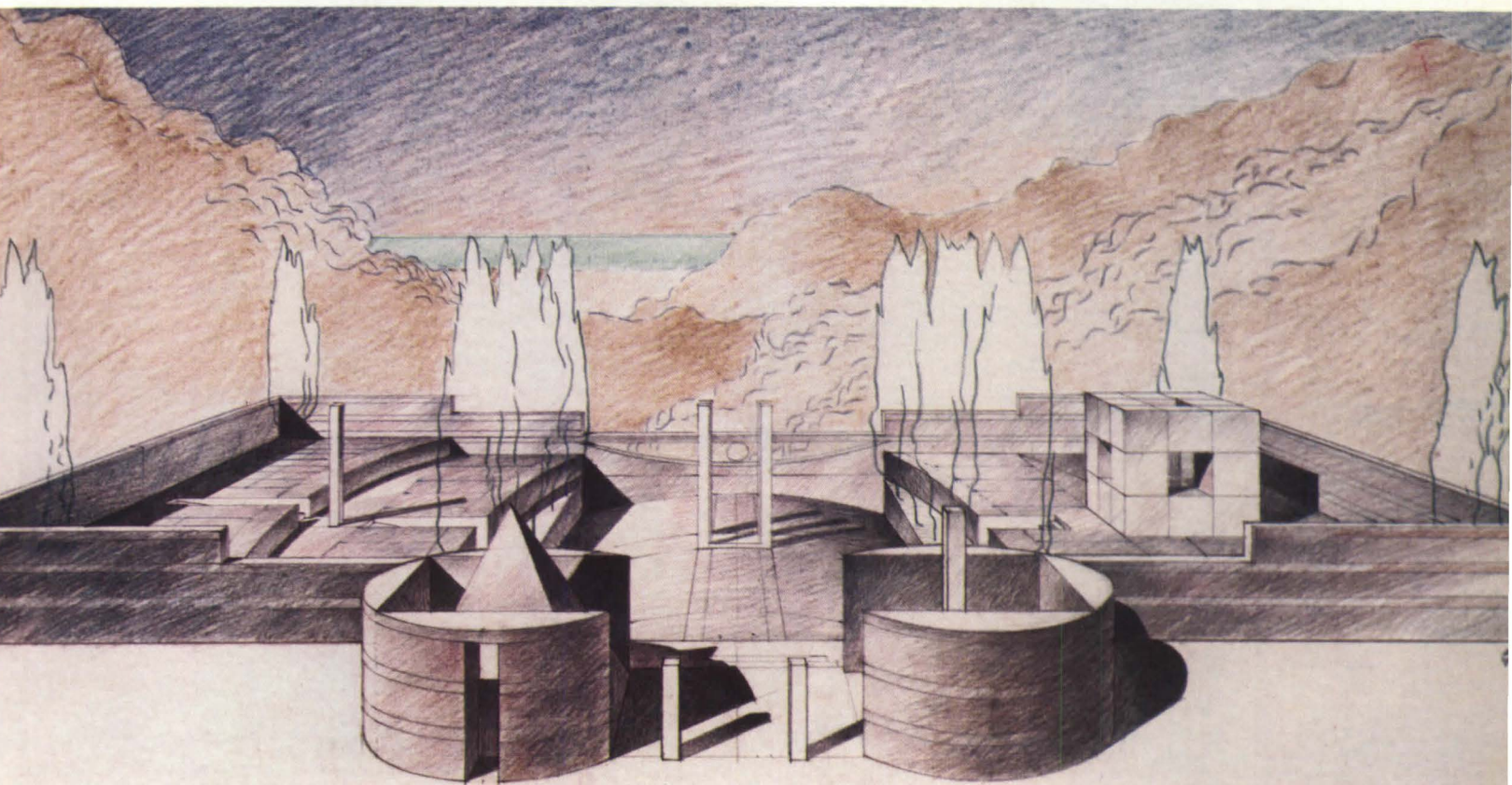
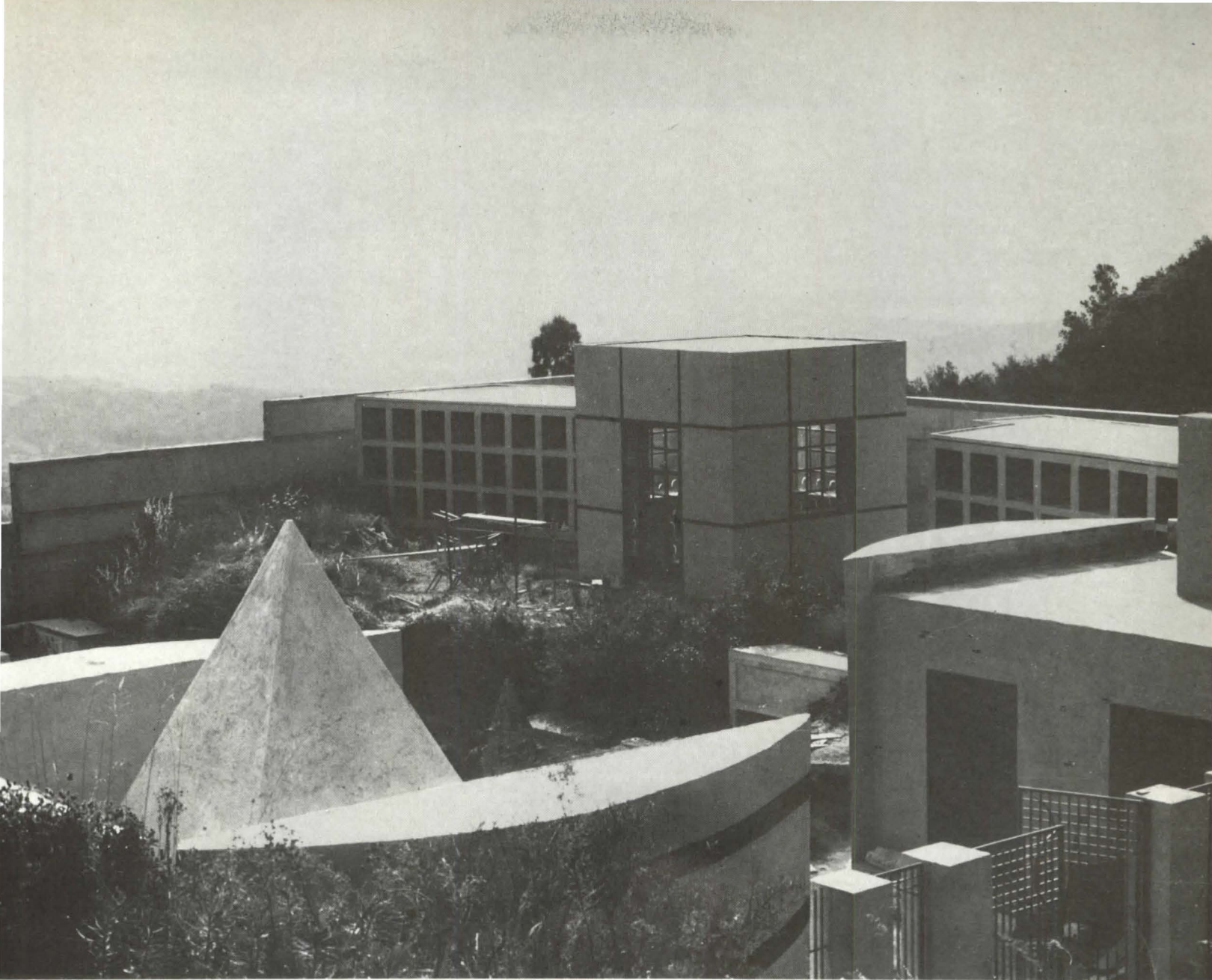
In pursuing the project, the architects restored and completely renovated the old graveyard. With its memory retained for the villagers, it then became the center of the spatial organization for the new expansion carried out to the sides.

In the project, which is now in its final stages of construction, three burial areas have been located at different levels within new, expanded perimeter walls. At one end within

the rectangular enclosure there is also a small chapel with buildings for burial flanking it (the latter do not appear in the drawings because they were added during construction). In the middle is an ossuary. Outside of the enclosure, and forming a gateway to the cemetery, two cylindrical structures house a mortuary chamber, offices, and restrooms.

Although issues of geometry are of primary concern here, they are quite different from those dealt with at Parabita. Instead of using projective geometry of curving linear elements that result in a highly charged dynamic organization, at Puglia a calm stability is derived from forms of solid geometry symmetrically placed within the matrix of an orthogonal plan. The grid is modified only in the slight curve of the burial terraces and bur-



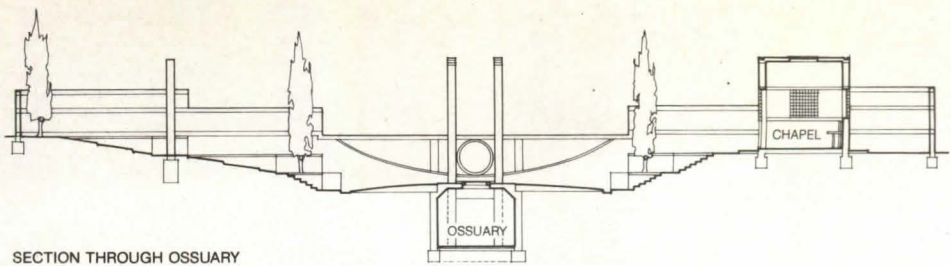


Two cemeteries in Italy

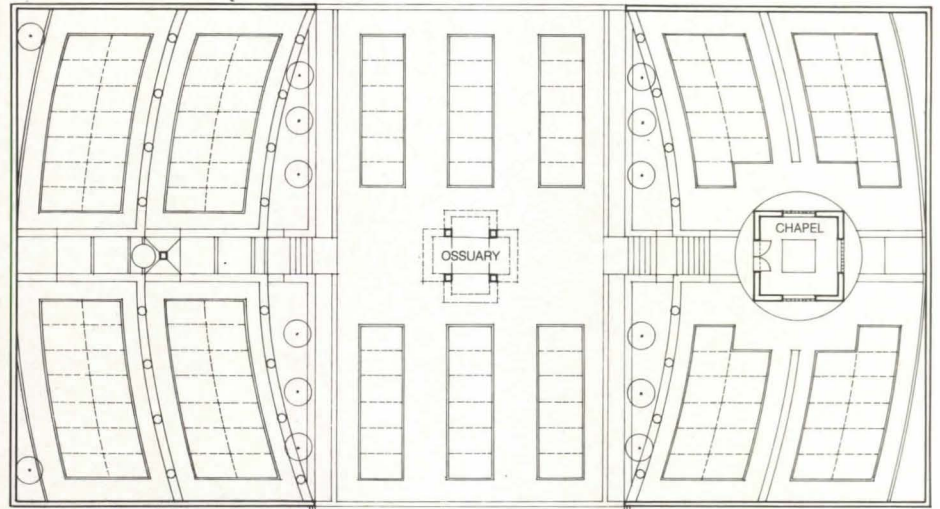
ial buildings flanking the original cemetery.

The cylindrical structures at the gateway have been divided by chords into four equal sections, but where they face each other at the entry, the section has been removed. In the void left by the chording, a pyramidal mortuary chamber is placed into the core of one cylinder and the office block into the core of the other. Inside the main enclosure, the chapel is designed as a simple cube, terminating the longitudinal axis of the cemetery.

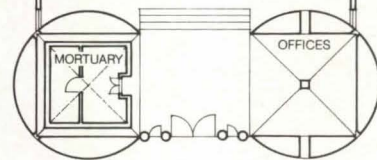
In speaking of Parabita, Anselmi has said "whoever enters the cemetery today, even if it is not yet functioning, has the clear sensation of standing in a ritualistic and symbolic place." While that could also apply to Altilia, something he has said in reference to another project might help to explain why this is so. "I have always been fascinated by the image of ancient ruins and of spatial situations nascent in archeological sites (which) seem to propose to us new and improbable relations with nature and fundamentally with history itself. . . . The archeological site is incontestably the place of memory, but is it a question of memory of the past or of the future? . . . The architectural project is a projection toward the future, it is a program and a hope; but born indisputably of the ancient ruins that are within us." [David Morton]



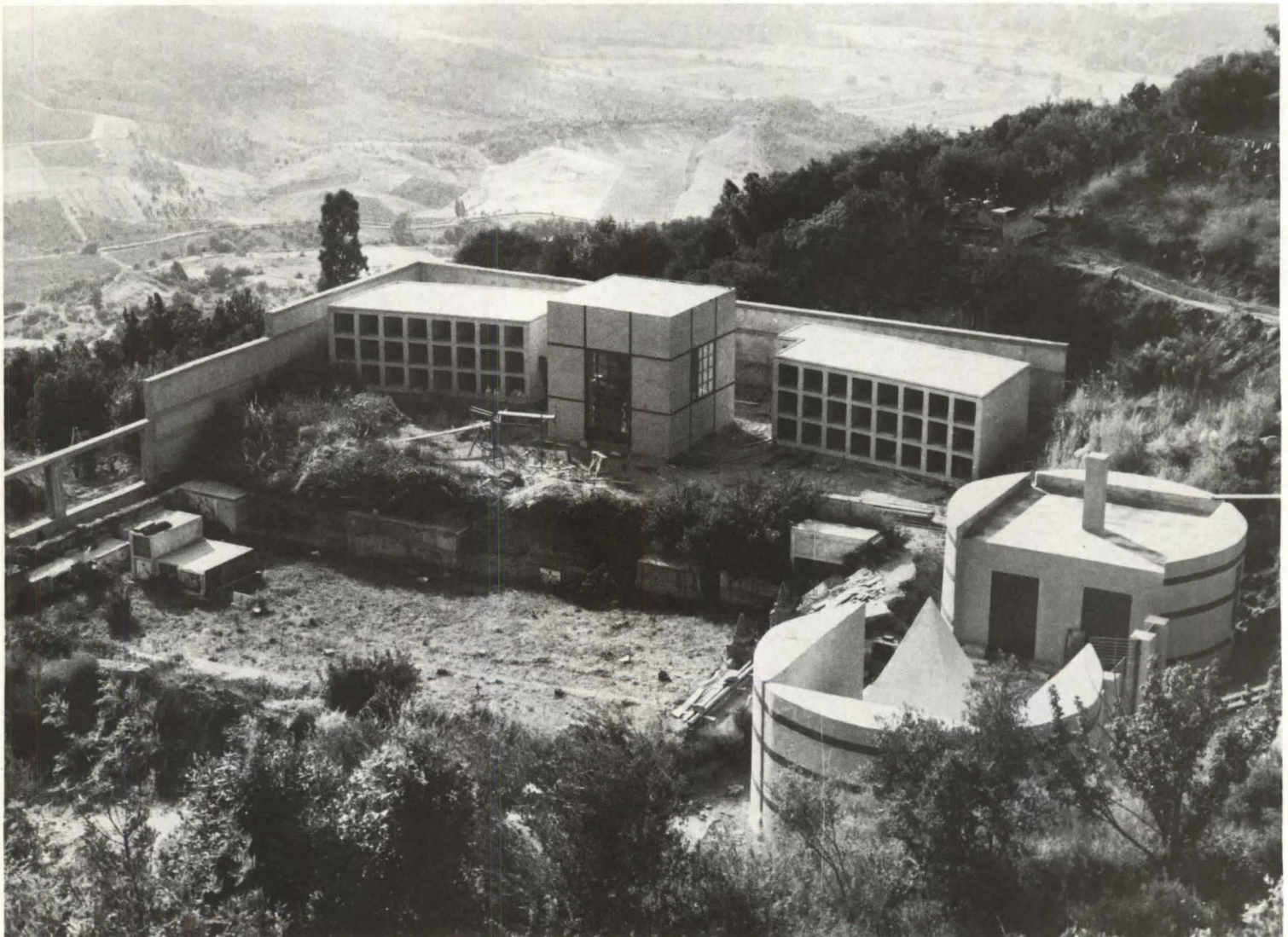
SECTION THROUGH OSSUARY



PLAN



N ↓ 20' / 6m





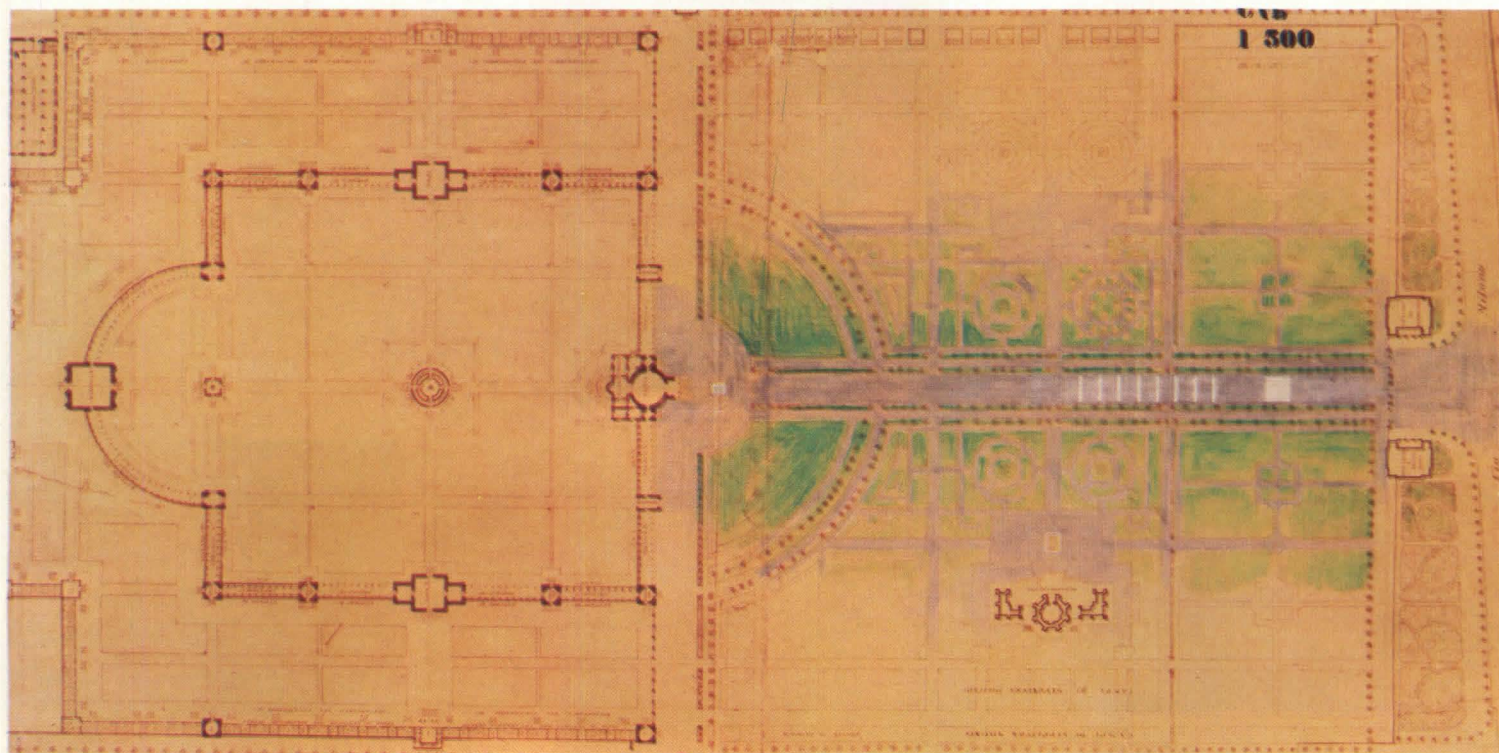
Pasolini's tomb, Casara della Delizia, Italy

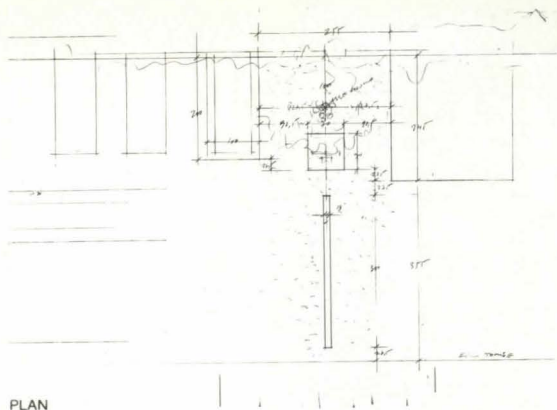
Meaning through precedent

Pier Paolo Pasolini's tomb is simple, but with more meaning than is immediately apparent.



Pasolini's tomb (facing page) is derived from an earlier scheme by Gino Valle for the Vantiniano cemetery in Brescia (this page). In both, those walking the paths must cross raised stone slabs.





PLAN



Pier Paolo Pasolini was beloved by many, and especially so by his family and friends in the small north Italian village of Casara della Delizia, his birthplace near Udine. After he was murdered in Rome in 1974, members of his family and citizens of the village asked architect Gino Valle to design a monument in the town cemetery for the film maker. Just prior to this, however, Valle had been engaged in a national competition in which five architects and five sculptors had been asked to design a memorial to eight partisans who had been killed by Fascists in Brescia in May of 1974.

The massacre had sent a deep shock through the people of the city, who perceived it as a violent negation of their civil tradition. A monument proposed by the Anti-Fascist committee to commemorate the event was to be designed to "reawaken and to enrich the ideal of the public good over that of the private." It was to have been placed in the Vantiniano cemetery (left), which is one of the most eloquent and perhaps most cohesive large-scale Neo-Classical designs ever realized in Italy.

Believing it would be only empty rhetoric to attempt to compete with the strong visual presence of the cemetery itself, Valle designed a simple, poetic remembrance consisting of a square marble marker and eight stone strips resting across the gravel of the main pathway into the cemetery. With this design, the tragedy would be continually recalled whenever one had to cross the slightly raised slabs.

Although none of the schemes was ever realized in Brescia, Valle's project became the precedent for his memorial to Pasolini (this page). At Casara della Delizia on the only empty plot left in the oldest and most attractive part of the cemetery, Valle set a simple square marble marker into the gravel and planted a laurel tree, the traditional symbol of honor, behind it. In front of it, a raised stone slab was laid across the public pathway. Recalling the earlier design, one senses that the memorial is intended not only as a commemoration to Pasolini, but also to those not commemorated in Brescia, and to the ideals for which they, and he, dedicated their lives. [David Morton]



Permanence, piety, and passion

A mausoleum atop a hill in California achieves unusual effects by simple means.

On a steep hillside overlooking the old El Camino highway south of San Francisco, this Italian mausoleum's white inert walls suggest permanence, eternity. The fortresslike solidity is reinforced by crenellated window openings, while, says architect Robert Overstreet, the hoodlike window forms suggest the demure starched habit of the Catholic sister. But what of the red flames that seem to burn at night within the building's viscera?

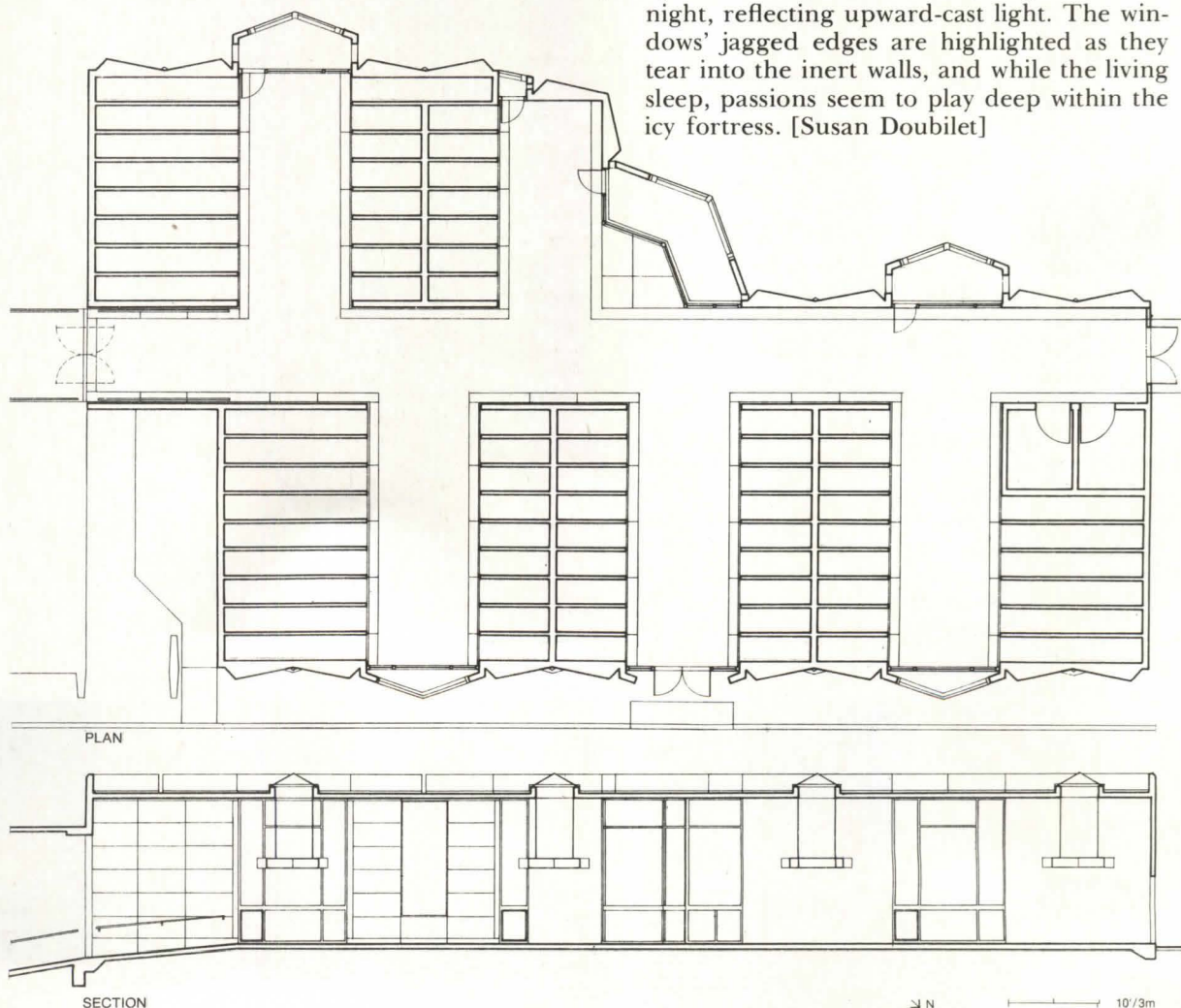
The mausoleum is a part of the Italian Cemetery in Colma, Ca, established in 1890. The cemetery, with its vaults, family chapels, outdoor garden crypts, and memorials, reflects the family-centered Italian-American culture as well as Old-World traditions. The architectural firm of Botsai, Overstreet Associates (now Overstreet & Rosenberg, Inc.) has been involved over the last dozen years in developing a master plan and designing mausoleums for the new site of the cemetery

(overleaf), also in Colma, and adding to the old site, where this mausoleum is located. As land is becoming scarce, the cemetery society is considering building a high-rise mausoleum structure in the future.

This mausoleum, completed in 1974, contains 609 crypts, and an extension to double the capacity is being planned. The crypts themselves are of Roman travertine as tradition demands, but otherwise the materials are simple, this not being a mausoleum for those requiring lavish burial: interior and exterior concrete is painted; floors are carpeted.

The large openings at the ends of the mausoleum corridors frame views of distant hills. Planters in front of the openings and large hanging planters under skylights introduce freshness and botanical life into the monolith.

But the most remarkable effect is achieved by the ceiling. Painted red, it glows in the night, reflecting upward-cast light. The windows' jagged edges are highlighted as they tear into the inert walls, and while the living sleep, passions seem to play deep within the icy fortress. [Susan Doubilet]





Data

Project: Italian Cemetery Mausoleum #3, Colma, Ca.
Architects: Botsai, Overstreet Associates, San Francisco, Ca; Robert K. Overstreet, project architect.
Client: Società Italiana di Mutua Beneficenza.
Site: steep hill in the old Italian Cemetery.
Program: to house 609 crypts.
Structural system: reinforced concrete walls and slabs.
Major materials: painted concrete, carpet, Roman travertine crypts.
Consultants: Henry J. Degenkolb & Associates, structural; Eagleson Engineers, mechanical; Charles Kreeger & Associates, electrical.
Contractor: Oliver & Komes.
Photography: Mush Emmons.

The mausoleum on the hill (above) and a night view of a window opening (right), showing the red-painted ceiling from which hangs an acrylic cross.



Earth, sky, and richness

Solid forms grow from a pyramidal pedestal, and then open up to introduce skylights, in this mausoleum in California.

When Botsai, Overstreet Associates were asked in 1970 to develop a master plan for the new site of the Italian Cemetery in Colma, Ca, they called for regrading the entire site to provide for a large pyramidal earth berm, accessible from the street by two generous ramps. The earth berm serves to unify the buildings on the site and to set the site apart from the adjacent residential neighborhood. While diverging from the magnificent simplicity of the ancient burial forms they

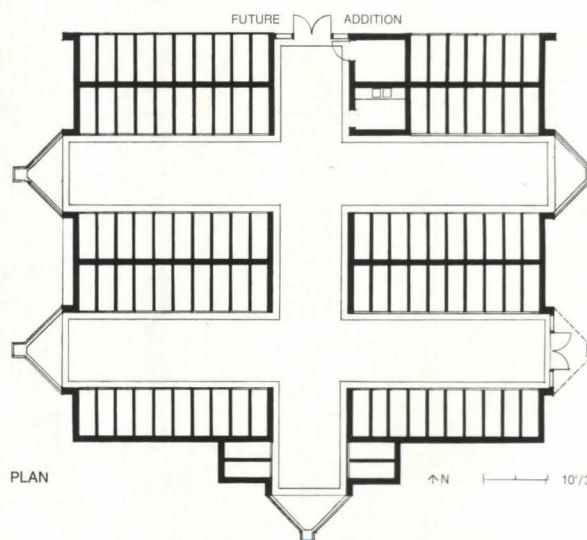
suggest, mausoleums on this site have nonetheless kept to the established pyramidal theme.

The master planners designed the first mausoleum-chapel built on the site, and last year completed the one shown here, similar in materials and configuration to the earliest one. Growing from its earthy mound, it is clad in the rich earth tones of red Persian travertine. Then, reaching skywards, its solidity splits apart, and pointed skylights bring generous light and airiness into a building type that has been traditionally dark and mysteriously gloomy.

Unlike the less expensive mausoleum by the same architects shown on the previous page, this mausoleum is richly appointed, meant for the most lavish burials. Not only is the exterior finished in split-faced red marble tile; the interior, too, is clad in red rosoria marble.

There are 606 crypts in all, simply arranged in rows, visited by broad carpeted corridors vaulted by the sky, seen through the skylights whose mullions cast geometrical shadows on the impressive marble halls.

[Susan Doubilet]



Data

Project: Italian Cemetery

Mausoleum #4A, Colma, Ca.

Architects: Botsai, Overstreet &

Rosenberg, San Francisco, Ca.

Site: an earth-bermed cemetery
in California.

Client: the Società Italiana di
Mutua Beneficenza.

Program: to house 606 crypts in
a mausoleum.

Structural system: reinforced
concrete.

Major materials: split-faced red
Persian travertine tiles, exterior.

Red rosoria marble, interior.

Carpeting.

Consultants: Henry J. Deben-

kolb & Associates, structural.

Eagleson Engineers, mechanical.

William J. Strother, lighting.

Contractors: Oliver & Komes,
general. Supersky, Inc.,

skylights.

Photography: Hedrich-
Blessing.

The red marble mausoleum (be-
low) grows from an earth berm.
Skylights introduce light, create
geometric patterns overhead
(right and opposite).



A building adrift

An unusually spectacular facility for mentally ill and mentally retarded people offers the contrast of a flamboyant aesthetic and a rigorous medical need. It raises the most basic questions about the role of the environment in mental health.

The 21 patients in this curvaceous jewel-box do not reflect its playful geometries in their eyes. One suspects that music and tasty food likewise only cloud their simple being momentarily. They often sit for hours as if a spell has brushed aside the sensual world and left them rapt students of their own heartbeats.

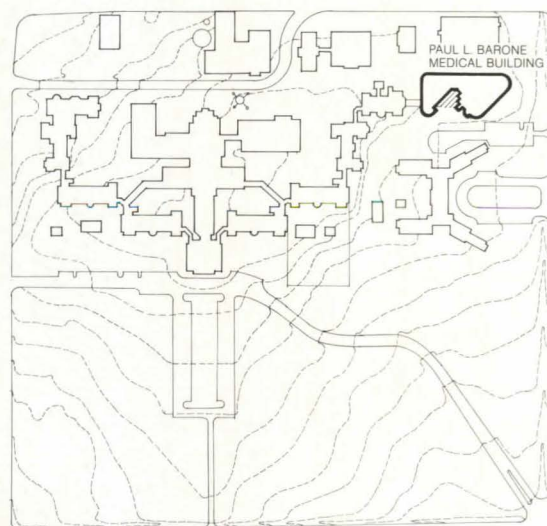
A staff of 36 administers to the needs of these people, in three different daily shifts. The patients and staff take turns regulating each other's lives. Nurses superimpose a hospital schedule on the actions of the patients; the patients can, at any moment, shock their vigilant keepers into disciplined response.

When idle, the nurses sit or stand about, always on the edge of duty, stealing thoughts of their own lives to be sure and following the circular patches of sunlight across the pastel colored walls and counter tops. The calming colors relieve both the starkness of other buildings outside and the taut balance of activity inside. Round windows transform the flat land and simple foliage of the grounds into novel views.

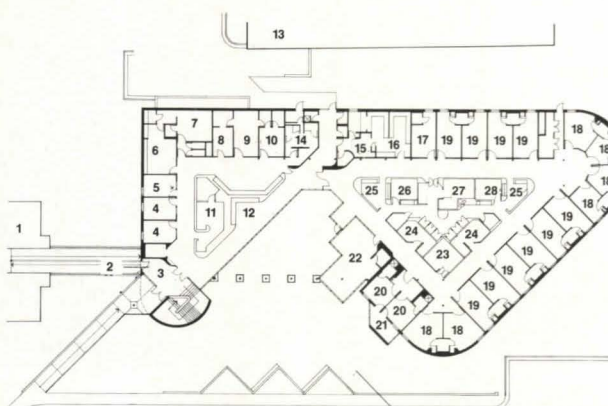
The interrelationship between the building and both groups of people is necessarily a delicate one. The patients, although full-size adults, demand a simple environment much like that for a child. Plants, curtains and blinds, or operable doors and windows can represent hazards to them and vice versa. At the same time, an active interaction with the environment must be critical to the maintenance of a meaningful relationship with the real world.

These same amenities are part of the work needs of the staff. Yet the nursing staff, already laden with responsibility, hardly needs elements of the environment which add to the stress of their day. Although the building is flooded with natural light, for example, the fluorescent fixtures are illuminated all day. Nurses can't be distracted by building decision-making.

One programmatic necessity was to have direct visual access into all of the rooms from nurses' stations. Windows between the rooms and the corridors allow for this type of constant surveillance. A by-product is a building with additional daylight. Another product of this visual access is that the patients are bound to be more conscious of each other. Such ease of access in emergencies is critical to nurses while by contrast many of the same spaces are meant to discourage idle access by patients.



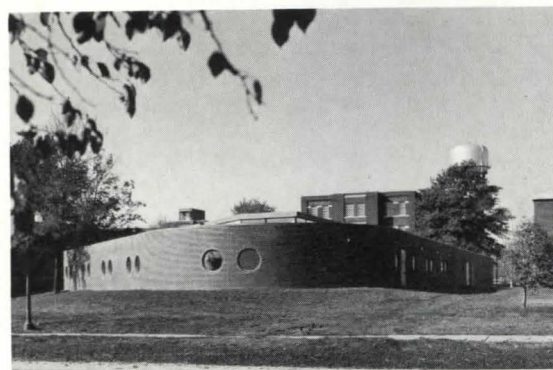
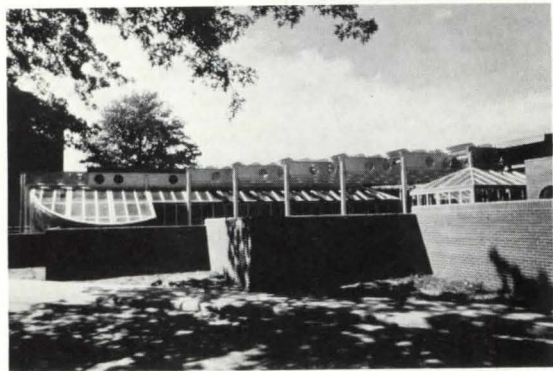
PARTIAL CAMPUS SITE PLAN N ↑ 100'/30m



FIRST FLOOR PLAN N ↑ 30'/9m

Legend

- | | | |
|-----------------------|------------------------------|-------------------|
| 1 'D' Building | 13 Existing laundry building | 24 Bathing |
| 2 Ramp | 14 Lavatories | 25 Nurse station |
| 3 Vestibule | 15 Reception | 26 Supervisor |
| 4 Clinical director | 16 Laboratory | 27 Soiled utility |
| 5 Unit director | 17 Visitors | 28 Medication |
| 6 Office | 18 1 bed | |
| 7 Radiology | 19 2 bed | |
| 8 Testing | 20 Isolation | |
| 9 Treatment | 21 Dayroom | |
| 10 Inhalation therapy | 22 Solarium | |
| 11 Work area | 23 Nourishment | |
| 12 Waiting | | |



(Top left) Observing the building from the south side and moving around it counterclockwise to the east, one can watch it first open, then close to its surroundings. The operable sunshades (above) prevent undesirable solar gain in the nursing unit. The solarium (left) is a gathering area for patients, especially in winter months.

Paul L. Barone Medical Building

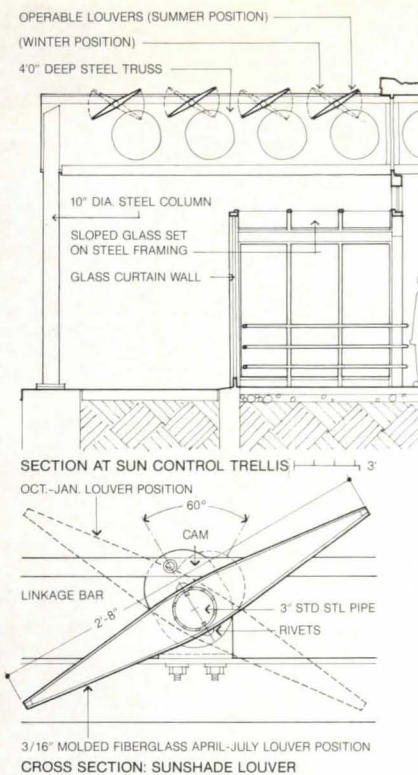
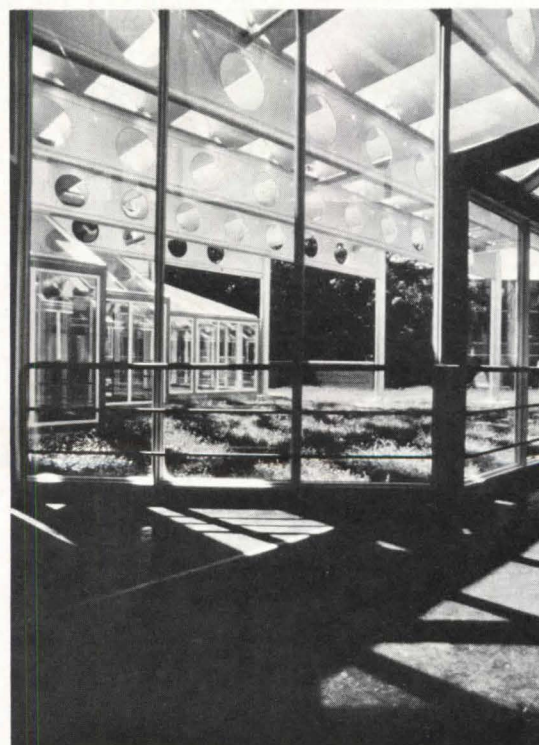
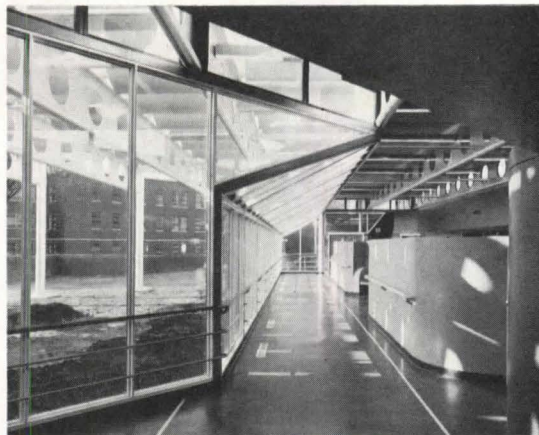
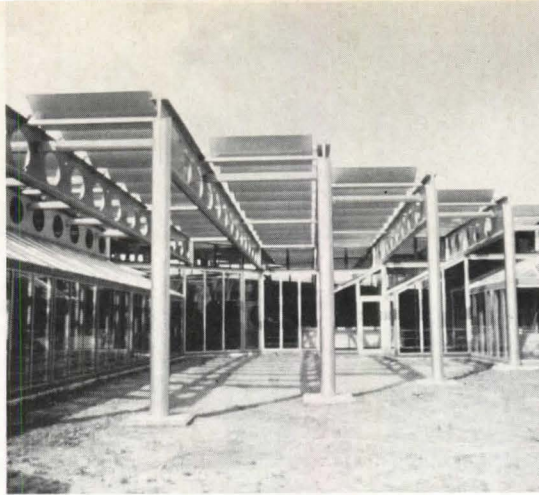
Both sets of people are confined for a great portion of the day within the (albeit rounded) brick walls. To reduce the feeling of confinement, the original program suggested increased sunlight and visual contact with the surrounding environment. In addition to the round clerestory windows and round view windows in the patients' rooms, vast areas of glass open one whole side of the building to a landscaped, wall-enclosed area. While patients do not often partake physically of the space, their visual contact to the world outside is maximized.

It is a costly facility. At \$70 per sq ft, the architects could afford custom perforation of steel beams. The bottom chord of these members was conceived in a circular geometry, defying optimal structure for formal order. Operable fiberglass louvers are designed to shade the main nursing facility. They leave the administrative space of the building and entry in full sunlight, to be compensated for mechanically when needed. Storage space in the basement of the building was eliminated because of budget restraints.

The building asks and answers basic questions about architecture and society. In one sense, a society that pays such a high price for care of its mentally ill and mentally retarded has reached a high level of civilization. If only we could apply such high standards to the inmates of penitentiaries or the children in our schools.

That the building has concentrated so heavily on the creation of a visually pleasing and unique environment for the mentally ill emphasizes the strength of the same experiences on developmentally normal people. How sane it seems to make a beautiful place.

Buildings such as this are not simple to design. Codes and regulations (including energy) passed down by the state for all types of institutions place difficult restraints on situations as demanding as this one. The client and administration of the huge Nevada State School and Hospital (which surrounds the building) take great pride in accomplishing the creation of such a humane environment lodged within the aging confines of its less opulent campus. Communication has not been easy. The chain that links patients, staff, administrators, code officials, and architects was imperfect, as always. Just the same, there is no building where one is more conscious of the frailty of human communication. Its stony silence is too loud. [Richard Rush]



The fiberglass sunshades and perforated beams are two rather exotic aspects of the building's visual richness. The holes in the beams add visual interest and lighten the roof. Only light passes through them; they serve as clerestory windows at the building's extremities. Structural purists will be offended by their disregard for material economy and structural simplicity. They are also a thermal bridge, extending as they do beyond the building perimeter. The idea of the fiberglass louvers has great potential, especially where shade and view are desirable. But the architects soon learned that the question of shade cannot be separated from the issue of glare. The nurses revert to the summer shutter position in winter just to avoid the glare from the sky. The architects also found that their use of shutters had been too timid; the administrative areas are overexposed to both the light and the heat of the sun. The sculptural impact of these elements is nowhere more apparent than from the nurses' station (bottom right).

Data

Project: Paul L. Barone Medical Building, Nevada, Mo.

Architects: Abend Singleton Associates, Kansas City, Mo.; Stephen N. Abend, principal in charge.

Client: State of Missouri.

Site: flat site at an existing state institution.

Program: provide a one-story building to connect (underground) other existing facilities and house both a nursing unit for non-acutely ill patients and an outpatient clinic for routine medical services.

Structural system: steel construction: custom fabricated perforated steel beams on steel pipe columns and steel bar joists bearing on structural steel stud walls.

Major materials: brick veneer on steel studs, insulating glass, fiberglass louvers, gypsum board walls (see *Building materials*, p. 224).

Mechanical system: forced air system served by central plant steam and chilled water.

Consultants: Bob D. Campbell and Co., structural.

General contractor: V.S. DiCarlo General Contractors, Inc.

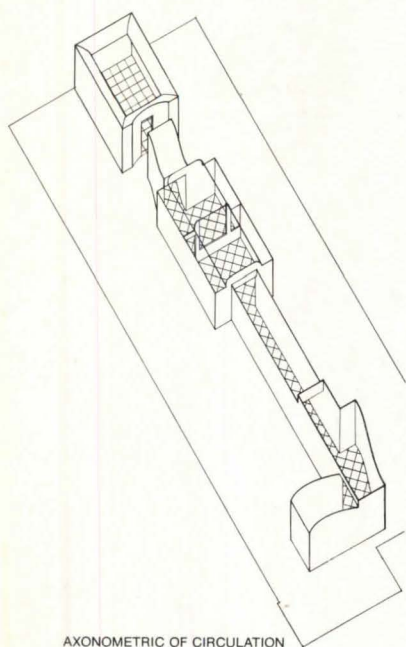
Costs: \$1,650,000.

Photography: Paul S. Kivett.



Crow's-nest refeathered

Perched in the framing of a massive bridge, a small office building that was succumbing to the elements has been resurfaced, and its interior transformed into architecture.



AXONOMETRIC OF CIRCULATION

Data

Project: Rehabilitation, Tobin Bridge Administration Building, Boston.

Architects: Andrea Leers Browning Associates (Andrea Leers, principal, John W. Kuipers, Jr., project architect).

Client: Dept. of Engineering, Massachusetts Port Authority.

Site: in framing of bridge, 100 ft above ground.

Program: headquarters for toll collectors, supervisors, maintenance personnel; 6000 sqft; uninterrupted operation during process.

[Data continued on next page]

If there were prizes for dealing with unpromising commissions, Andrea Leers Browning Associates would be a strong contender on the strength of this one. The little administration building slung just beneath the toll booth of the Tobin Bridge—for lack of available land below—had been completed without benefit of architect in 1950. By 1980 its steel skin, though coated with green bridge paint, was crumbling under the onslaught of the tangy air over Boston Harbor and the salt solution that dribbled from the bridge deck in winter. Its uninsulated walls and continuous bands of industrial sash were doing little for workers' comfort, despite massive infusions of electric heat and air conditioning.

The rehabilitation task came with built-in handicaps: construction could not interrupt round-the-clock operations; working at this height and handling materials presented special problems; and the job was too small for strong appeal among contractors competent to execute it. The result was construction cost several times that of a comparable conventional building.

The Massachusetts Port Authority, which took over operation of the bridge a few years ago, could have resurfaced and insulated the little crow's-nest without outside professionals, but its Engineering Department policy is to bring in architects when dealing with buildings for human occupancy.

After Massport had consulted the architects, the scope of the commission expanded. As the needs of the occupants were reviewed and discussed, it became clear that they could benefit from more than new exterior walls. The bridge's clerical and supervisory workers are, as Massport engineer Marilyn Tobey puts it, "encapsulated" here every working day. They did have dramatic views of the harbor, but internally, there was nothing but repetitive cells, painted green. Toll collectors, officials attending board-room meetings, and purchasers of bridge passes all traversed a uniform corridor and used identical doors on either side.

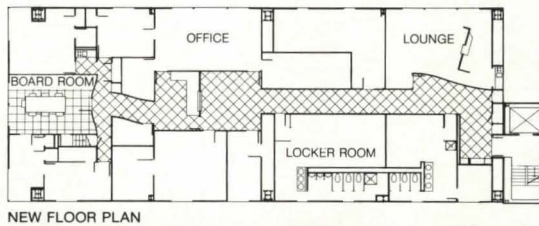
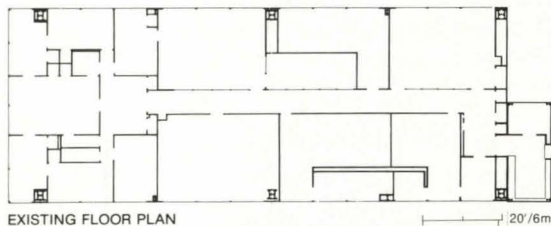
The redesigned interior is processional: from the elevator, one passes through a zone of toll collectors' services into a wider lobby that marks the beginning of the administrative area. Special spaces such as lounges and board room are distinguished by translucent glass-block partitions that transmit daylight into the corridor; ceiling height changes from bay to bay.

Visitors are clearly oriented by the large window labeled "information," centered on the corridor. Behind this transverse barrier, the circulation line that detours around the information desk is returned to the axis by S-curved walls before ending at the axial board room. The color scheme is strongly organized in two narrow ranges: ivory/beige for most floors, walls, and other items, such as lobby seating (not chosen by the architects); red for door frames and certain walls, with a close-harmony maroon on doors.

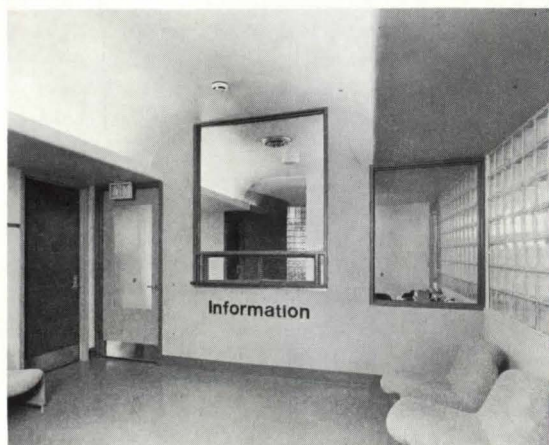
The interior certainly succeeds at differentiating areas and indicating a hierarchy. If anything, it goes too far, with more formal devices than can comfortably fit into a space of this size for such practical functions. There is a bit of contradiction between the light, streamlined feeling that prevails and the apparent weight of the glass-block partitions. One senses a certain witty intention to fill this once-monotonous space with formal and spatial incidents, but that doesn't justify them all. Undeniably, though, the design should help keep workers alert.

For the exterior, the architects specified a coated steel panel that promises to survive dirt and storm; given the available neutral hues, they alternated ivory and beige from bay to bay. The new red-framed, double-paned windows have spandrel glass above them to carry the vertical divisions up to a crisp roofline. An existing maintenance catwalk around the building at window-sill level has been painted the light red of the interior door frames. In color, the building is now consistent, inside and out, and contrasts nicely with the green of the enveloping bridge frame.

The color relationships between interior, exterior, and bridge can all be appreciated as one looks out through the catwalk railing and the network of bridge steel, toward the harbor and city that called this odd little building into existence. [John Morris Dixon]



Hovering 100 ft above a containerport, the structure is reached from above and below by elevator. Internal circulation (drawing opposite) is deflected by main desk (far left), returned to axis at board-room door (near left).



Data continued

Structural system: existing steel frame, concrete floor slab, steel roof deck, new steel subframing.

Major materials: new steel wall panels and window frames, insulating glass, wall insulation (see Building materials, p. 224).

Mechanical system: revised existing electrical heating and a.c. systems.

Consultants: interiors by architects; Melvin F.H. Jay & Associates, structural; Progressive Consulting Engineers, mechanical; Lottero & Associates, electrical; Robert W. Sullivan, plumbing; James E. Gui, specifications.

General contractor: Solimando Construction Co.

Cost: \$800,000 (actual; 1980), includes premium for working conditions.

P/A Second Annual Conceptual Furniture Competition

This year's jury selected seven designs for award and thirteen for citation, ranging from the purely theoretical to the inventively utilitarian.

What a difference a year makes! Despite a new low—an unsigned peanut-shaped casket—this year's entries were, on the whole, stronger than last year's, more polished in their presentations, more international (from 21 countries), and more favored by the jury who chose 20 altogether for distinction. Members of the jury were Viennese architect Hans Hollein; architect and historian Kenneth Frampton; architect, ex-curator, graphic and industrial designer Emilio Ambasz; architectural historian David Gebhard; and Los Angeles architect Coy Howard. After the judging, they were asked to reflect on both the competition and the state of the art. Excerpts of the discussion follow.
[Nory Miller]

Ambasz: Architects are getting concerned about interiors, an area of research that was completely neglected while they were pursuing urban-scale things, which are really beyond most of the logical and intellectual instruments they have. There is a certain utilization of the interior as a last refuge for all freedom, the last possible one. So the object acquires a totemic quality.

Hollein: I wouldn't quite agree that this is a question of escapism. I think it's a renewed awareness of how important the interior is for your well-being and your experience. Interior design used to be a derogatory term for architects.

Howard: It seems to me also that architects are becoming involved with the actual act of making rather than just conceptualizing. When you actually make something yourself, you gain a lot of information, you are able to improvise in a whole different way. The shift is toward objects that have a very intense character. The pieces you see are going to be more idiosyncratic, and they're going to rely on those judgments that one makes right at the moment.

Ambasz: There is a high level of concern for texture, for surface, for ornamental qualities. Forms and shapes don't have to be infinite anymore. The Modern movement's concern for the long journey that would take us from here to utopia led to a high level of neutrality. Now we are starting to regain concern for the 24 hours of the day that take place in an inte-

rior. The problem, in this time of trying to fulfill the theater of the interior, trying to stage our lives in the interior, is not to forget that there is a thread that will hold the pearls of one day to another, which means concerning ourselves with the social scale of architecture as well.

Frampton: I think it's a very recent trend that the design profession is so interested in making furniture for their own homes and projects.

Howard: Architects have always made their own furniture. I think what is actually a little fresh is the way it is stepping outside the architectural vocabulary.

Frampton: It's a strange issue in some ways, because Italian architects have been designers in the more general sense. But if you take Anglo-Saxons, over the last 20 years there has been a relative resistance to doing that, and there are still many who have given no indication that they intend to do so.

Hollein: I can only talk for me and the world around me, but in the buildings I design, I want to contribute to the objects that furnish it.

Frampton: One of the most disturbing things, remembering Hans saying he was disappointed with there being no entries that really conceived life in a different way, is that there were many pieces hovering on the edge of being art, pieces with a dependence on imagery, and not just a solution to a design problem. While I think that produced some very interesting pieces, I think it could also be at the unfortunate price of designers not taking a more generous approach to what Emilio referred to as our need for a 24-hour day: the eliminating of certain problems by taking a particular approach to the whole environment at one end of the scale; at the other end of the scale, the poetic possibility of detailed refinement arising out of everyday life.

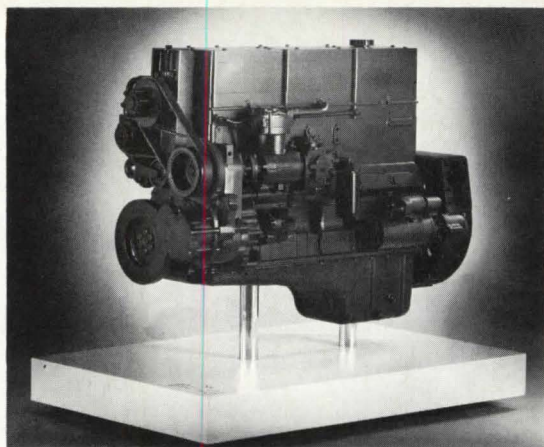
Howard: You're talking about the bandwagon effect of designers, people looking for the next hot image as compared to saying: "Hey, what am I interested in?" But we are also seeing some authentic creative behavior.

Gebhard: It seems to me, from what we've been looking at, that there are two directions apparent: one is to take furniture out of its normal context and plunk it into the world of high art, and the other is to take it back into some sort of historicism.

Howard: I think you're absolutely accurate. The interesting thing is, when they move into art, the art tends to be really bad abstract art.



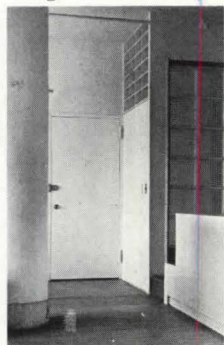
Emilio Ambasz



Cummins N14 engine designed by Ambasz, chief design consultant for the company.



Kenneth Frampton



Detail of Frampton's loft.

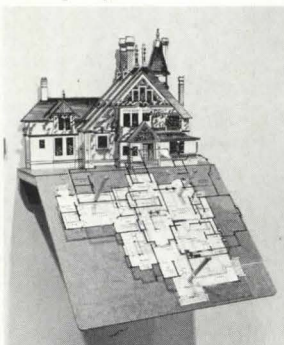
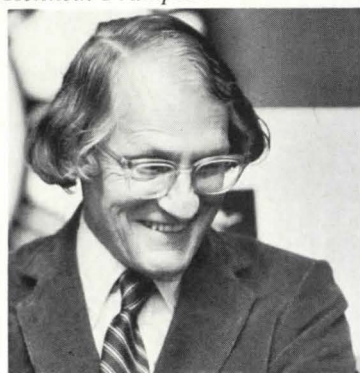
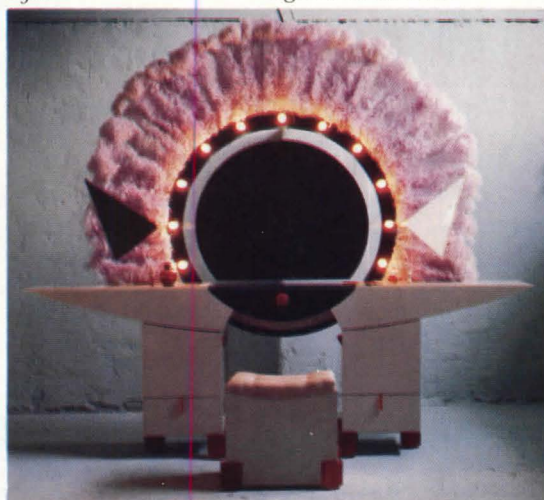


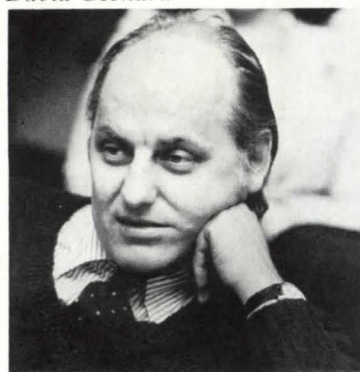
Photo from a Gebhard-organized exhibit.



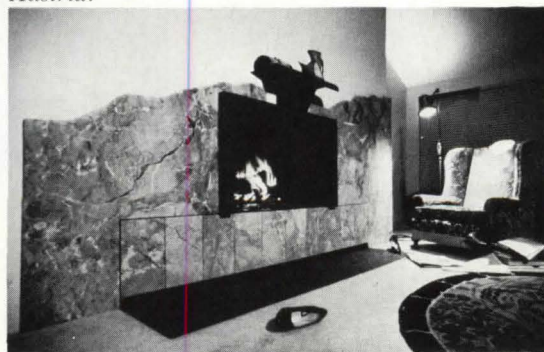
David Gebhard



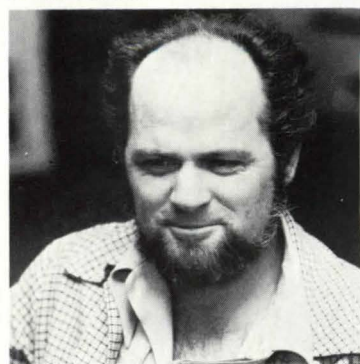
Hollein's latest, a vanity in production by MID of Austria.



Hans Hollein



Fireplace from a Howard-designed condo.



Coy Howard

It really didn't tend to be at the edge of what's happening in the art world today.

Frampton: And yet we have tended to give awards to those works, not to historical works with two exceptions.

Howard: I think the point is that designers are not well educated about the cutting edge of art.

Ambasz: But that was the complaint about the 1920s and 1930s. The architects were already quite a few years behind the painters.

Howard: I think there was apparent in the entries a lot of major differences from what one would find available in industry, at least in this country.

Ambasz: Design as traditionally practiced answers questions, and what we saw was the making of objects that ask questions, a very different kind of activity. But in this kind of object in Europe, 12, 15 years ago, there was more of an ideological content. Here in America attention is far more addressed to form and to surface.

Howard: But that's true in every dimension. It seems to me the real emphasis was the notion of mood. I think this is really ripe now. The emphasis is not with being in a historic tradition; it's really an issue of character, of giving some sort of psychological depth to spaces. We're going to see a lot of one-off specialty items in limited production runs, and they're going to be very intense objects.

Ambasz: The one-of-a-kind piece is gaining tremendous importance. It gives room for the designer to start operating almost as a craftsman. But it also gives room for a kind of cottage industry production. And nowadays, even industry doesn't need to have the things repeated a thousand times. There is an American company that produces 110 million sq ft a year of plastic laminate and very intelligently has one line of production in marble and wood, another of very smooth, elegant colors for modern architects, and still a third which is involved in very avant-garde, cutting edge type surfaces.

Frampton: But good design represents only a fraction of what is produced. That's where the real limitation of work of someone like Graves is.

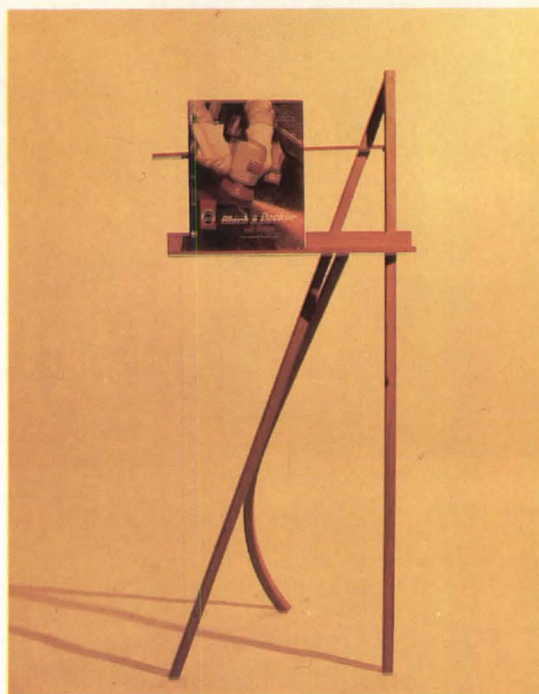
Ambasz: Whether Michael will have an effect by the mastery of his details is one thing, or will have an effect in an attention to the history of furniture, where details and ornament were important, is another. In Italy, the contract industry is always watching the avant-garde.

Hollein: I don't think it's necessary that furniture which makes a statement has to be reduced to the limited edition. There are plenty of examples of small companies that turn out excellent furniture, that don't have to gear up to build 100,000 units. Furniture making a comment is not new. The Wassily chair by Breuer was not a solution to a problem, it was a comment or prototype of his vision of the universe.

Award

John E. Scofield

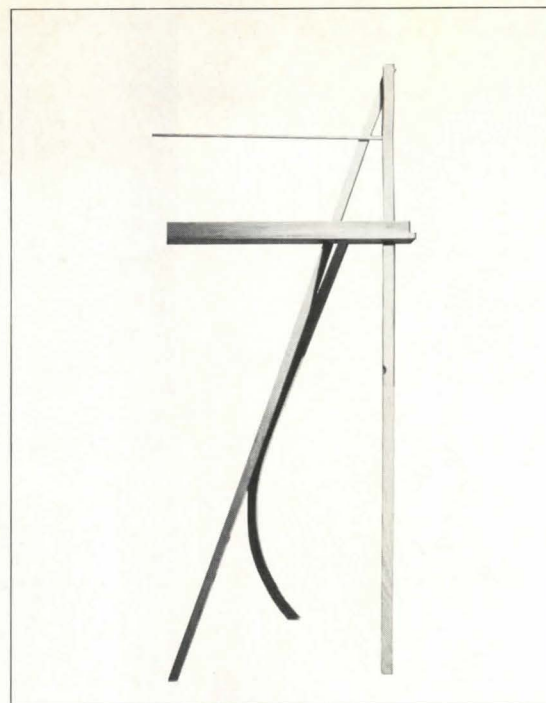
Greenwich, Ct



Project: A white oak music stand—45 in. high—that folds flat for shipping and storage to 18¼ in. by 2 in. Fasteners and pivots are internal. No tools are needed for assembly and no components are loose. The designer also suggests as materials aluminum, steel, fiberglass, or plastic.

Jury comments

Howard: I think this is just a superb piece. It's



very lean and elegant and lyrical.

Frampton: I agree it is a terribly beautiful thing, terribly slender, very graceful. It has such a balletic quality to it with that curved leg.

Ambasz: I think the upper horizontal support may be a little weak. The only other problem I can see is that when it folds it doesn't become a tube, it becomes a plane. But then who cares, since it is so elegant?

Award

David P. Dowler

Corning, NY

Project: "An Afternoon Wine Table" of pine and plywood. The designer wanted to create a useful object with presence beyond simple function, but made of ordinary, easy to obtain materials. The box is set at an angle and passes through the table surface, creating a tension between being separate and combined. The box contains four cast glass coasters for the wine glasses. Dimensions are 29 in. high, 21 in. wide, 21 in. deep.

Jury comments

Hollein: I vote for this one.

Frampton: I'm not amused by this fixed box, number one. Number two, I'm not excited by the proportions. I appreciate the sort of perverse crushed quality, but I think it's very heavy-handed.

Howard: I find the piece, though Mission style, has an enigmatic quality that makes it very provocative.

Frampton: I wish it could have been left unpainted.

Howard: I don't know. There's a certain dumbness about it that enhances it, that gives it poignancy.

Ambasz: This transformation of ordinary materials into something precious by pushing the box into the table is being taken to mean much more than it really is.

Hollein: Maybe it's not that masterfully carried out, but there's an idea to it.

Ambasz: But the idea content it provides is very small and is consumed very fast. It is not a strong piece.

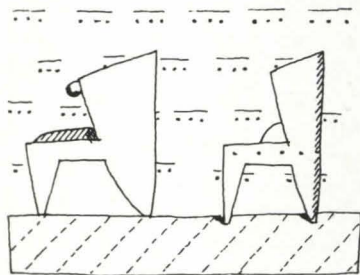
Howard: To me the object is about emotive power.



Award

Michael Graves

Princeton, NJ; with Roger Crowley and Keat Tan, assistant.



Project: This side chair is conceived in two versions. In one, the body is veneered in bird's-eye maple, with ebony handrests. In the other, the body is lacquered and the handrests are mahogany with ebony brackets at the seat level. The seat is upholstered in either silk or leather. In both versions, a small mother-of-pearl tessera marks the center of the handrest. Dimensions are 32¾ in. high, 21½ in. wide, 20¾ in. deep.

Jury comments

Hollein: I like it. It looks like a very comfortable chair. I also like mother-of-pearl.

Howard: It's really well done. The materiality of the maple version is far superior to the other. And the fact that the material has been reduced to almost a painted surface gives it a special charge. It's strange to take a material so precious and treat it as if it's cheese; somehow it sets up a nice tension. The lacquered version, though, is weak.

Gebhard: The legs are purposely crude, and of course the shape of the chair I associate with Viennese.

Hollein: It's very strongly influenced.

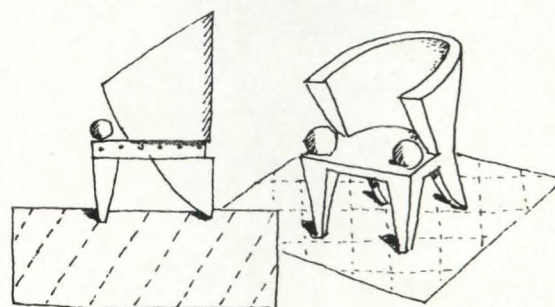
Frampton: The piece has been carried through with consummate skill.

Howard: It doesn't extend the genre, however; it stays there firmly planted and doesn't charge out of it at all.

Ambasz: It is an impeccable interpretation of the model from which it is derived.



Photo: Acme Photo



Award

Richard Davidson

Albuquerque, NM

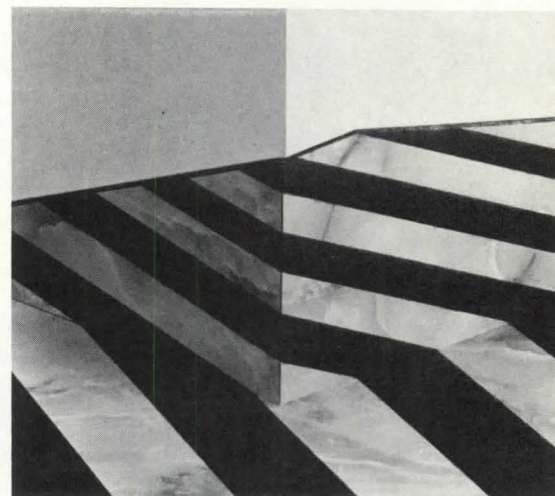


Project: A corner table that wraps around a corner instead of fitting into one. Depending on the light source and angle of view, the piece distorts, separates from the wall, or exhibits illusionistic properties. Stylistically it is patterned after postwar stainless and Formica kitchen tables, in black and Victorian onyx Formica. The piece is cut from a 3-ft by 5-ft rectangle.

Jury comments

Howard: Despite the fact that any designer who embellishes with stripes or checks should be shot, this is a real winner.

Ambasz: It becomes wallpaper at one level, table at another. It makes the wall a part of



the furniture. It is the only piece with a successful hybrid quality.

Howard: It is the only piece that wills new issues into being—an appropriate hybrid between object in space and space-defining object, two-dimensional and three-dimensional, high-art formalism and low-art imagery.

Hollein: It's a very smart piece.

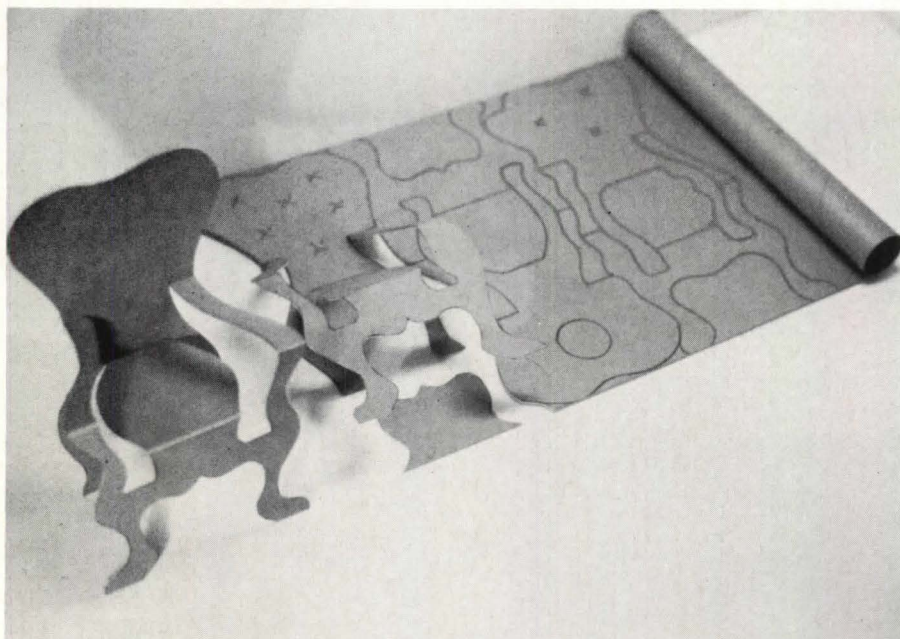
Ambasz: It is a difficult situation—how to turn a corner with a table—and it has been done brilliantly. Where traditional perspective suggests a table vanishing into a room, here you have something of the reverse—the suggestion of a table entering into the mass—provided you stand at that one point from which you can obtain the illusion.

Award

Peter Favot

Kanata, Ontario, Canada

Project: A furniture system fabricated from rolls of flat sheet material—metal, plastic, wood, or composites—cut by a tool that simultaneously bends the edges into a form of greater structural strength. After cutting, the piece is bent into the finished product and fixed with metal struts or left collapsible with the addition of fasteners and hinges. A computer-programmed, low-volume production system is intended to change easily between Modern, Tudor, Baroque, or other styles with little material wastage.



© P. Favot, January 15, 1982

Jury comments

Ambasz: This has no chance of standing.

Howard: I think it's really beautiful and fun. You have to sit in this in a wrinkled suit, or maybe it should just be upholstered in a wrinkled suit.

Hollein: It is very conceptual.

Ambasz: It took a tremendous amount of effort to cut that out of a sheet of metal, which then doesn't have the beauty of being a great shape.

Hollein: I think you assume that this is a conceptual piece, that stamping it out of a sheet of metal is very difficult and costly, but as a concept it is interesting. One thing that is interesting conceptually is that in between the seat and the armrest there is no waste.

Ambasz: The conception of a piece made out of one material has brought about some very marvelous pieces and sometimes some incredibly overwrought pieces.

Gebhard: From a conceptual point of view, this is one of the most interesting pieces we've selected.

Frampton: I'm not convinced about that at all. From the point of view of reality, it's crazy. As an object I think one would tire of it very easily.

Howard: The cookie-cutter quality of it is really quite appropriate.

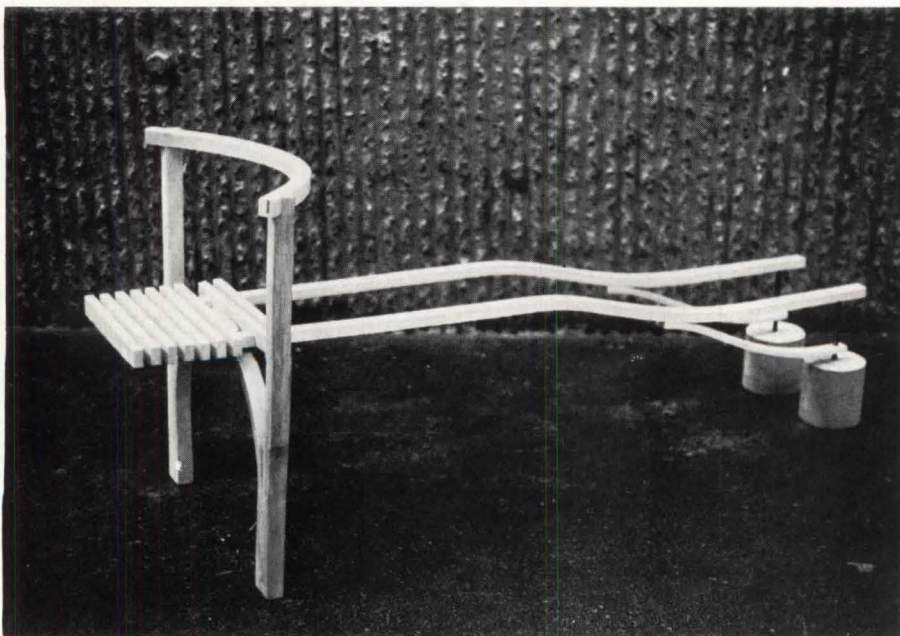
Ambasz: I'm sorry, I think you're completely wrong. I'm against an award.

Award

Kari R. Nordström

Fair Haven, NJ

Project: Called a dining chair by its designer, this piece is intended to examine the nature of chair support as an act of balance and weight distribution. The front legs are a fulcrum point, the rear legs weigh down. Seat, back, and extension are of bent and laminated strips of pine; counterweights are concrete. Dimensions are 6 ft long, 15 in. wide, 16 in. high. Concrete legs have a diameter of 1 ft.



Jury comments

Frampton: Obviously, this is a surreal piece. It occupies that curious area between furniture and art, despite its presentation in an architectural context.

Ambasz: What I find fascinating in this project is the hierarchic countenance. The seating plane seems to originate in the memory of some long forgotten ceremony. I can imagine footmen standing seven feet away waiting to serve champagne at any moment to whoever sits there.

Frampton: I think this is an absurd rather than a ritualistic piece and surely has greater validity as a work of art than as a chair. From a formal point of view it has a great deal of elegance, save possibly for the broken rhythm of the seat slats.

Hollein: I like those very long supports.

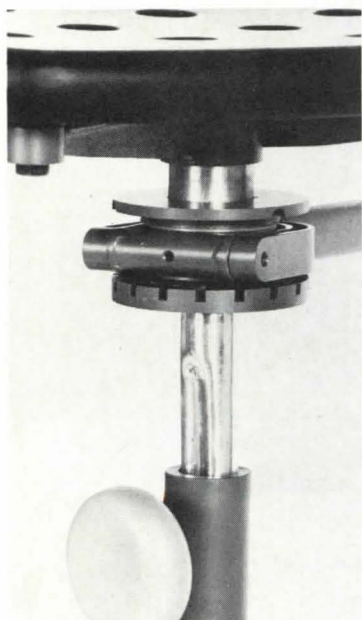
Ambasz: Formally it has been very well executed. Notice the bar that has been removed to reveal the leg connectors. Actually it is very accomplished at the end where the rickshaw-like supports rest on the two cylinders, which are some sort of shock-absorbing cushion keeping it from touching the ground.

Howard: How long can the piece oscillate between the explicitness of chair and the implicitness of sculptural abstraction? Is the question powerful enough to resonate for any length of time and hence maintain its own dilemma? For me the two poles need greater divergence.

Award

Sarah Stallard

London, England



Project: Adjustable work chair with footrests at two levels. The arm adjusts by lifting and swiveling. Seat height is secured by a screw knob and adjusted by shifting a spike along a tapered groove. The frame is 14-gauge steel in a variety of bright colors. The seat is molded polypropylene. The back is skinned flexible polyurethane foam.

Jury comments

Frampton: A witty variance on what is, after all, a fairly standard solution. The vibrant use of color is played off in a lively way against the mechanical components and fittings.

Howard: I think this is competent, but the witty image Kenneth speaks of I find extremely underdeveloped. It has a kind of 1960s predictability about it—call it English pragmatism in drag as an Italian Robert Probst. No doubt all the right sources, but artificially inseminated rather than passionately conceived.

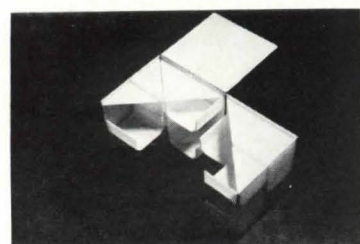
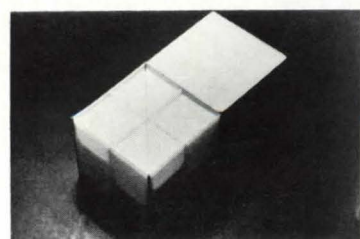
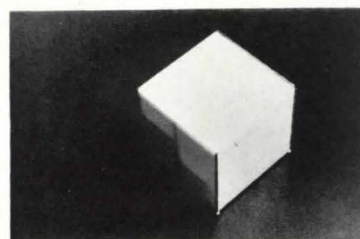
Hollein: I think this is a rather good piece because there is something to put the seat on. But I wish it had a device with which to tilt the seat. It can be improved.

Ambasz: The elements I would advise the designer to improve would be to be able to tilt the seat forward so that it doesn't inhibit blood circulation, and as the seat tilts forward, so should the back. The main reason why this should get an award is that it is one of the objects which has shown a concern for that traditional designer's concern, the work place. The design itself is interesting because it provides the two heights of footrest without any type of mechanical needs, so it would be truly economical to make.

Citation

Igor Barta

St. Sarnia, Ontario,
Canada



Project: A 4-ft cube that unfolds to display magazines, newspapers, books, and other merchandise in open areas such as airports, hotels, shopping centers. The piece is lightweight—a white enameled plywood frame with signal red pressed plastic shelves—highly mobile and easily manipulated into various configurations.

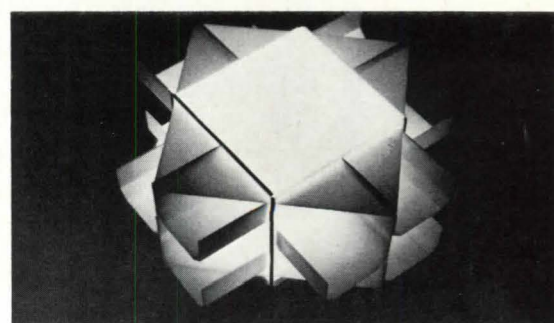
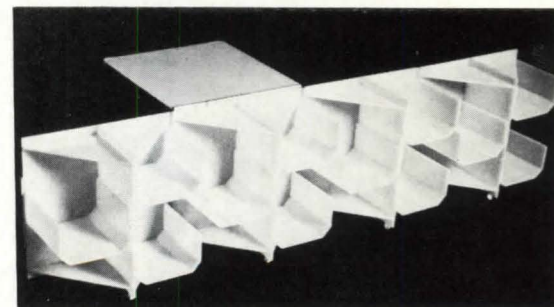
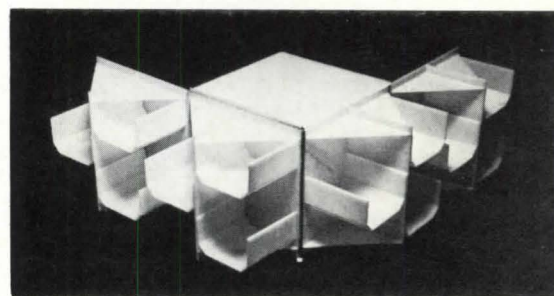
Jury comments

Ambasz: I found this clever in the way it stores magazines; in the way you can see the covers of the magazines in display; and in the way you can have different types of display.

Frampton: My only reservation is that it has a slight tendency to be overdependent on geometry, and nothing should be that dependent on it. . . . And now if it would please everyone to get in line and get into it.

Howard: It's a shame that we haven't seen pieces like this that combine geometry and a sense of really knowing how to put something together with a more lyrical quality. That's really lacking in all the pieces with an industrial tone to them.

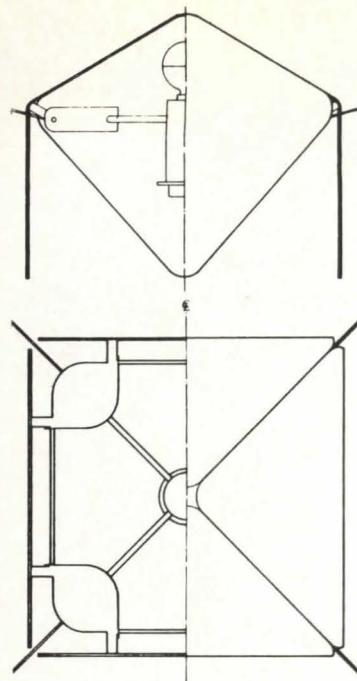
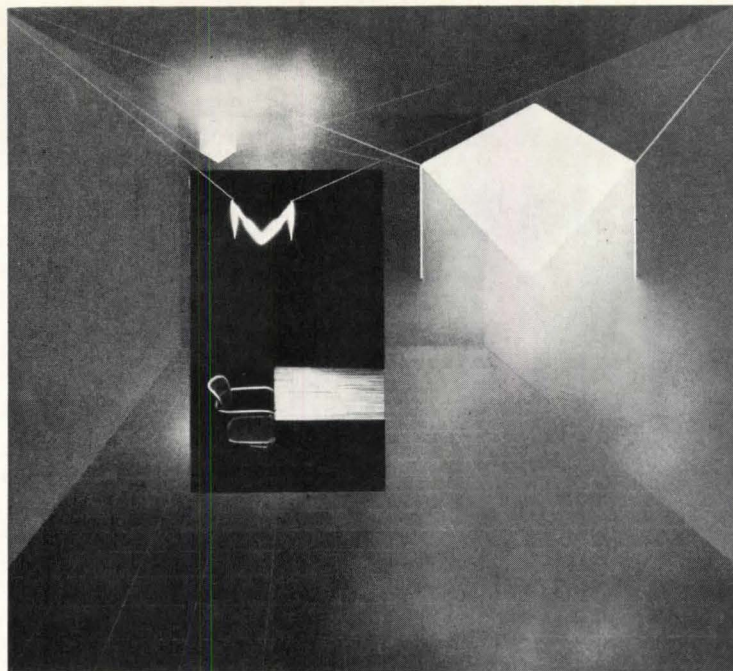
Hollein: I think it's a well thought out system. The problem for me is that this is not really a conceptual piece; it's a good shelving piece.



Citation

Eric Ping Pang Chan

New York, NY



Project: A light fixture that floats in space, is movable to any point in the room, and creates various atmospheres. It is hung by four wires attached to retractable reels with locking devices. The four pivoting aluminum shades act as reflectors. One control knob releases the locking devices and adjusts dimmer. Dimensions are 13 in. long, 13 in. wide, 11 in. high.

Jury comments

Frampton: Quite clearly the best among the

lighting designs submitted. Above all for the integration of the spatial idea and the quality of the light.

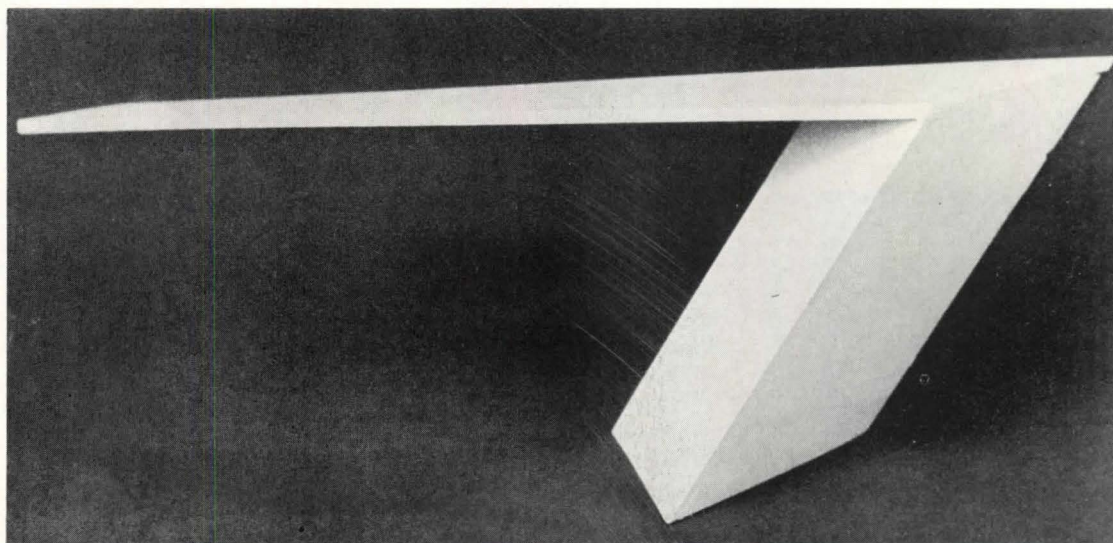
Ambasz: What I like is the suggestion of an enlightened presence. But whether it is a lit object or an object for lighting is another question. Even so, it is very attractive.

Gebhard: Of all the lighting fixtures, this is the most inventive. Light establishes the character of the environment, rather than the normal elements.

Citation

Frederick M. Janeway

Canton, N.C.



Project: Cantilevered table, painted white, 30 in. high, 24 in. deep, 84 in. long. Base is hardwood frame covered with $\frac{3}{4}$ -in. plywood. Top is hardwood frame covered with $\frac{1}{4}$ -in. plywood. Framework is lapped and mortise-and-tenon. Top is bolted to base before application of skin. The design was studied in three dimensions using pine, hot glue, and a bandsaw, and the designer reports that it works well as table or desk.

Jury comments

Frampton: Perhaps the most striking thing about this table is the way it successfully interprets formal concepts derived from modern sculpture.

Howard: I like it. I think this is more interesting than the other sculptural pieces we've seen. Formally, however, although the designer might disagree, it is a better table than sculpture. It should be marketed under the name of "Ironing Board Contempo."

Hollein: I believe the borrowing from Grosvenor and all the minimalist sculptors is too obvious.

Citation

Mark Cigolle and
Ralph Lerner

New York, NY



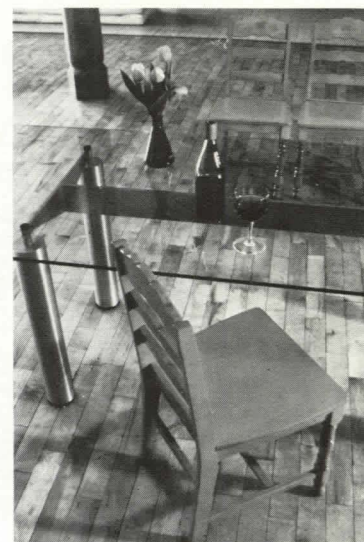
Project: Matte finish natural aluminum and glass table, 29 in. high, 35 in. wide, 90 in. long.

Jury comments

Frampton: It is a mannerist reinterpretation of Le Corbusier's table tube d'avion. The irony resides in the very massiveness of the cylindrical legs, which finally provide their support through delicate rods. The same

kind of contrapuntal displacement of structural strength is evident in the frame, which holds the legs together: shallow at the point of connection to the legs; deep at midspan.

Ambasz: It has long been a pursuit of architects to express and detach properly. Perhaps the message has been heard many times before, but it is very well done, very well accomplished.



Citation

Vincas Meilus

Brooklyn, NY; Kristina
Lewis-Meilus, assistant.

Project: The "Motel Table" is described by its designer as an attempt to juggle extreme polarities of material, form, and meaning—Venetian Baroque in Formica, polychromed plastic, and polished metal; sensuous curves and vulgar found objects.

Jury comments

Howard: It definitely has its own charm. Good work comes from deviant perceptions.

Hollein: And so does innovation. I like it very much. The positioning of the rectangle and the curved top give a nice shadow.

Frampton: I like the environment it's shot in better than the piece.

Howard: It smacks of something smuggled in, some sort of Tijuana Modern.

Frampton: It's smuggled in from the Madonna Inn.

Gebhard: The thing I find disappointing is the legs.

Hollein: You have to show the readers of a magazine that new times are coming.

Ambasz: And they're exactly like the old ones.

Frampton: But you can't really say that's new times?

Hollein: In terms of material and construction it's very consistent, and within a certain language it achieves what it can achieve. If you take it seriously as an ideological thing, then within its parameters it's a successful piece.



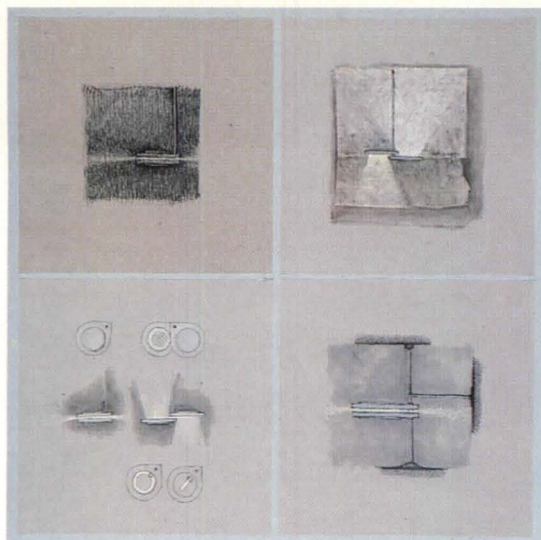
Ambasz: I would keep it in. It is pretty well managed. The man knew what he was doing with that red stripe line; he was in perfect control.

Howard: To me the thing that actually saves it is its proportion.

Citation

Curtis Vasquez

New York, NY



Project: A light that sheds incandescent light downward, fluorescent light upward, and both sideways. Colored green or red tinted gray, it is made from aluminum, steel tubing, and frosted wireglass. With different bases, it can be hung from the ceiling, swung from a wall, or stood on the floor. Dimensions of the shade are 15½ in. by 13 in. by 3½ in.

Jury comments

Frampton: This idea, which unfortunately is very sketchily presented, is primarily to be valued on two counts. First for the simplicity and flexibility of its form and operation, and second for the fact that it uses different qual-

ities of light in a very expressive way.

Howard: A real beauty of a little light. I'm a sucker for all things with slits and paired pieces.

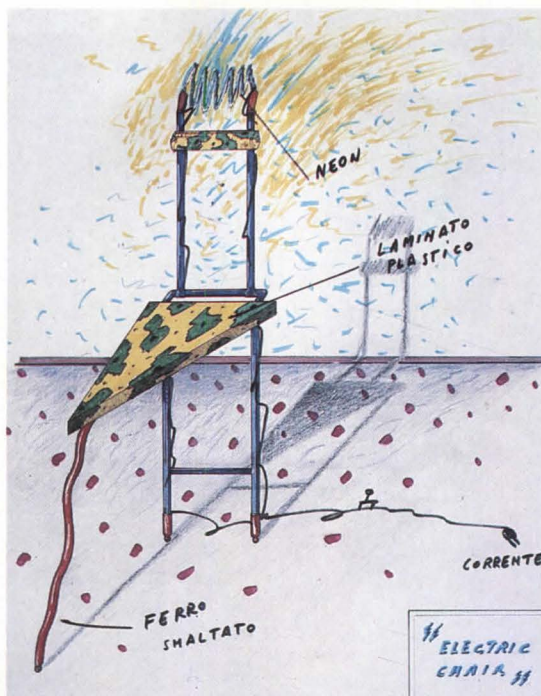
Gebhard: The fact that you can adjust it to do a variety of different things is the most intriguing part of it. It's almost like a miniaturized Rube Goldberg.

Ambasz: I can see many more possibilities than the ones suggested by the two rings indicated here. I could see four or five rings, all of them pivoting on that central rod, and those different rings would contain shapes, filters, and other devices in order to modify, control, or conform lighting. Here the designer shows only two such rings, one containing a fluorescent and one a tungsten tube, and I truly don't believe this will light in the way his drawing shows. I certainly don't believe the fluorescent light will spread itself in a beam, and I do not believe the incandescent light will spread itself in a beam if it doesn't have a far deeper type of reflector. I could not give this any kind of award because I don't believe that it could work. It is only interesting in its suggestion of possibilities.

Citation

Stefano Giovannoni

La Spezia, Italy; with
Surio Giovannacci



Project: Called "Electric Chair," this is 12 in. wide by 23 in. deep by 41 in. high, with a painted metal tube structure, a wooden seat covered in decorated plastic laminate, and neon "electricity" at the top.

Jury comments

Frampton: A refugee from Alchymia.

Hollein: I don't like the name, but it's a nice

piece in the Memphis style.

Howard: I'm against this. Its decorative motifs are really very trite when you look at it. It's not rich in terms of suggestive power.

Hollein: But there's a conscious superficiality about it. It makes a cultural statement.

Frampton: For me it's slightly passé as a piece and a kind of borderline between consumer objects, and furniture, and art.

Ambasz: It's a political device that you can buy on the marketplace and put in your living room, and we are seeing this kind of product being consumed as a way of identifying with an ideology. In a European culture, this type of piece is immediately understood. It is parading as a provocation. It is a successful operation, very successful at masquerading as a political piece. I would have it in to bring out this discussion.

Howard: But a citation brings some form of merit. You're voting for it because it provoked conversation. I vote not to give it a citation for exactly that reason. If there's value in the conversation, we should get a citation, not that.

Ambasz: It is conceptual furniture in its pitfalls. Conceptual furniture can be a far more noble thing than what this represents.

Gebhard: I like the way it works two-dimensionally; like a comic strip, it has a sort of delightful quality about it, as a design that does not have to be realized.

Ambasz: We'll make it a citation so we can get these comments in.

Citation

Jonna Ellis and
David Miller

IKM/SGE
Pittsburgh, Pa

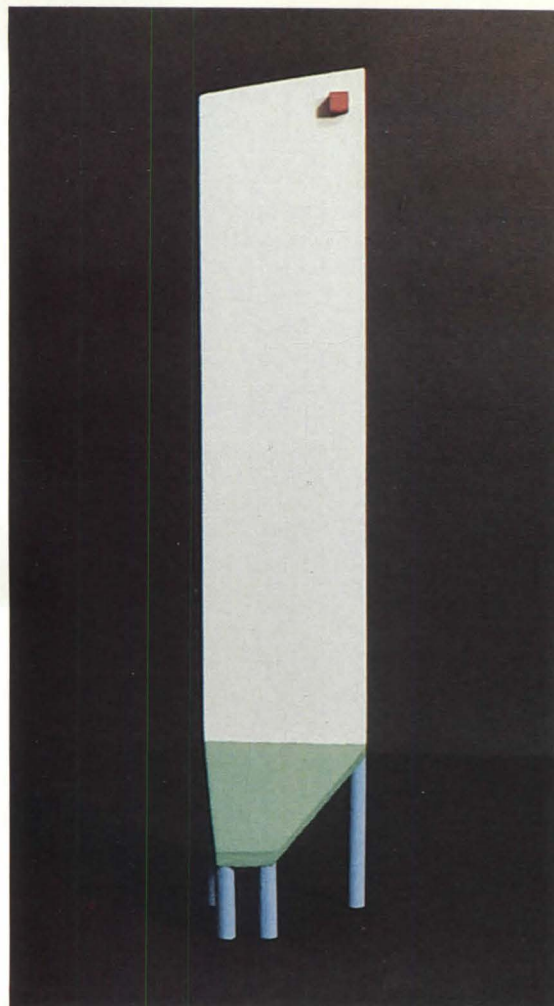
Project: "The foyer chair," say its designers, "has relinquished its normal function as an opportunity to sit in order to become a coat and hat rack and hallway decoration. It is an extension of the typical hall chair found in most homes under a pile of coats, mail, and other odd objects. The angled seat is partly a response to this temptation and partly an indication of its purely significant character." Made of birch with a lacquered finish, it is colored in "chaste blue, submissive green, pure white, and blush pink." Dimensions are 83 in. high, 18 in. wide, 18 in. deep, with an 18-in. seat height.

Jury comments

Ambasz: There is a totemic quality. There you have a chair devoid of any kind of function.

Howard: I think it's really quite wonderful in its properties as an object. Too derivative to be an award. The sort of bound feet quality of that is quite attractive.

Ambasz: It's one of the few that doesn't pretend to be more than a sculptural piece, and it works quite well.

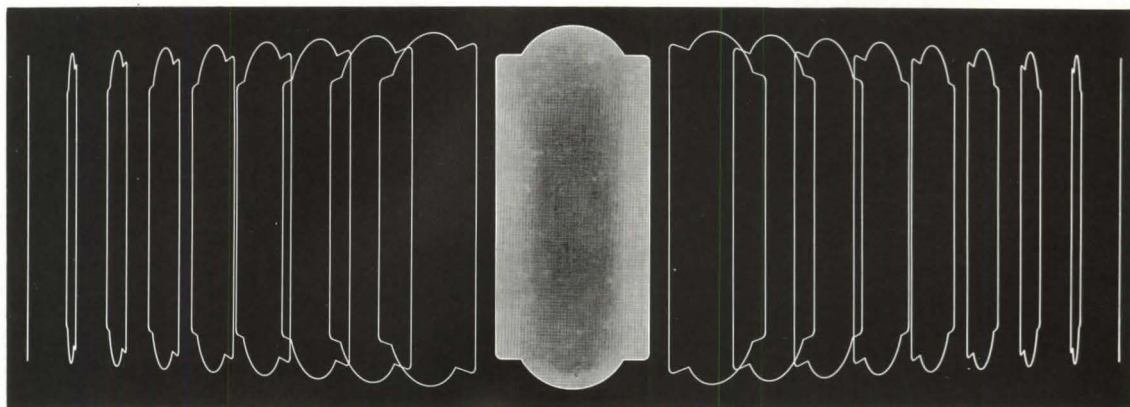


IKM/SGE, Pittsburgh

Citation

William H. Grover

Essex, Ct



Project: "Slices of light" has white cotton knit stretch fabric over white neon tubing, 28 in. by 66 in. by ½ in., suspended on nylon monofilament and supplied with electricity by two fine copper wires. Variations in shape, size, and color are considered practically unlimited.

Jury comments

Hollein: Very good.

Ambasz: It's not new but very well done. Using light in a pure plane has been an eternal pursuit of architects. Here it is almost pure light. Again, it is nothing for lighting; it is a lit object. It perhaps may not be such a grand contribution to the art of lighting. But as an ornamental object, I think it is quite accomplished.

Gebhard: It not only establishes an individual plane in the room, but a plane that can do as much as any other architectural element.

Howard: It has implications that so many of the other lighting pieces do not have. It does take on that spatial aspect.

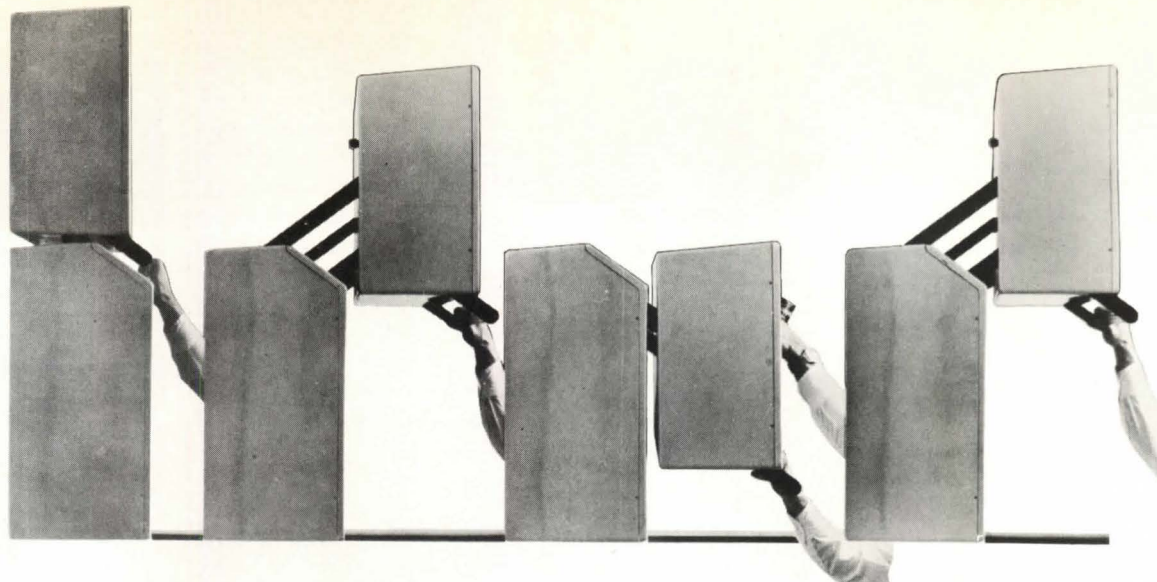
Hollein: But it's too unresolved.

Howard: I am far more excited by the implications of this piece than by the actual piece itself.

Citation

Bruce A. Maser and
Robert Graeff

Blacksburg, Va.
Bruce Maser/Robert Graeff
Industrial Design Program,
College of Architecture, VPI
& SU; Technical Consult-
ant: Bill Sevebeck, Price's
Fork Research Lab.



Project: A movable storage unit that takes advantage of the entire wall height, yet makes all contents immediately visible and within reach. Shells are fiberglass-reinforced plastic, adjustable shelves are wooden, handle bar is aluminum, suspension parts are steel.

Jury comments

Frampton: It's a clever way of getting the shelves down, especially in a kitchen or a laboratory. I think it really would work.

Ambasz: This is very, very well sold. I'm sure the mechanism can well overcome the weight of anything placed on it. Once it goes over a certain position, I am sure the fulcrum would carry it.

Frampton: My only real objection is that I think it's a patent device rather than a piece of furniture.

Ambasz: There are perhaps no separating lines between the stylist, the interior designer, the developer of the product. There are a number of different professions involved in a product.

Gebhard: It's too bad it couldn't be done a little more playfully.

Frampton: It's not so much playfulness. My reservation is that it is not taken to any level of formal refinement.

Citation

R R Caldwell

Los Angeles, Ca

Project: Chair that folds by rotating the frame. Rotation to the left tightens the hardware, rotation to the right loosens it. Hardware is aircraft hand bolts; frame is plywood; seat is metallic vinyl. Dimensions are 30 in. high, 20 in. wide, 17 in. deep, with a 16-in. seat height.

Jury comments

Hollein: I think this is a clever piece of furniture.

Ambasz: Because it opens up in back?

Frampton: Perhaps if you were a chieftain in Mongolia you would absolutely adore having it travel around with you.

Howard: This is a horrible dentist's chair.

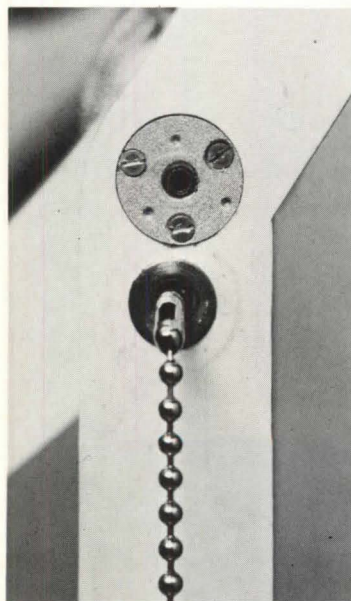
Hollein: I like the strangeness of it.

Frampton: It's a chair for a philosophical astronomer, actually.

Howard: The strangeness is appealing, I'll vote to keep it in.

Gebhard: The thing I like about it is its taking a traditional form—at least those curved forms are what one finds in Roman furniture—but making it very plebeian. It seems to be cut out with a bandsaw, and I find that contradiction very appealing.

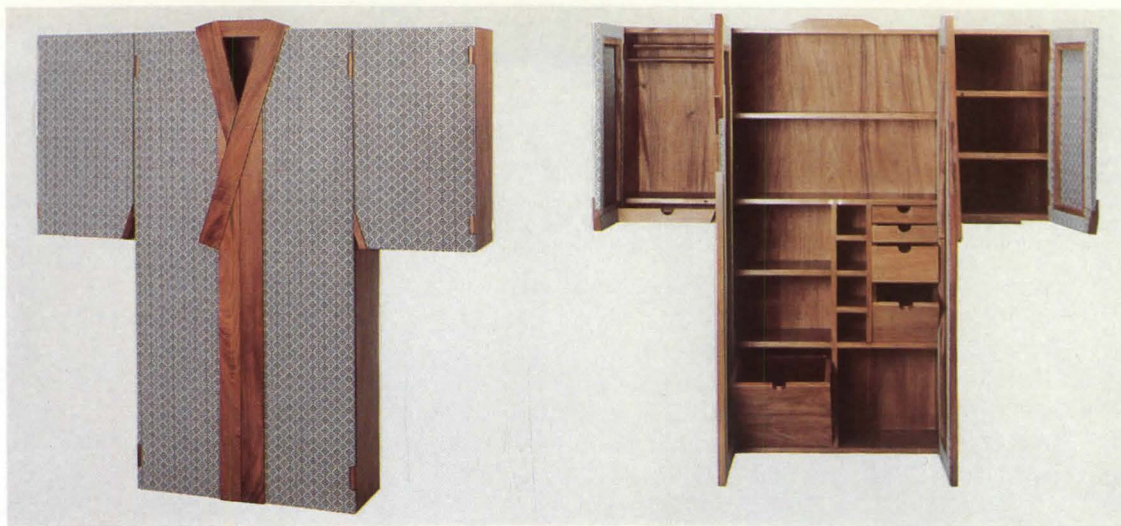
Frampton: It's not a very meaningful contradiction, between pure Platonic elements and the fact that when you fold it, it turns into a very clunky object.



Citation

Virginia Du Brucq

Denver, Co



Project: An armoire inspired by the tradition of storing kimonos on bamboo poles with sleeves outstretched. Of mahogany and fabric, the piece is intended to be wall hung and is constructed in three sections for ease of installation. Dimensions: 60 in. high, 60 in. wide, 14 in. deep.

Other pieces we've seen I'm confident could lead to other pieces. The slightly uneasy feeling I have about this is that the designer has made this thing, and will probably never do it again. I think it's really a one-off idea. But you know, I like it and I think it's worth a citation.

Jury comments

Frampton: I think it is very witty.

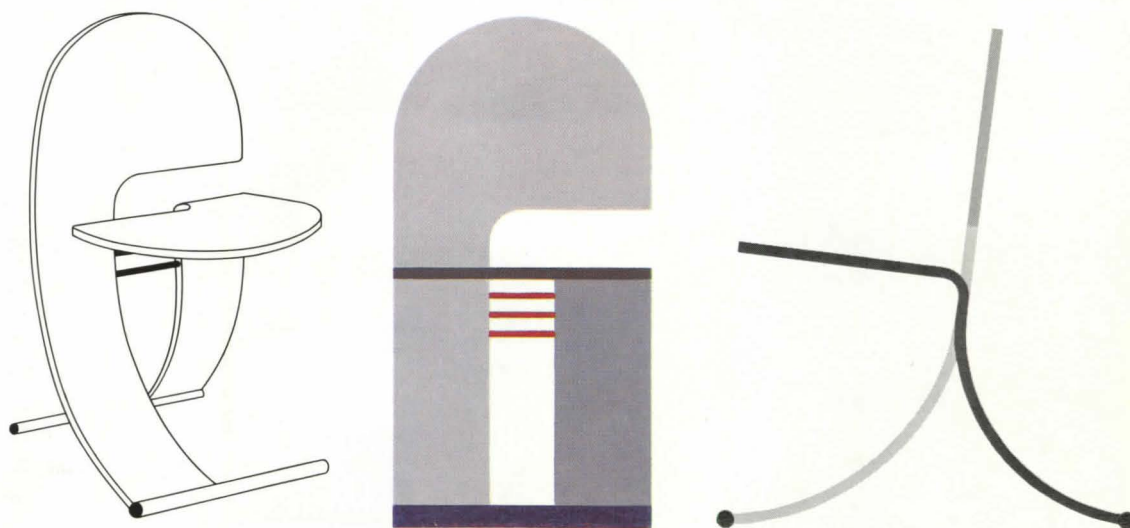
Ambasz: I'm for it provided it is kept always closed. It bothers me that the designer could not carry the quality, the totemic quality, to the inside, such as an altarpiece has when you open it up.

Frampton: I want to add a comment to that.

Citation

Steven Arthur Cooke

Tampa, Fl



Project: Two molded sections of laminated birch connected by three brass rods and supported by two walnut dowels. The chair is finished naturally with a darker shade of birch for the seat. Dimensions: 36 in. high, 18 in. wide, 18 in. deep.

classics—negative and positive space, plane and line.

Hollein: For a conceptual chair I think this is all right.

Ambasz: I would like to see Hans get a really good conceptual piece, but not this piece.

Howard: How loading would actually occur on this chair is very peculiar.

Frampton: If you're concerned with structure, I think it would work very well.

Gebhard: This is the sort of piece that should have a higher caliber so you can pawn it off as a piece of sculpture. It certainly can't function well as a chair.

Jury comments

Frampton: The piece merits a place for the originality and simplicity of the work and for the plastic vitality of the form.

Howard: Clunky and awkward! My two favorite qualities. A good chair for Naum Gabo. It expresses an acute concern for the old

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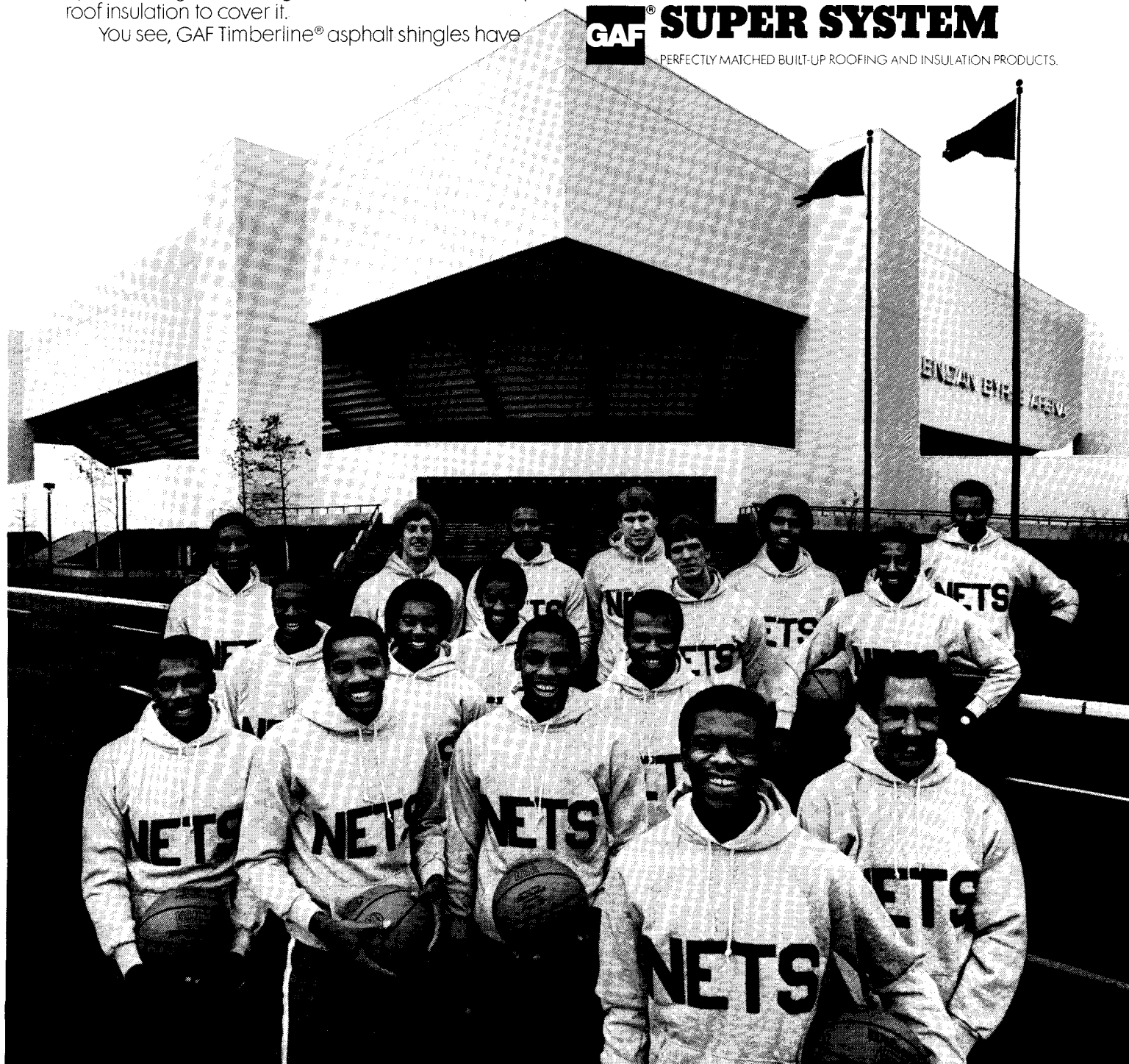
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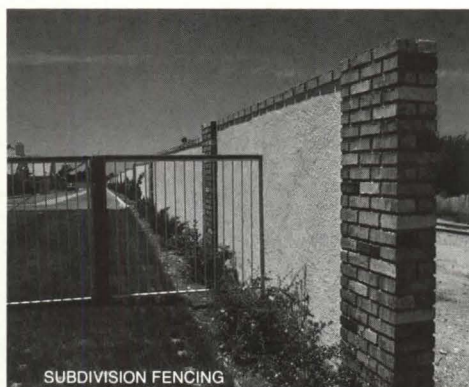
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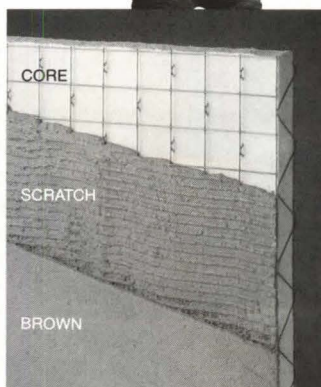
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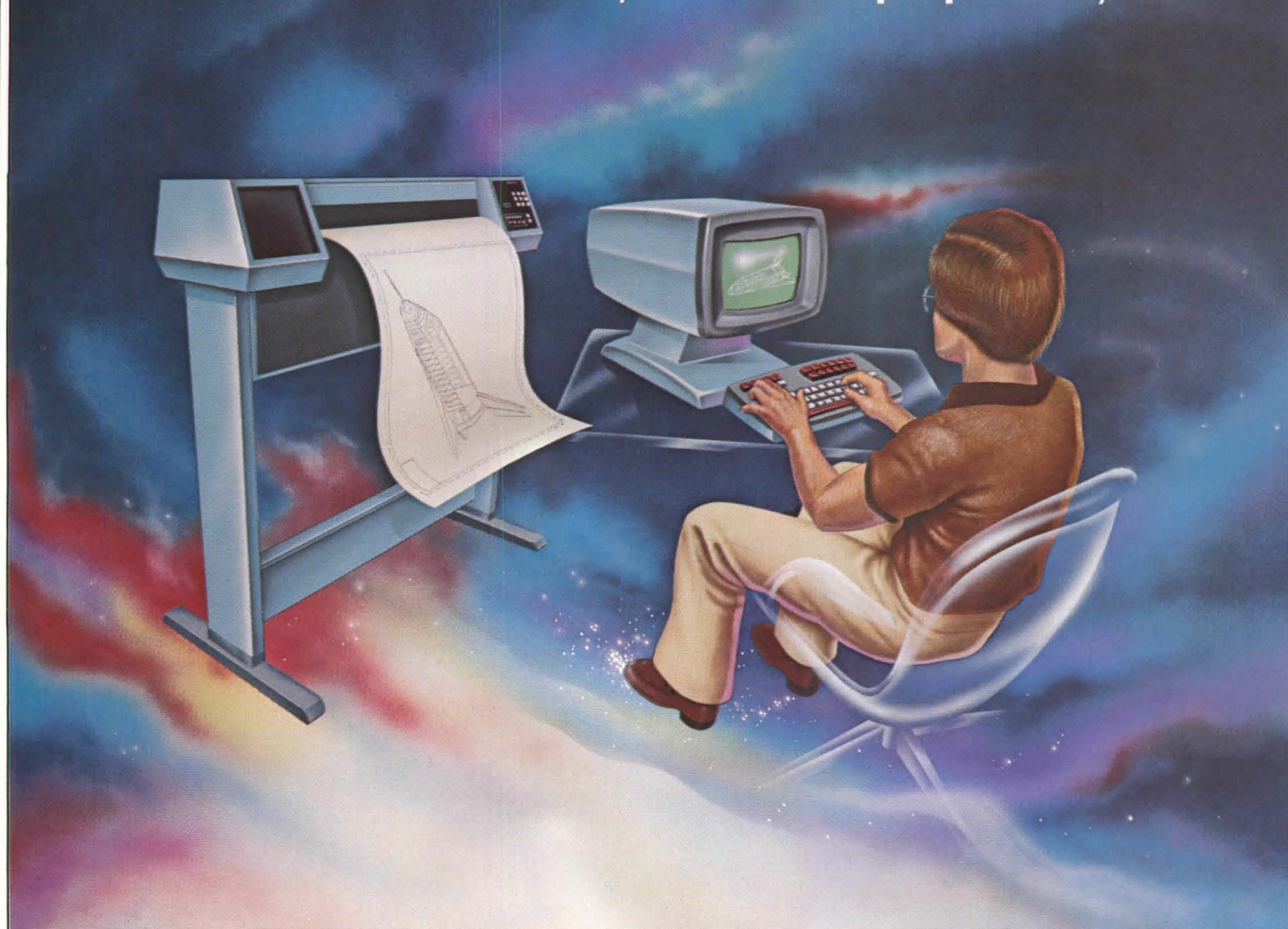
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Edgar Powers, Jr., Gresham Smith & Partners |
| 10:30-11:00 | Working With the Repro Services Firm | International Reprographic Association |
| 11:00-12:00 | How to Find Good People and Keep Them
Project Management and MIS
Buying a Small Computer
A/E Computer Use for the '80's
CADD: What it Can and Can't Do for A/E's
Managing Reprographic Production
Getting the Most Out of Overlay Drafting | Charles McReynolds, C.M. McReynolds
David Burstein, Engineering Science
Kenton Johnson, ECAN
Harry Mileaf, Sweet's Division of McGraw-Hill
Gregory Bloom, CAE Technology Center
Russell Molpus, John J. Harte Associates
Spencer George, Swanke Hayden Connell |
| 11:30-12:00 | Reprodrafting With the Xerox 2080 | Xerox Corporation |
| 12:30-1:00 | Photoplotting and Reprographics | The DuPont Company |
| 1:30-2:00 | Implementing an Ink Drafting Program | Koh-I-Noor Rapidograph, Inc. |
| 2:00-3:00 | Legal Aspects of Construction Documents
Marketing Your Systems Capabilities
How to Do More in Less Time
Improving Specification Production
How to Shop for Interactive Graphics
Organizing for New Production Techniques
Training Staff to Use Systems | Paul Lurie, Fohrman, Lurie, Sklar & Cottle
Carol McConochie, Management Consultant
Herbert Hoyles, Hoyles Associates
William Lohmann, Murphy/Jahn
G. Anthony DesRosier, Honeywell
Steven Gatschet, GBQC
Lee Emberly, Ellerbe |
| 2:30-3:00 | Communications and MIS | AT&T |
| 4:00-5:00 | Minimizing Liability Claims
Managing the Marketing Program
How to Select a Word Processor
Planning and Organizing for CADD
Small Firm Production Techniques
Getting the Most Out of Overlay Drafting | David Lekamp, Professional Practice Associates
John Coyne, Coyne-Wilkinson & Associates
Dean Walker, Fujikawa Conterato Lohan
Timothy O'Connor, ACIST
Tom Saunders, Saunders-Thalden
Spencer George, Swanke Hayden Connell |

FRIDAY, June 11, 1982

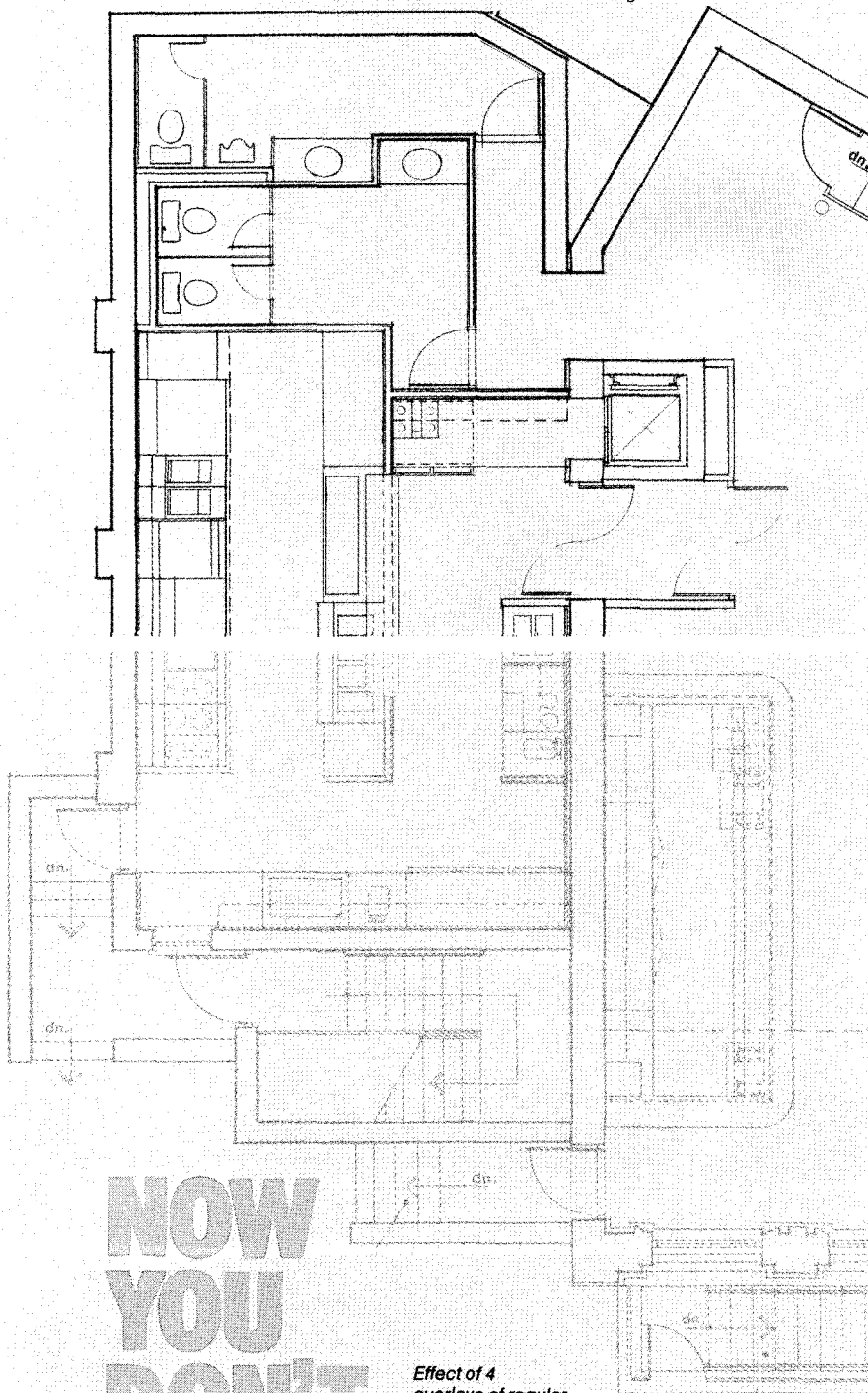
- | time: | topic: | speaker: |
|-------------|--|--|
| 9:00-10:00 | How to Manage Change
Buying a Small Computer
Planning and Organizing for CADD
Managing Reprographic Production | Weld Cox, The Cox Group
Kenton Johnson, ECAN
Timothy O'Connor, ACIST
Russell Molpus, John J. Harte Associates |
| 10:30-11:00 | How to Introduce Systems to Your Office | Michael Lengyel, Compubase, Inc. |
| 11:00-12:00 | Minimizing Liability Claims
Project Management and MIS
Managing the Marketing Program
Low-cost Applications for Small Computers
Engineering and Planning Applications for CADD
CADD: What it Can and Can't Do for A/E's
Setting Up a Standard Detail System | David Lakamp, Professional Practice Associates
David Burstein, Engineering Science
John Coyne, Coyne-Wilkinson & Associates
C. Page Highfill, Highfill-Smith Associates, Inc.
Harvey Liss, VL Systems
Gregory Bloom, CAE Technology Center
Edgar Powers, Jr., Gresham Smith & Partners |
| 12:00-12:30 | The Future of Reprographics | Eastman Kodak |
| 1:00-2:00 | How to Introduce Systems to Your Office | Michael Lengyel, Compubase, Inc. |
| 2:00-3:00 | How to Find Good People and Keep Them
Marketing Your Systems Capabilities
How to Do More in Less Time
How to Select a Word Processor
How to Shop for Interactive Graphics
Organizing for New Production Techniques | Charles McReynolds, C.M. McReynolds
Carol McConochie, Management Consultant
Herbert Hoyles, Hoyles Associates
Dean Walker, Fujikawa Conterato Lohan
G. Anthony DesRosier, Honeywell
Steven Gatschet, GBQC |

Exhibitors

Alpha Merics Corporation
Alpine Data Systems
AM Bruning
American Computers & Engineers, Inc.
Arkwright Incorporated
Arrigoni Computer Graphics
AT&T
Automated Graphic Systems
Autotrol Technology Corporation
Birnberg & Associates
Everett I. Brown Company
BST Consultants, Inc.
Calcomp, Inc.
Chemco Photoproducts Company
Clearprint Paper Company, Inc.
Compubase
Computervision
Concept Group, Inc.
Consul & Mutoh
CPT Corporation
Creative Dimensions
Data-Basics, Inc.
Design-Logic
Design-Mates, Inc.
DFI/Systems
Diagram Corporation
Dietzgen Corporation
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DuPont Company
D&W, Inc.
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Elden Enterprises
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Gresham Smith and Partners
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Planon Systems, Inc.
Repro Technology
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Information Systems Company
SysComp Corporation
Teledyne National Tracing
Teledyne Post
TRAC Systems
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Wang Laboratories, Inc.
Xerox Corporation
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and many more

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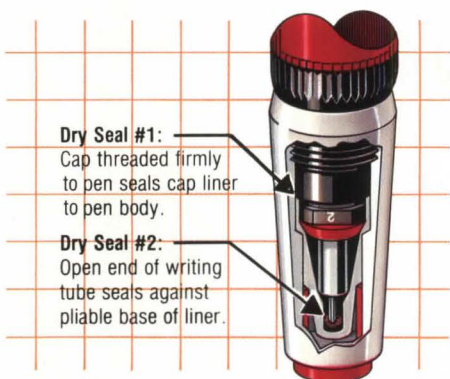
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A System to provide drafters with the capability of producing engineering drawings with optimum reproducible line values. The System is comprised of the Rapidograph® technical pen and Koh-I-Noor or Pelikan ink for use directly on Rapiddraw drafting film. Ink-line drawings on film are virtually indestructible!

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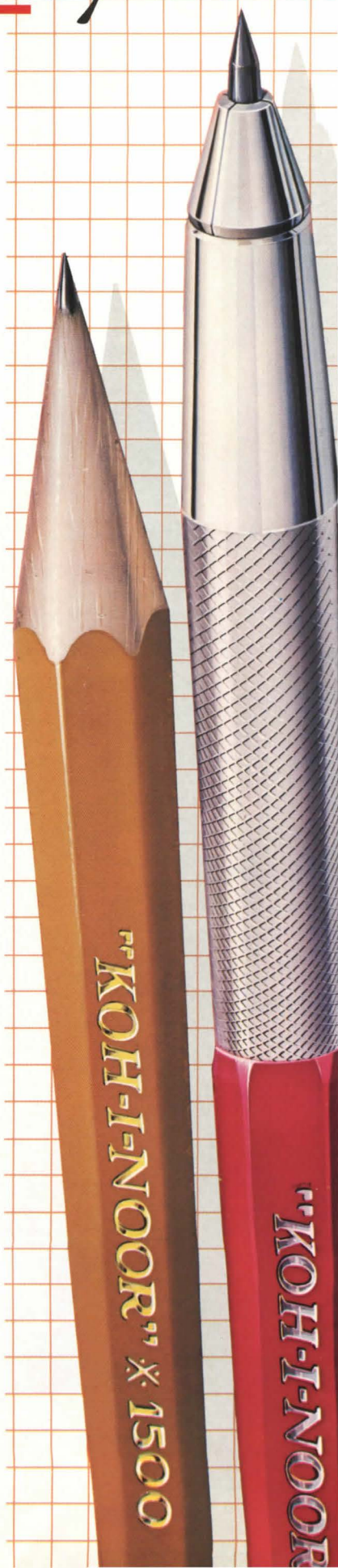
The Rapidograph pen was the first technical pen, and because of its precision dependability and performance, it is the most widely used technical pen in the United States and Canada. Contributing to the success of Rapidograph technology is the patented DRY DOUBLE-SEAL™ cap which seals the point tip and pen shoulder when the cap is secured, keeping ink throughout the balanced ink-flow system fluid and clogfree for instant startup and optimum drawing time. No maintenance-plagued gimmicks for sealing or humidifying. Stainless steel, jewel and tungsten carbide points in 13 line widths.

Rapidograph technology pioneered the development of the liquid-ink system for high-speed plotting associated with computer-aided drafting equipment.

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Koh-I-Noor offers the finest woodcased pencils and drawing leads in 17 uniform, precision-graded degrees. Other components of the Koh-I-Noor Graphite System include seven drawing-lead holders (with choices of features), pointers, sharpeners, and erasing materials.

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drafting technique



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Int'l Reprographic Assoc. — Booths 601/603
Systems '82 — Booths 211/213/215

Liquid-Ink Plotting System

To achieve optimum efficiency with liquid-ink plotting, this Koh-I-Noor System integrates proper rate of ink flow, ink viscosity, point material, and drafting media with the plotting speed required. Koh-I-Noor plotter points are available individually or with complete plotter pens, in stainless steel, jewel or tungsten carbide... each in 9 line widths. The System can be customized for your special plotting needs, including custom engineered pens, adaptors and bushings to eliminate costly modifications of your plotter.

Evolving from Rapidograph technology and Koh-I-Noor plotter inks is the Koh-I-Noor KAD II™, an electronically controlled liquid-ink lettering and symbol-generating system for use on the drawing board. The System offers a virtually limitless library of preprogrammed standard or custom lettering styles, symbols and designs for drawings and formats used in engineering, electronics, architecture, cartography or any other professional discipline. KAD II is already saving time and money, and helping to meet deadlines in the drafting and graphics departments of major corporations. Its advantages and cost justification have also placed KAD II in many smaller operations. For more information and a demonstration, contact Koh-I-Noor Customer Service for the KAD II dealers in your area.

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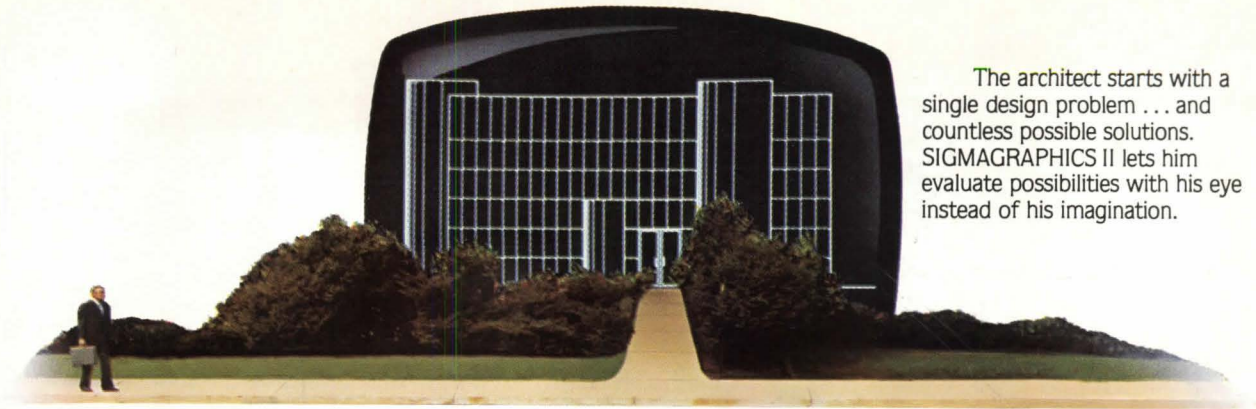
- ☐ Rapidograph pens, drawing inks — Catalog A.
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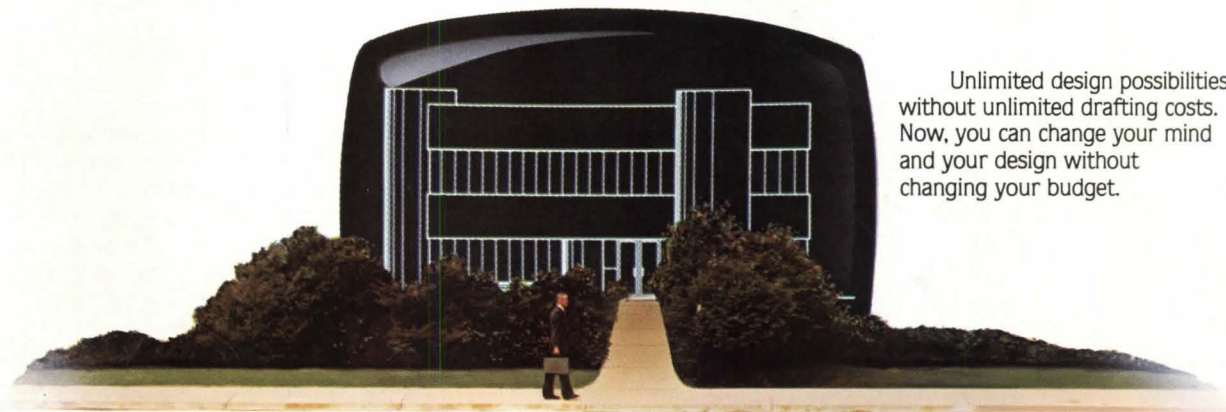
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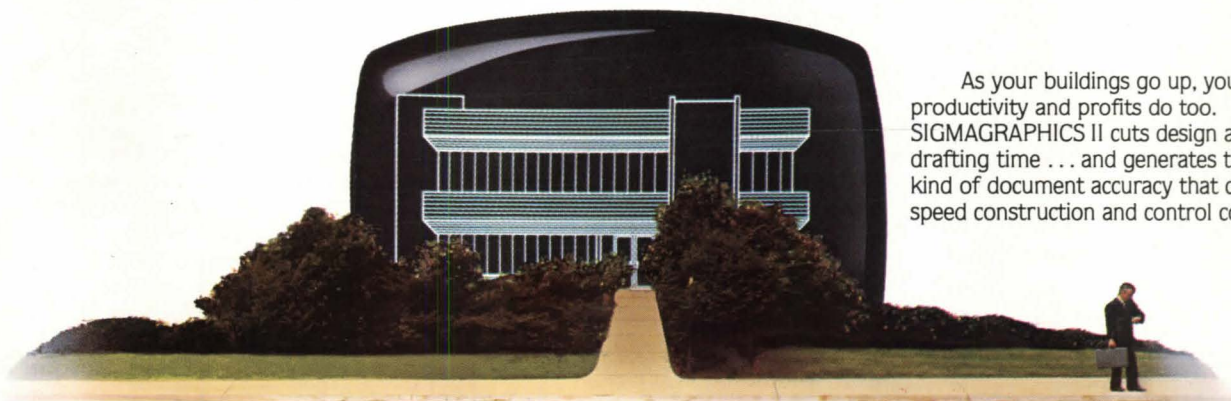
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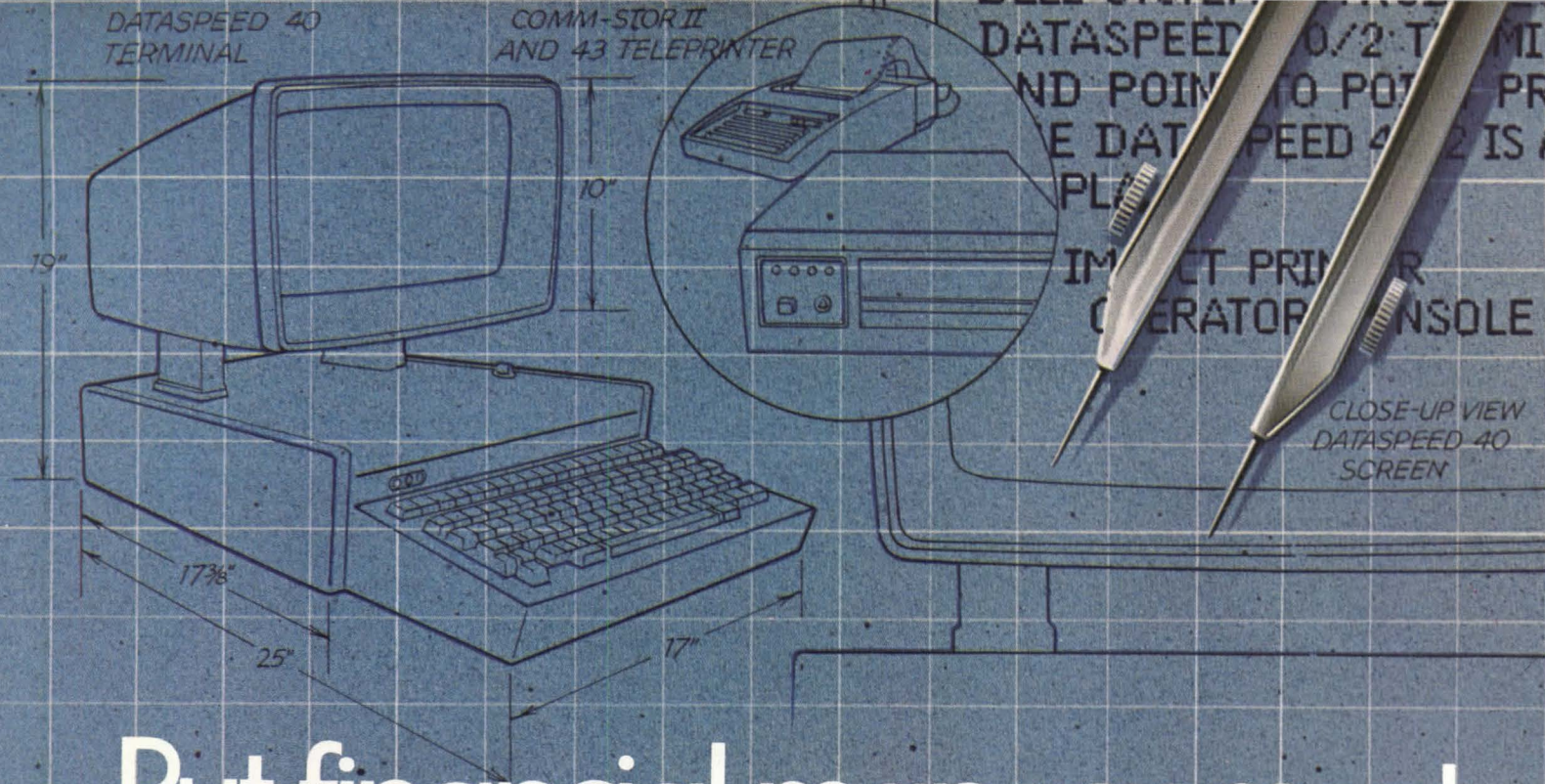
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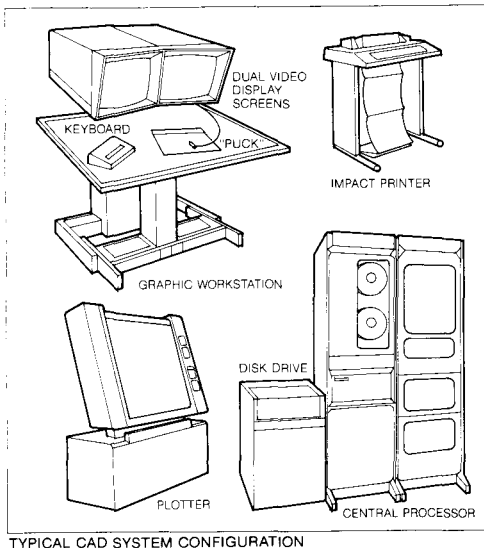
The knowledge business


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T square of tomorrow

Frank A. Stasiowski

As costs plummet, competition promises to motivate even the smallest firms to computerize. A noted authority outlines the advantages of computer-aided drafting and the procedure for the selection of your next mechanical draftsman.



A registered architect, Frank Stasiowski is currently editor for the Professional Services Management Journal (PSMJ), the newsletter of management of design firms, and publisher of Design Compudata, the only computer directory exclusively devoted to computer systems for architects, engineers, and planners. He is also facilities director of the annual SYSTEMS conference, the only exhibit dedicated to production and computer systems exclusively for the design professions. Stasiowski also conducts annual seminars nationally on Project Management, Financial Management, Marketing, Negotiating, and Minicomputer Usage.

Information pertaining to the literature and conference mentioned in this article can be obtained from the author at the following address: Design Compudata, 45 Van Brunt Ave., Dedham, Ma 02026.

Many small architectural firms that are waiting to buy their first computer believe that any form of computer is beyond their means today. There are a few very small firms (less than 10 total staff), who are proving that computers are well within the reach of every architecture firm regardless of size.

Current computer use in design practice generally can be broken into four distinct major applications: 1 Computer-Aided Drafting (CAD); 2 Word Processing; 3 Accounting; and 4 Engineering. For a firm to justify the lease or purchase of a system in any area, a payback of the investment must come quickly. It is for this reason that the most common use of data processing today is the application of word processors to specifications. Not only is it easy to use most word processors, but as small an investment as \$5000 today can do what \$30-40,000 did five years ago (P/A, July 1980, pp. 98-103). Even though word processing is the most widely used form of computerization today, watch for CAD to assume the leadership role within five years for the same reason that word processing leads today: improved productivity and lower priced systems.

What is CAD?

Computer-aided drafting (CAD) is really nothing more than fast overlay drafting assisted by computer software and hardware. CAD software is the internal computer together with the data files containing a library of various graphic symbols and notes to be used on drawings. Think of this library as a set of electronically stored standard details that can be recalled instantly by the computer.

Typical computer hardware for a single-station CAD system includes a video screen similar to a television, a typewriter-like keyboard, an electronically sensitized drafting board, a "puck" on the drafting board with which the operator or drafter "draws" or assembles a drawing, a central processing unit, which contains the computer memory, a

printer or plotter, and a computer storage medium such as a hard disk or floppy disk drive.

Computers don't yet design, although some allow you to modify design alternatives so quickly that they really do come close. CAD in today's design office is still a production tool used to assist architectural designers by speeding the laborious process of working drawing production once a schematic design has been established. The most important aspect of a CAD system is that it does not forget a shape once it is drawn, meaning that henceforth, no matter what you draw, you will never have to draw it again. Because of this trait, many architects believe that CAD can only be used for applications where design modules are repeated, such as high-rise office buildings or hotels. In the case of normal overlay drafting techniques, this is somewhat true because of the difficulty encountered when handling sheets of film, and because of the photographic process required to change the scale of any shape already drawn. With CAD it is not true.

Within the computer, the process becomes simple. Any four lines connected at their end points can form any rectangular shape of any scale and dimension by simply inserting the required scale on a keyboard before printing the shape. In simple terms, the photography and paper handling required in overlay drafting are replaced with electronic overlays assembled internally in the computer at high speed at any scale prior to printing. The smallest symbol can be combined with the largest element of a drawing with little difficulty.

Because CAD is a computer process of overlaying elements of a drawing, we have seen that those firms who are proficient at normal overlay drafting have much greater success with CAD. In fact, according to George Borkovich, editor of *A/E Systems Report*, "Although some users (and vendors) downplay the importance of procedural standardization and familiarity with overlay and cut-and-paste drafting techniques, it is clear that firms which precede computerization with a reprographics internship increase their computer success rate dramatically."

How much will productivity improve

When attempting to justify a new CAD system, many vendors quote productivity improvements in working drawing production of anywhere from 2 to 1 all the way up to 10 to 1. The difficulty with all of these figures is that no one has ever really measured them because no one does a complete set of drawings manually and then goes back to redraw the set with a computer or vice versa. For this reason, we suggest that you assume that the best a CAD system will do is provide one-to-one productivity in your firm and that the productivity will improve every year as you add more symbols and shapes to your internal library, because you will have to draw manually less and less new material.

According to David Wolfberg, president of the architectural firm of Wolfberg/Alvarez/Taracido, Miami, FL, who has two different CAD systems, "We never looked at productivity as the only reason to buy our systems. We just know that without CAD systems our productivity is continually getting worse; we look to the real improvement in productivity in a few years when we will have considerable CAD experience plus a large symbol library at a time when other firms haven't yet begun."

Since productivity improvement directly impacts the payback of your system, you will ask how long it should take to pay back an investment in CAD of \$50,000 to \$500,000. According to former Ellerbe Architects CAD director, Anthony DesRosier, "You should seek total payback for a CAD system in no more than 24 months through client reimbursement or productivity improvement." Speaking at the University of Wisconsin last fall, DesRosier noted that "today's design professionals who are exposed to what they can really do on a system become bored very quickly and become impatient to get their hands on new enhancements being developed every day. Without a program of hardware and software enhancement every two years, your key employees may leave just to work on new equipment," he said.

Automate or die

With frightening statements like one-to-one productivity improvements and 24-month paybacks, why should you as a five-person firm even think about a new CAD system? The answer is simple. Within the next ten years every architectural firm will be forced to experience CAD because of client demand in one form or another. Already the federal government has begun to ask for

CAD capability in many of its RFPs to design firms, while many private sector industrial clients see CAD as another way to reduce design fees. Whatever the initial reason, the result is the same: firms with computer capability will survive and those without it will die. In a recent sales projection made by Systems '82 producers, Michael R. Hough, George Borkovich, and the author, it is stated that design firms will purchase over \$237 million worth of computer hardware equipment in the next two years alone. Of that figure they project that \$25 million will be spent on CAD, and that close to 100 systems will be bought in 1982 alone. To reinforce these figures, it should be noted that in a recent development, IBM has restructured its typewriter division, merging it with its word processing division largely based on the projection that in three years no one will buy typewriters or stand-alone word processors. Everyone will buy multipurpose microcomputer terminals with WP capability, which communicate easily to both internal and external computer equipment at the under \$2000 price of today's typewriters.

How to start at CAD

The first rule when considering entry into computerization is not to wait. Start today by making a decision to get a word processor, small computer, or CAD system before year end. Next, follow this ten-step procedure to assure that your choice is appropriate for your size and type of application:

1 Don't procrastinate: Waiting six months won't gain anything for you. In fact, your firm loses every day by waiting because your staff falls further behind with regard to learning how to work in a CAD environment. If you get the urge to wait, we suggest that you instead lower your sights and choose a smaller system. Acquire it if for no other reason than to begin educating your staff and building your library of graphic symbols. Of the 214 design firm attendees at the first design firm computer users' exchange titled "Breakthroughs in Design Firm Automation" in Houston in March, sponsored by Design Computata, 60 percent said that they would buy a new CAD system before the end of 1982. One firm noted that they were simply going to buy a \$30,000 system to play with just to begin to learn what to do with it, and that their only justification for it was to use it as a marketing tool to attract more clients.

Many firms also believe that by waiting, a benefit will be gained by the acqui-

sition of new enhancements now on the research drawing boards. Regardless of when you purchase your system, you will certainly be able to say that you could have gotten more "bells and whistles" six months later. Thus by waiting you may wait forever. Start today!

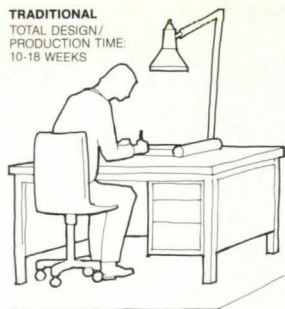
2 Get involved: Do it yourself or pick one person in your firm to be totally responsible for analysis, selection, and implementation of your system. Be certain that the person has enough authority to act swiftly at crucial decision points. Of the small design firms that are succeeding with CAD, one notable trait is appearing. The CEO is the person behind the impetus to computerize. For instance, at the six-person firm of Evans & Evans in Shreveport, La, John Evans is the head of all CAD operations for their \$100,000 HP-1000 turnkey graphics systems, while Antonin Aeck heads up computer operations for Aeck & Associates, Atlanta, a 24-person architectural firm with over \$400,000 worth of Intergraphic drafting system.

Another benefit of being involved yourself is that your staff will not have to spend numerous hours trying to justify all minute details of every decision to you. By having the CEO involved, the staff also works harder to make the system succeed once it is installed. Because of the newness of computers in architectural practice, significant resistance must be overcome.

3 Collect some resource material and read it: Specifically, examine newsletters and other publications written just for design professionals.

We recommend that when you start investigating computers you look primarily at resources specifically applicable to design firms. Doing otherwise will certainly cost you time, and more important, could cost you significant amounts of money in lost efficiency, or software modification if you choose a system based on material you have read outside our field. A key phrase to remember as you begin to collect information is that "software is policy." Whatever a computer program or system does is based on policies established by whoever wrote the program. Since many "canned" off-the-shelf programs are written by nonarchitects for nonarchitectural firms, you may end up with policies you just cannot live with.

One good source of what is available is another design professional who operates just like you. To contact firms already using CAD systems, we recommend that you obtain the *Design Computata Computer Users Directory* which lists over 2200 design firms with computers, and breaks down each listing into hardware manufacturer, application type, contact person, firm size and type, and whether or not the firm will swap programs.



STEP 1 DESIGNER SKETCHES ON TRACING PAPER.
2-4 WEEKS



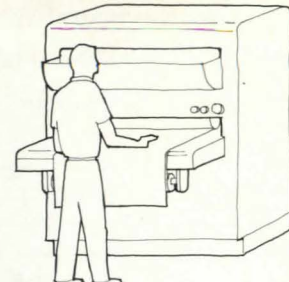
STEP 2 DRAFTSMAN LAYS OUT INITIAL WORKING DRAWING SHEETS AND PASSES MYLAR COPIES OF SHEETS TO CONSULTANTS FOR THEIR WORK.
1-2 WEEKS



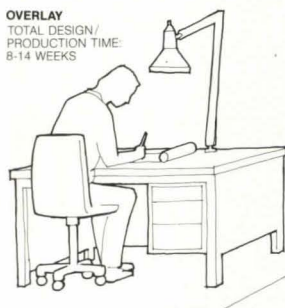
STEP 3 DESIGNER AND DRAFTSMAN COORDINATE CONSULTANTS' DRAWINGS AND REDRAW STRUCTURAL AND MECHANICAL ELEMENTS ONTO ORIGINALS.
2-4 WEEKS



STEP 4 DESIGN CHANGES CAUSE 20 PER CENT ERASING AND REDRAWING OF ORIGINALS PLUS FURTHER CONSULTANT COORDINATION.
2-3 WEEKS



STEP 5 FINAL DOCUMENTS ARE PRINTED WITH BLUEPRINT PROCESS.
3-5 DAYS



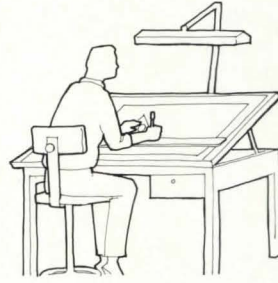
STEP 1 DESIGNER SKETCHES ON TRACING PAPER.
2-4 WEEKS



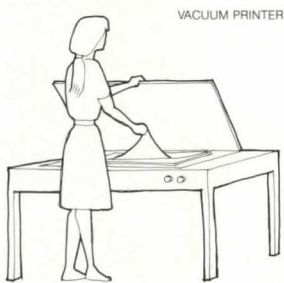
STEP 2 DESIGNER AND DRAFTSMAN PREPARE MINISSET OF DRAWINGS WHICH DESIGNATES THE NUMBER AND TYPE OF OVERLAYS NEEDED FOR EACH SHEET.
2-5 DAYS



STEP 3 DRAFTSMAN ASSEMBLES ALREADY PRODUCED TYPICAL DETAILS FROM A PHOTOGRAPHIC LIBRARY AND PREPARES AN INITIAL WORKING SET OF CLEAR TRANSPARENT OVERLAYS WHICH INDICATES THAT WHICH MUST BE DRAWN AND THAT WHICH IS ALREADY AVAILABLE.
2-5 DAYS



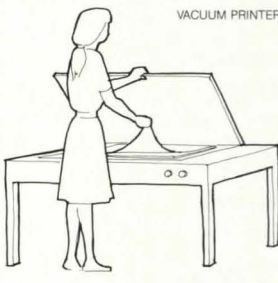
STEP 4 NEW MATERIAL IS INITIALLY DRAWN ONTO MYLAR WITH INK.
2-4 WEEKS



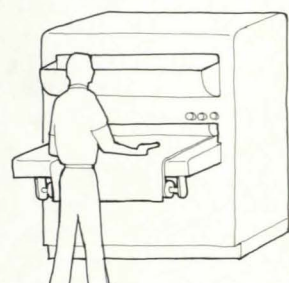
STEP 5 LAYERED OVERLAYS ARE ASSEMBLED TO CREATE A PRINT OF EACH SHEET OR LAYER ON MYLAR TO BE GIVEN TO CONSULTANTS/MECHANICAL ETC.
2-5 DAYS



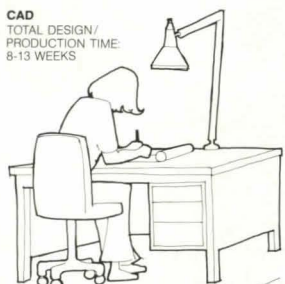
STEP 6 UPON RECEIPT OF DRAWING DESIGN CHANGES, DRAFTSMAN MAKES CORRECTIONS ON CLEAR FILM OVERLAYS IN INK.
3-5 WEEKS



STEP 7 DRAFTSMAN ASSEMBLES ALL CLEAR OVERLAYS TO PRINT A FINAL MYLAR FOR EACH SHEET REQUIRED. LIMIT IS GENERALLY 5-6 LAYERS FOR A CLEAR PRINT.
3-5 DAYS



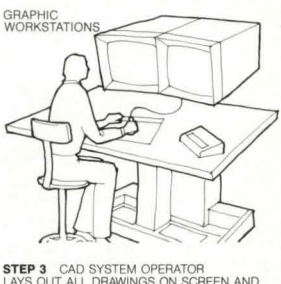
STEP 8 FINAL DOCUMENTS ARE PRINTED WITH BLUEPRINT PROCESS.
3-5 DAYS



STEP 1 DESIGNER SKETCHES ON TRACING PAPER.
2-4 WEEKS



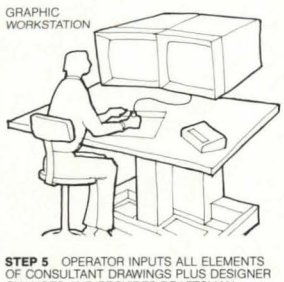
STEP 2 DESIGNER AND DRAFTSMAN DIMENSION ALL SKETCHES AND DECIDE ON NUMBER OF LAYERS REQUIRED FOR EACH DRAWING SHEET WITHIN THE DOCUMENTS. UP TO 500 LAYERS PER DRAWING.
1 WEEK



STEP 3 CAD SYSTEM OPERATOR LAYS OUT ALL DRAWINGS ON SCREEN AND ASSEMBLES ALL ALREADY DRAWN SYMBOLS TO PRODUCE A WORKING DRAWING QUALITY MYLAR PRINT OF INITIAL DESIGN CONCEPTS FOR DESIGNER CHANGES AND CONSULTANT USE.
1-2 WEEKS



STEP 4 DESIGNER CHANGES ARE MADE ON TRACING PAPER AND GIVEN DIRECTLY TO THE CAD OPERATOR WITH SHEET IDENTIFICATION.
2 WEEKS



STEP 5 OPERATOR INPUTS ALL ELEMENTS OF CONSULTANT DRAWINGS PLUS DESIGNER CHANGES AND PROVIDES DRAFTSMAN WITH LISTING OF ALL LAYERS AND WHAT IS CONTAINED ON THEM. ALL NEW SYMBOLS OR DETAILS ARE ADDED TO THE SOFTWARE LIBRARY NEVER TO BE REDRAWN AGAIN.
2-3 WEEKS



STEP 6 PLOTTER PRODUCES ANY LAYER OR COMBINATION OF LAYERS IN FINAL WORKING DRAWING QUALITY ON DEMAND.
3-5 DAYS



STEP 7 DRAFTSMAN ADDS MINOR DETAILS OR SINGLE USE NOTES TO MYLAR ORIGINALS PRIOR TO PRINTING.
2-5 DAYS



STEP 8 FINAL DOCUMENTS ARE PRINTED WITH TRADITIONAL BLUEPRINT PROCESS.
3-5 DAYS

SIMPLIFIED COMPARISON OF TRADITIONAL VS OVERLAY VS CAD DRAWING PRODUCTION STEPS FOR A 3 STORY 12000 BRICK OFFICE BUILDING ASSUMING NORMAL NUMBER OF DESIGN CHANGES.

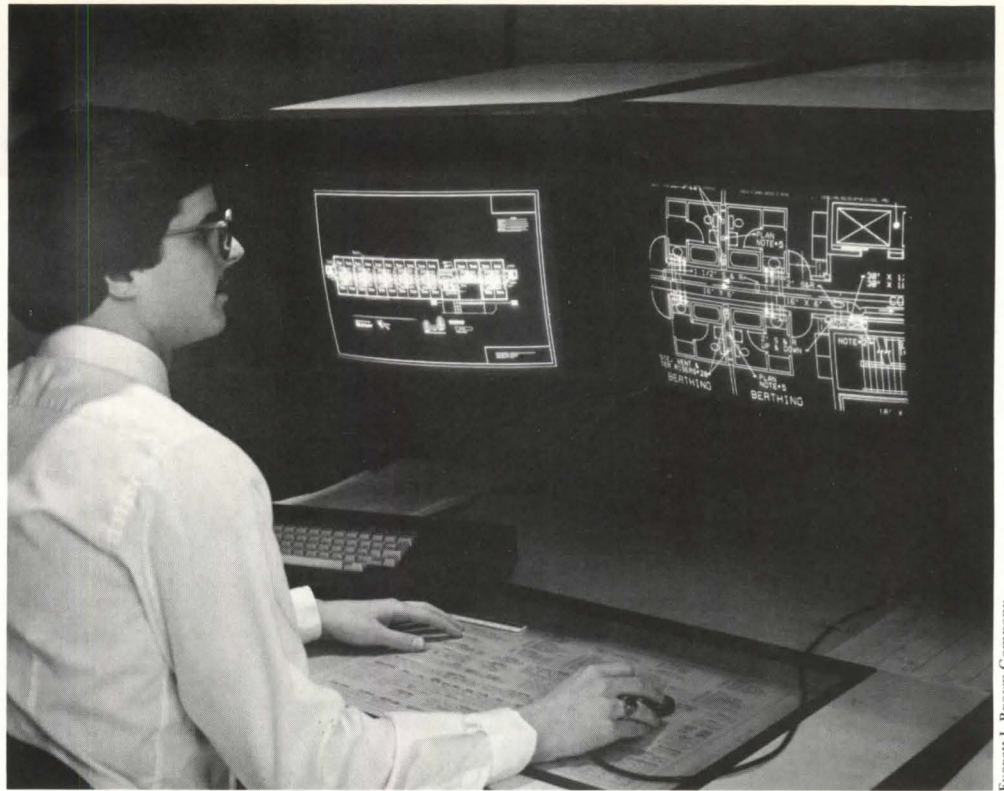
4 Learn to use overlay drafting: Use it in your firm even if you don't gain immediate efficiency. Since the process of CAD is overlay, it is important that your staff learn how to assemble drawings using overlay concepts. "You must know the essence of reprodrafting before getting into CAD," says John Evans of Evans & Evans. Evans had been using reprodrafting for three to four years with his own in-house camera prior to acquisition of their HP-1000 system. "Today fully 80 percent of all projects are on the system," he says, "and the transition was simple because the computer is the electronic way of doing overlay drafting."

Start to develop forms and procedures which tabulate and document what graphic symbols are found on each overlay in a set of drawings. Begin by examining each standard detail in your drawing library to take it apart by layers. Typically they include: a layer for all dimensioning, a layer for all notes, and a layer for each different physical component such as wood vs metal vs brick. On a typical floor plan, a minimum of six layers should include floor, ceiling, structural, mechanical, electrical, and plumbing plans.

"Thinking of drawings in layers becomes vital to CAD success especially if you consider that one set of drawings that we developed had 1144 layers," said Tony DesRosier of Ellerbe. "Each layer must be thought of and managed."

5 Document your existing procedure for producing a set of drawings: To do so, take out a typical set of prints and physically count the number of times the smallest elements are repeated within the set. Next, identify which symbols are used in every set of drawings produced by your firm over a one-year period. Also, if you can, count the number of revisions made on each sheet and the total number for a typical set.

For a yardstick consider that a system designed by Newport Beach, Ca, architect Richard Doo contains approximately 350 different architectural graphic symbols, which can be combined in an almost unlimited manner. Doo's symbol library and software are now offered as a service bureau or for sale under the name of Arcomp Systems. He operates on a Summagraphics CAD system comprising a Data General minicomputer, keyboard, screen, digitized drawing board, and output plotter. Cost of the hardware and software ranges between \$80,000 and \$120,000 depending on the exact configuration. In general, fewer symbols to store mean



Drawing elements are being transferred (above) from a drawing to a CRT screen and then into computer memory.

less expense, more symbols more expense. But since systems vary widely, the only way to be certain of the appropriate size system is to count your repeat elements and to ask several vendors.

6 Determine what you can spend: Remembering that a system should be paid off within 24 months, set a budget into three parts: one-third for hardware, one-third for software, and one-third for the cost of the time of your staff to evaluate and implement your system. Make certain before you shop that your financing is in order and that your budget is well within your means.

Knowing what you can afford to spend is probably the most difficult step in CAD selection. To estimate your amount, consider three elements of payback in your firm: 1 Automatic payback, 2 Cost reduction, 3 Direct reimbursement. Automatic paybacks are those given to you by the tax laws simply for buying a system. Investment tax credit and income tax savings are the most predominant of the automatic reimbursements. Cost reduction includes time and expense expected to be saved after your system is fully implemented compared to current operations. Direct reimbursement is any hourly fee you expect to be paid directly by clients for use of your system on their project. A rule of thumb in today's marketplace is to expect to amortize your two-year purchase price with 20-25 percent from automatic paybacks, 20-25 percent from productivity improvements, and 50-60 percent from direct client reimbursement.

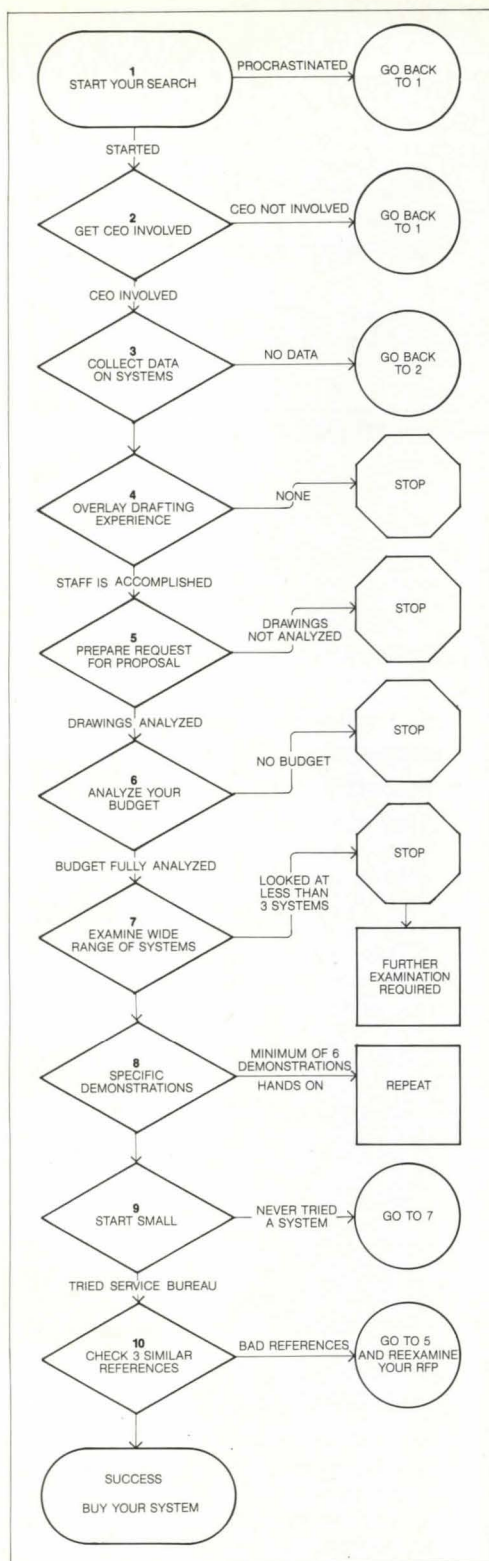
7 Shop around: Before you finally decide, examine the entire range of CAD systems available in today's marketplace. There are three levels of CAD, which currently serve architects, characterized by the size of systems in each level:

A Microcomputer CAD Systems (\$10-30,000)

B Minicomputer CAD Systems (\$30-125,000)

C Mainframe Systems (\$125,000 up)

In general, both micro- and minicomputer CAD systems are single-terminal, single-user systems, while mainframe systems generally offer multi-station capability. According to C. Page Highfill of Highfill/Smith Associates in Richmond, Va, a five-person architectural firm, "Most architects today do not realize the potential power of micro CAD systems such as Radio Shack's TRS-80 Model II." Highfill's firm has five TRS-80s and all architectural personnel work directly on terminals. Another micro-based system on Apple hardware is produced by Cascade Graphics of Santa Ana, Ca, costing less than \$10,000 for the initial configuration, making it the least expensive CAD system in the marketplace. Firms who are using micro systems tell us that for \$20-30,000 in total, they are computerizing standard details and many other reusable aspects of drawings. Although small systems can store only a limited number of symbols on each diskette, meaning that production time is less than one-half that of systems in



the \$70,000 range, they do provide quality reproduction and tremendous educational benefit to first-time users.

In the minicomputer range of systems, many have been designed by architects for architects. Besides Richard Doo's Arcomp Systems, other minicomputer-based systems designed by design professionals include Arrigoni's Touch and Draw System in California, Everett I. Brown's System in Indiana, and Duane Koenig's Continental Systems also in California. Minicomputer systems generally cost between \$60,000 and \$150,000 depending on hardware configuration.

For large systems, examine those found already in large architectural firms. The best comparison that we know for large systems can be given by David Wolfberg since he owns two of the largest systems. In his firm are both Intergraph and Auto-trol systems, and as an architect, Wolfberg is in a position to comment on the advantages and disadvantages of each. Interestingly, his initial reason for buying a second system was simply to get a project with the U.S. Corps of Engineers, who required that the firm chosen for a particular project own an Intergraph CAD System and use it on the job. Clients demand CAD and get it from the competition.

8 Watch one work: Find out how CAD systems work by getting several demonstrations. Before you go to your first demo, however, decide that you will see at least six demos before making a decision. Otherwise you may be so impressed with your first look (or your first salesman) that you look no further. Also, consider attending a computer seminar or trade show which is specifically aimed at our design industry. For instance next month in Chicago (June 10-11 at Expocenter) SYSTEMS '82 will feature over 200 exhibit booths and 40 seminars on computer and production equipment exclusively for design firms. Over 5000 fellow design professionals are expected to attend, offering you the added benefit of being able to discuss proposed systems with your colleagues.

9 Start small: The easiest way to learn the advantages and disadvantages of CAD is to begin by using a CAD service bureau for a small project such as a 10,000-sq-ft office building. Several advantages cited by George Borkovich which service bureaus offer include:

You can test CAD with a low capital outlay (generally \$50-75/hr).

You can gradually learn the capabilities of CAD by selectively processing portions of projects until confidence and understanding are gained.

You can experiment with several different systems and compare capabilities and features of each before you commit to a single vendor to bring your own system in-house.

You can use CAD when you desire, and stop using it (and paying for it) when you don't desire.

Today there are close to 20 CAD service bureaus operating nationwide allowing ample opportunity to try before you buy. You can also use the existing detail and symbol library of most service bureaus, thus eliminating the laborious task of inputting all of your symbolism. Then for unique parts of your design,

simply draw those elements onto Mylar sheets partially completed already by the computer.

10 Talk to other firms: Visit a minimum of three firms already using the specific system you seem to like most. To find out who owns which system, examine either ACEC's *Directory of Computer Users*, which lists 537 firms, or *Design Compudata*, which lists over 2000 design firms, with systems of all sizes and configurations.

When visiting each firm, investigate in detail how a set of drawings is assembled. Compare each firm, procedure by procedure, to your way of doing things. Remember that few people tell you about the bad references. Therefore, your only true evaluation of any system is to compare how your firm operates versus another. If all three firms operate almost identically with your firm, then ask several specific questions about the system, including how long it took from day of delivery to first day of operation on a real project and what major obstacles had to be overcome.

Finally

Now that you have read how to start your trip into the world of CAD, consider the following four points:

1 Within five years, your competition will be experienced with a system and will be able to cut fees and still produce for clients just like yours.

2 Today there are firms with less than ten people who own and are being reimbursed for systems costing well over \$100,000.

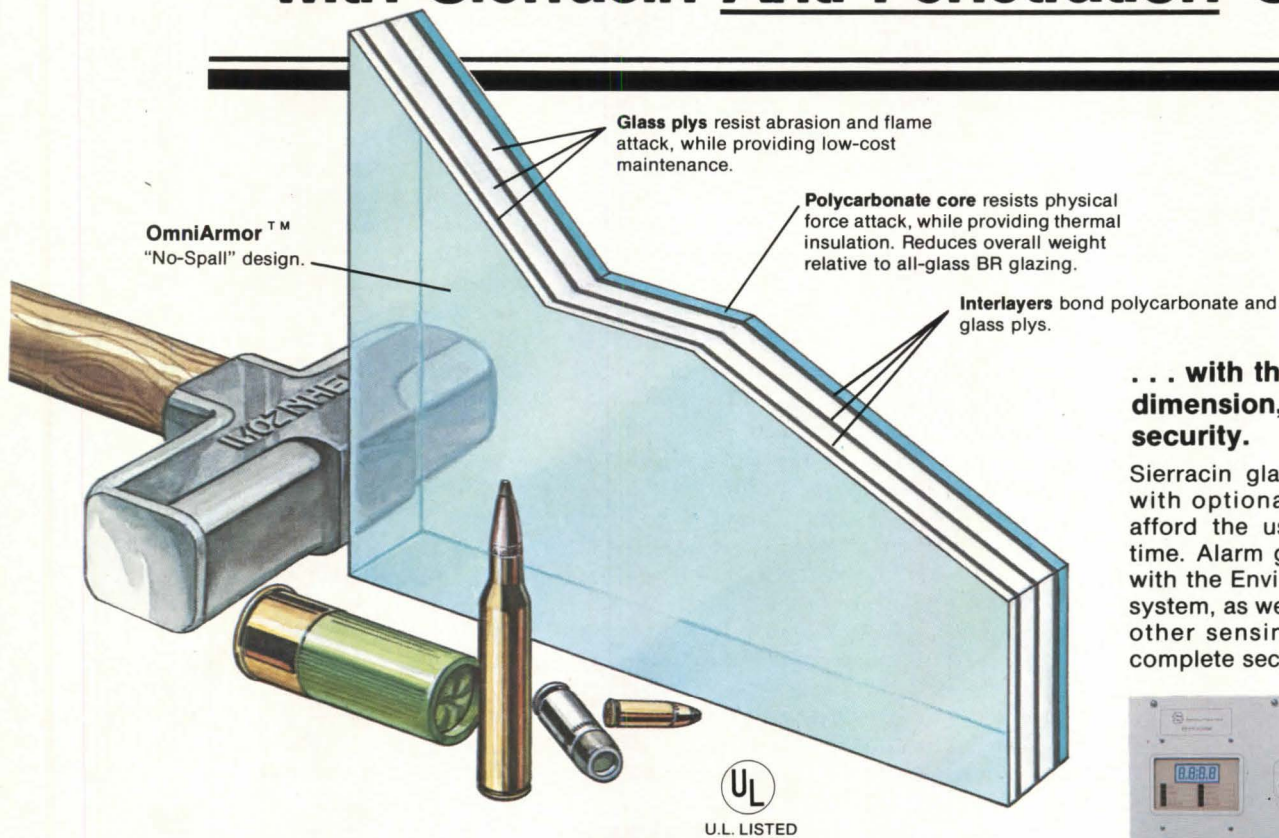
3 Six months ago is ancient history in the world of computers. This means that what you knew in November 1981 is now out-of-date. If you don't believe this, consider that more than 25 computer companies will announce new products in this month alone, and that every day new software is being written to solve problems just like yours.

4 Software is policy. Remember that software is the most important part of your system. *Don't* begin your search by calling a hardware vendor. In fact, resist every attempt to talk about hardware at all until you have thoroughly examined every piece of software capable of solving your problem. Choose your software, then find out what hardware it runs on.

Finally, don't feel lonely. You are one of the 90 percent of all architects who have not yet begun the search for a system. You have many peers with whom to discuss your circumstances. Talk freely with them and you will quickly learn that this entire CAD movement may be the best thing to happen to design in the last two centuries. It will allow designers to design more in less time and will leave tedious drawing of final documents to machines instead of humans. □

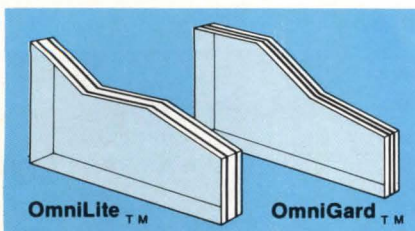
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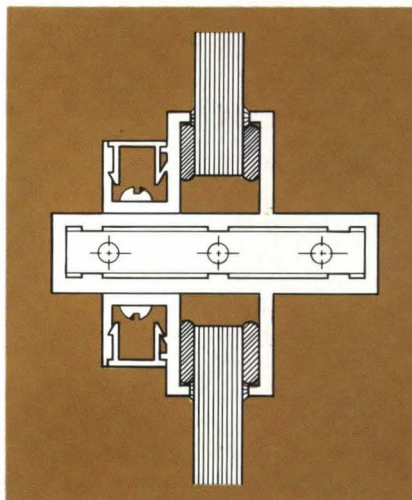


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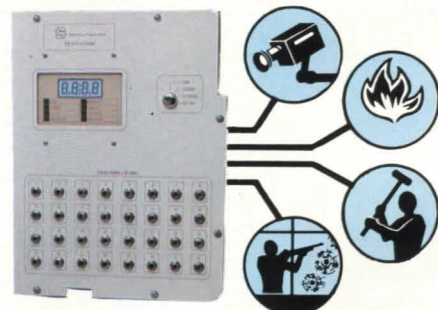
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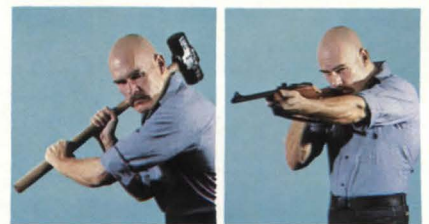
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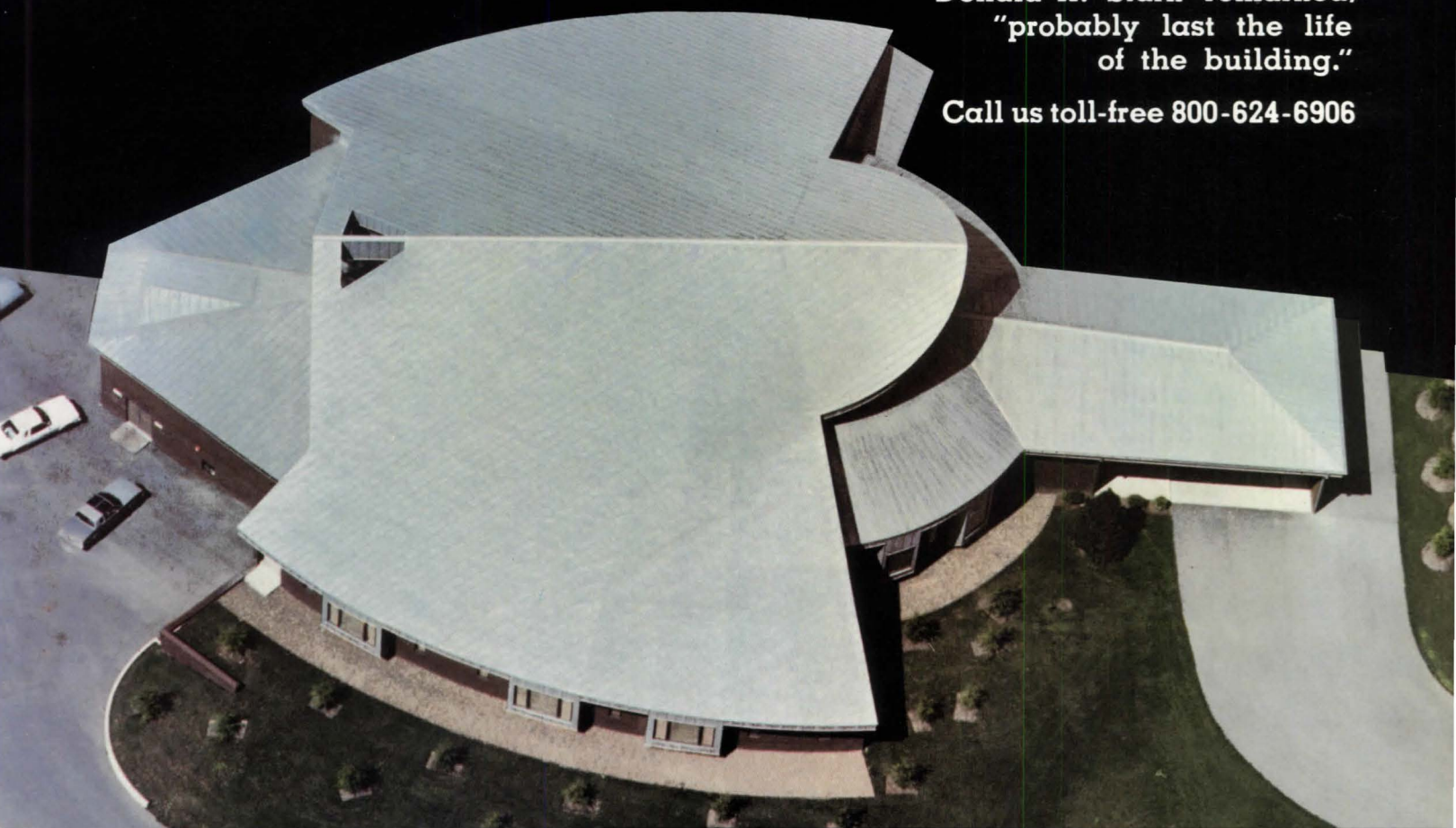
Fourth Dimension in Design

Functional durability, however intangible in initial specifications, is nonetheless a normal design criteria employed by most architects in the selection of a building material. TCS, terne-coated stainless steel, in a very unique way promises this durability—one that can be measured in generations rather than years.

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Architect: Donald H. Stark Architects, Beckley, WV
Roofer: Harris Brothers Roofing, Charleston, WV
General Contractor: Radford and Farley, Beckley, WV



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Panel discussion

Open-office system panels can be the foundation for an acoustically sound electronically flexible systems layout.

"Would you step into my workstation for a moment?" is hardly an invitation that evokes images of mahogany-paneled inner sancta with panoramic views. But the open office, with its labyrinth of workstations and antihierarchical aura, was developed to address the problems of economics, communications, and workflow that had long plagued the conventional office. While its success is still a hotly contested issue, its acceptance is not. In the years since John Pile pondered the future of the open-plan office in this magazine (P/A, June 1977), it has become clear that the open office, for better or worse, is here to stay. With open-office furniture systems shipments of \$4.3 billion projected for 1982 by The Business and Institutional Furniture Manufacturer's Association (BIFMA), it is difficult to argue otherwise. But the concept of the open office as developed in Germany by the Quickborner Team—that of a truly *open* layout with a minimal amount of private space—has not gained widespread acceptance in this country; most employees above the clerical level still seem to crave the privacy and status implied by the conventional enclosed office. The result is that most open-plan offices are something of a compromise between the *Bürolandschaft* model and the conventional office.

When one systems manufacturer said, "The only difference between conventional and open offices is that now, instead of walls, we have panels," he may have oversimplified the issue, but his point is well taken. It serves to under-

score the importance of panels in any open-office design. Given the dizzying variety of systems now on the market (this discussion will focus primarily on those with panels and panel-hung storage and work surface components) and granted that a system is rarely specified solely on the merits of its panels, the system panel is nonetheless crucial. It incorporates two essential aspects of open office design—acoustical control and wiring—apart from its basic functions of insuring visual privacy and articulating the office layout.

Making a list, checking it twice

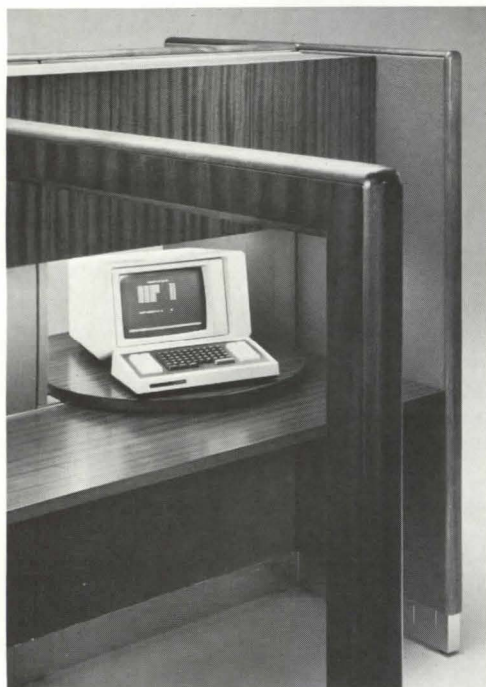
Specifying office systems is a complicated business. There are dozens of manufacturers of panel-hung component systems alone, and because different manufacturers' systems are not interchangeable, the choice can and should seem final. Shirley C. Reznikoff, author of *Specifications for Commercial Interiors*, asks: "Have you ever heard of a used office system?" It is important, therefore, to compare systems panels on a variety of points.

The variety of panel heights and widths offered is a key consideration. While most manufacturers now make panels that range in height from 30 in. (for clerical workstations) to 80 in. (for managerial, executive, or other office areas where a high degree of visual or acoustical privacy is desired), some manufacturers also offer full-height panels and optional doors, for creating conference rooms within open-office areas. Other options include curved or glazed panels, and a few manufacturers are offering panels that accommodate the sharing of computer equipment between two workstations. The range of panel widths is not nearly so great, but it does vary from one system to another. Commenting on the importance of flexibility of panel dimensions, Margo Grant, managing principal of Gensler & Associates' New York office, maintains that "no open-plan office should be a sea of constant panel heights."

Materials flexibility is important as well, for both functional and acoustical reasons. A basic question is whether a panel system can be adapted to more than one surfacing material. The struc-



Litton Business Furniture



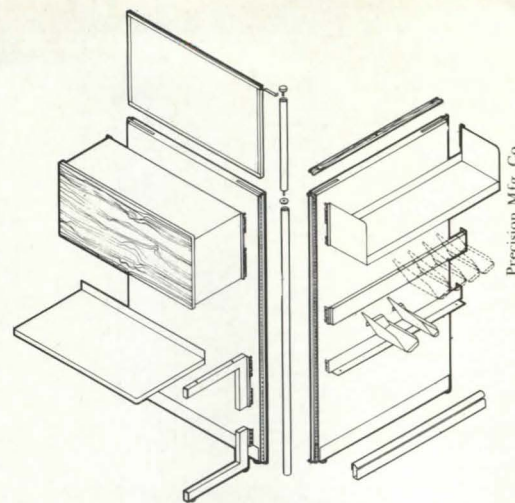
JG Furniture

A typical workstation (facing page) with panels and panel-hung components. Some systems offer full-height panels and even optional doors (this page, top) for total-privacy conference rooms. Some systems have pass-through panels (above) for sharing of computer terminals. Panels' structural systems vary widely, from a post-and-panel assembly (top right), to an integrated post system (center right), to a less typical post-and-beam system (lower right), with work surface and storage components suspended along a central beam (incorporating a wire raceway) or universal post, with panels for visual/acoustical screening placed only at eye/voice level.

ture and composition of a panel system is another factor to consider. Panels may have metal or wood frames, with or without exposed or integrated support posts. Connector systems vary widely, so it is important to know how quickly panels can be disassembled or reconfigured. How durable are the connectors? Can they be reused? Some panels have integral slotted rails along their face edges for hanging storage and worksurface components; in one system, the mounting of components involves making holes in the panel fabric covering—an irreversible proposition. Almost every manufacturer seems to have a different structural system for panels, but the composition of the panel material itself is fairly standard. Non-acoustical panels can be made of hardboard or honeycomb cores sandwiched between layers of laminate, wood veneer, or metal. Acoustical panels often have a hardboard septum (sound barrier), with layers of fiberglass or other sound-absorbing material on either side, under a layer of acoustically transparent fabric. Tackable panels may also have a second layer of fiberglass just underneath the fabric covering.

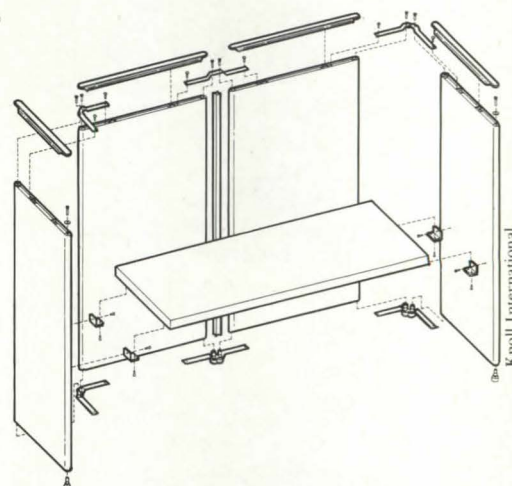
Stability is another important item on the performance checklist (for a table listing performance attributes, see next page). Margo Grant cautions designers to "visit prior installations of systems that they are considering"; it never hurts to kick the tires, in addition to examining figures on impact resistance, stability, and fabric durability. If angled panel connections are needed, what are the limitations on angled connectors? What tools are necessary for making connections? What is the average assembly time for a typical workstation? Are the panel feet height-adjustable? Are there light or sound leaks between panels?

Flammability data are almost always



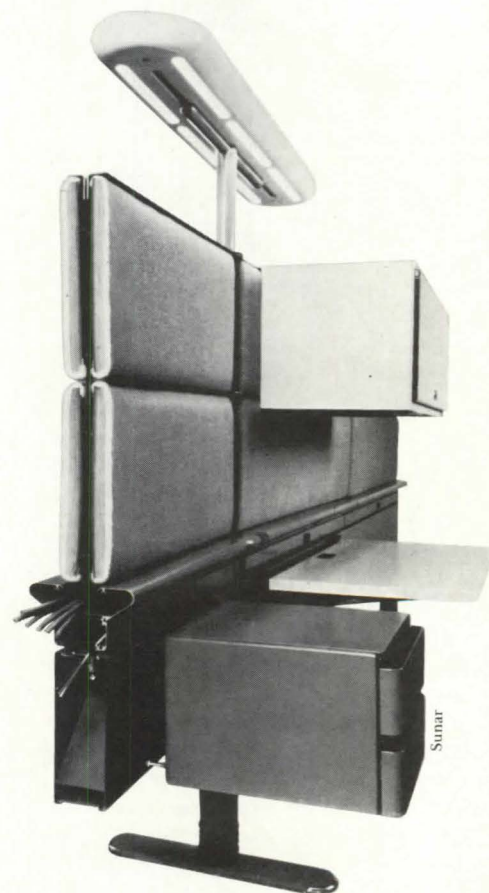
Precision Mfg. Co.

POST-AND-PANEL ASSEMBLY WITH EXPOSED POSTS



Knoll International

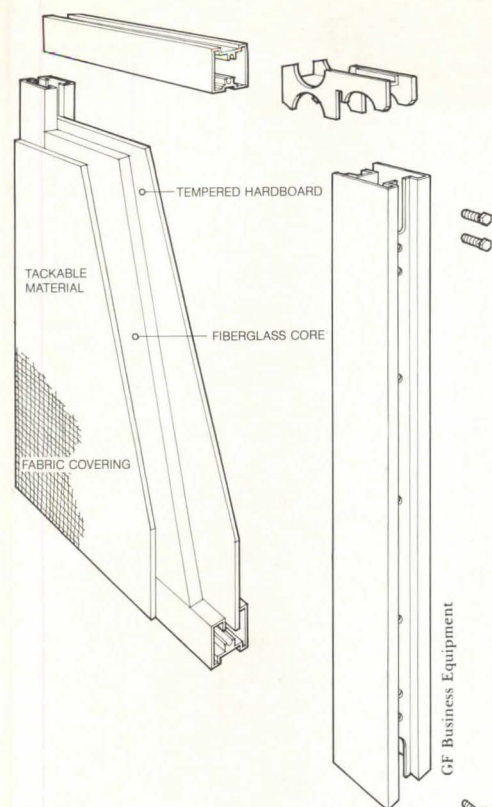
PANEL ASSEMBLY WITH CONCEALED POSTS



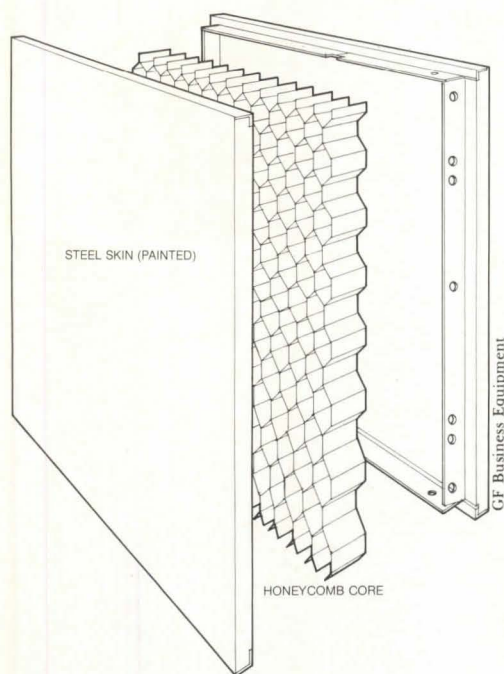
Sunar

POST AND BEAM SYSTEM ASSEMBLY

Open-office partition systems



FABRIC COVERED PANEL



METAL PANEL

A panel's composition depends on whether it is used for acoustical control or not. In an acoustical panel (top left), a hardboard center septum serves as a sound barrier, while layers of fiberglass act as sound absorbers. Whether or not an acoustical panel has tackable material under its surface, it is always covered with an acoustically transparent fabric.

PERFORMANCE ATTRIBUTES OF OPEN OFFICE PANELS

ATTRIBUTE	TESTS	MINIMAL FEDERAL PERFORMANCE REQUIREMENTS
FLAMMABILITY		
FLAME SPREAD	ASTM E-84	FLAME SPREAD \leq 25 UNSPRINKLERED FLAME SPREAD \leq 200 SPRINKLERED
SMOKE	NBS 708	SPECIFIC OPTICAL DENSITY \leq 150
POTENTIAL HEAT	BASED ON ASTM PROCEEDINGS VOL. 61, 1961, PP. 1337-47	\leq 40,000 BTU
ACOUSTICS		
AIRBORNE SOUND	PBS-C.1 (SUBJECTIVE) PBS-C.2 (OBJECTIVE TEST)	SPP \leq 60 IN OPEN PLAN AREAS SPP \leq 70 IN ROOMS WITHOUT DOORS NIC + (NC \leq 40) \leq 60 IN OPEN PLAN
IMPACT SOUND	FOOTFALL TEST IB1-1 1-1965	MASK VERTICAL FOOTFALL SOUNDS W/NC \leq 40
STABILITY		
RESIST HORIZONTAL LOAD	ASTM 72-74	RESIST LOAD OF 50 LB SUPPORT 40 LB PER LINEAR FT OF SHELVING
RESIST TIPPING		
RESIST IMPACT	ASTM 72-74	RESIST 30-LB IMPACT. HORIZONTAL FORCE OF 100 LB APPLIED 5" ABOVE FLOOR
DURABILITY		
ABRASION	ASTM E 72-74	RESIST ABRASION
COLORFASTNESS	FADEOMETER	NO COLOR CHANGE AFTER 50 HOURS AT 150°F
CHEMICAL RESISTANCE	FTM 141 A, METHOD 6081	RESIST STAINING AND DAMAGE

SOURCE: Specifications for Commercial Interiors, by S.C. Reznikoff, New York, WHITNEY LIBRARY OF DESIGN, 1979.

given in manufacturers' literature when fabric-covered panels are part of the system. The standard flammability test is the ASTM E-84, in which a building material or interior finish material is tested in a tunnel for flame spread, fuel contribution, and smoke density. Materials are flame-spread rated on a scale of 0 (does not burn) to 100 (burns moderately); classifications are A(0-25), B(26-75), and C(76-200). While the test is required in most states, it tests only the fabric, not the entire panel. To determine the fire performance of the entire panel in a fire, designers should seek specific information on the test methods used.

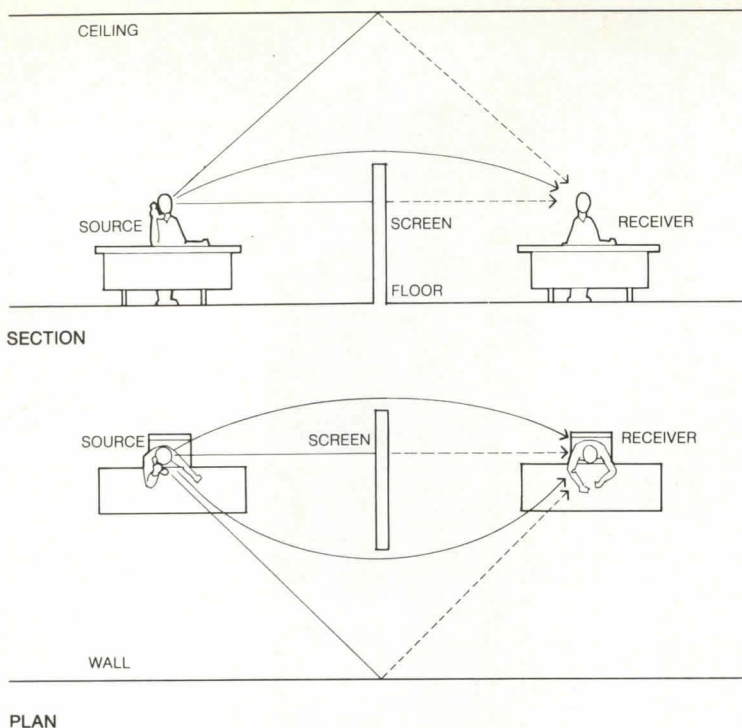
Acoustics

One of the biggest problems facing open-office workers these days is the lack of proper acoustical controls. Inadequate speech privacy and excessive background noise constitute the collective bane of the worker's existence. The problem is not a new one—conventional offices have struggled with it for ages—but with open plans, it is aggravated by the proliferation of exposed surfaces. Consequently, systems manufacturers now consider acoustical panels to be an indispensable part of the open office landscape, but a designer can be confused by the profusion of acoustical-rating figures listed by various manufacturers. Acoustical panels—whether freestanding or component—are a crucial part of the sound-control picture in any open office, but they are *only* a part, *not* the whole package. Just because a panel receives a high acoustical rating does not insure a quiet office. Designers should

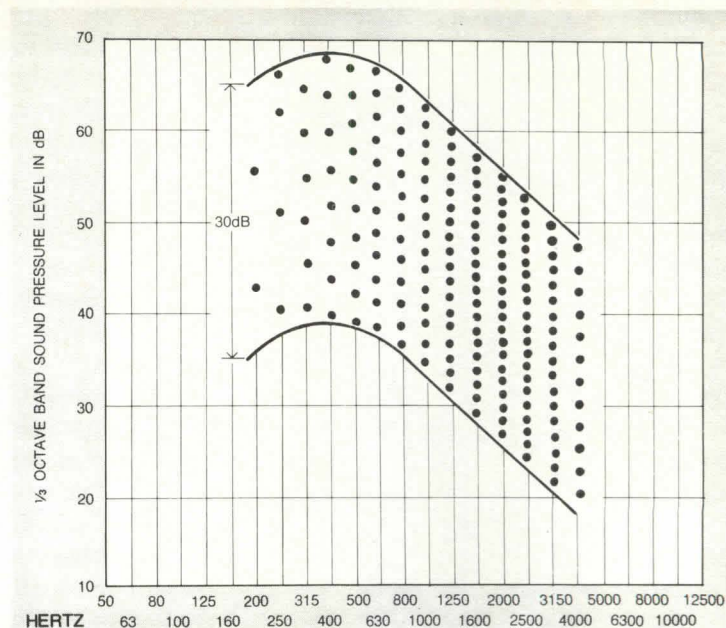
know as much as possible about acoustics in general, and about acoustical panels' role in creating a comfortable working atmosphere *before* specifying a system, or for that matter, before arriving at a final office design.

In manufacturers' literature on panels, the most frequently quoted acoustical performance figures are those of the Sound Transmission Class (STC) and the Noise Reduction Coefficient (NRC). Both are based on ASTM-sponsored tests and are usually published together, for good reason. The STC measures the ability of a barrier to stop sound from passing through it. A panel with an STC of 24 will stop 24 decibels of sound from passing through. The NRC, on the other hand, is a measure of how much sound a panel *absorbs*. It is derived from an average of sound absorption readings at four different frequencies: 250, 500, 1000 and 2000 hertz (Hz), or cycles per second. A panel with an NRC of .50 absorbs 50 percent of the sound striking its surface; one with an NRC of .85 (a commonly quoted high-performance figure) absorbs 85 percent.

These two tests, however, are conducted under conditions that do not take into account two major office acoustics problems—background noise and reflected sound. Theoretically, it is possible for a material to have an NRC of 1.0. Realistically, however, that is impossible in an office setting. According to Jack Curtis, director of architectural technologies at Bolt Beranek & Newman, Inc., "An NRC of 1.0 is possible only at an open window; it's the only place where sound just keeps on going." That is to say, even the most absorbent



Bolt Beranek & Newman, Inc.



Armstrong Cork

NORMAL SPEECH LEVELS SHOWING CONTRIBUTION OF FREQUENCY BANDS TO SPEECH ARTICULATION INDEX



American Seating

The acoustics of the open-plan office, while based on predictable physical laws, often pose severe problems in design and layout. As illustrated by the diagram (top left), sound—the human voice—takes many paths and is reflected off ceilings, walls, and windows, as well as bending over and around office system panels, thus creating a need for proper acoustical treatment of all interior surfaces—not just panels. A graph (top right) illustrates the intelligibility of speech (represented by the higher density of dots), even at higher speech frequencies (above 2000Hz), that can be among the most annoying office sounds. After lowering general speech levels with good acoustical planning, sound-masking systems can often screen out high-frequency noise. The proliferation of electronic office equipment creates further noise problems; it may help to isolate a machine in its own booth (lower left).

surface reflects some amount of sound. Furthermore, some sound will always diffract (bend) over the top and around the sides of a panel and will reflect off surrounding surfaces, such as windows, ceilings, doors, etc. As illustrated by the diagram (above), the sound of the human voice does not simply travel in a straight line, but in several directions at once. For that reason, Curtis adds, STC ratings above 25 are unimportant to a panel less than seven or eight feet high.

Furthermore, NRC and STC ratings fail to test materials at the higher sound frequencies (such as the 4000 Hz range), which are components of intelligible, and therefore potentially annoying, speech. (Low frequency sounds, on the other hand, tend to be unintelligible and can act as natural sound masking).

It is important to know if the entire panel was tested, or just the acoustically absorbent surface. William C. Anderson, design manager of product and space planning at Westinghouse ASD, notes that ASTM testing procedures were altered in 1979 to include the entire panel; the inclusion of wood and metal frames, which are highly reflective, would necessarily lower the final figures. Manufacturers are not required to publish testing dates in their literature; if you want to know, you have to ask. But it is also important to remember that the numbers are relative. Systems furniture is only as effective as the setting in which it is placed. So while it is important to specify panels with good acoustical properties when necessary, it is equally important to design an acoustically efficient space. Jack Curtis emphasizes, "Acoustical design is predictable; you don't have to guess. A combination of correct decisions is required for acoustical privacy in an office, and a well-designed open office will probably

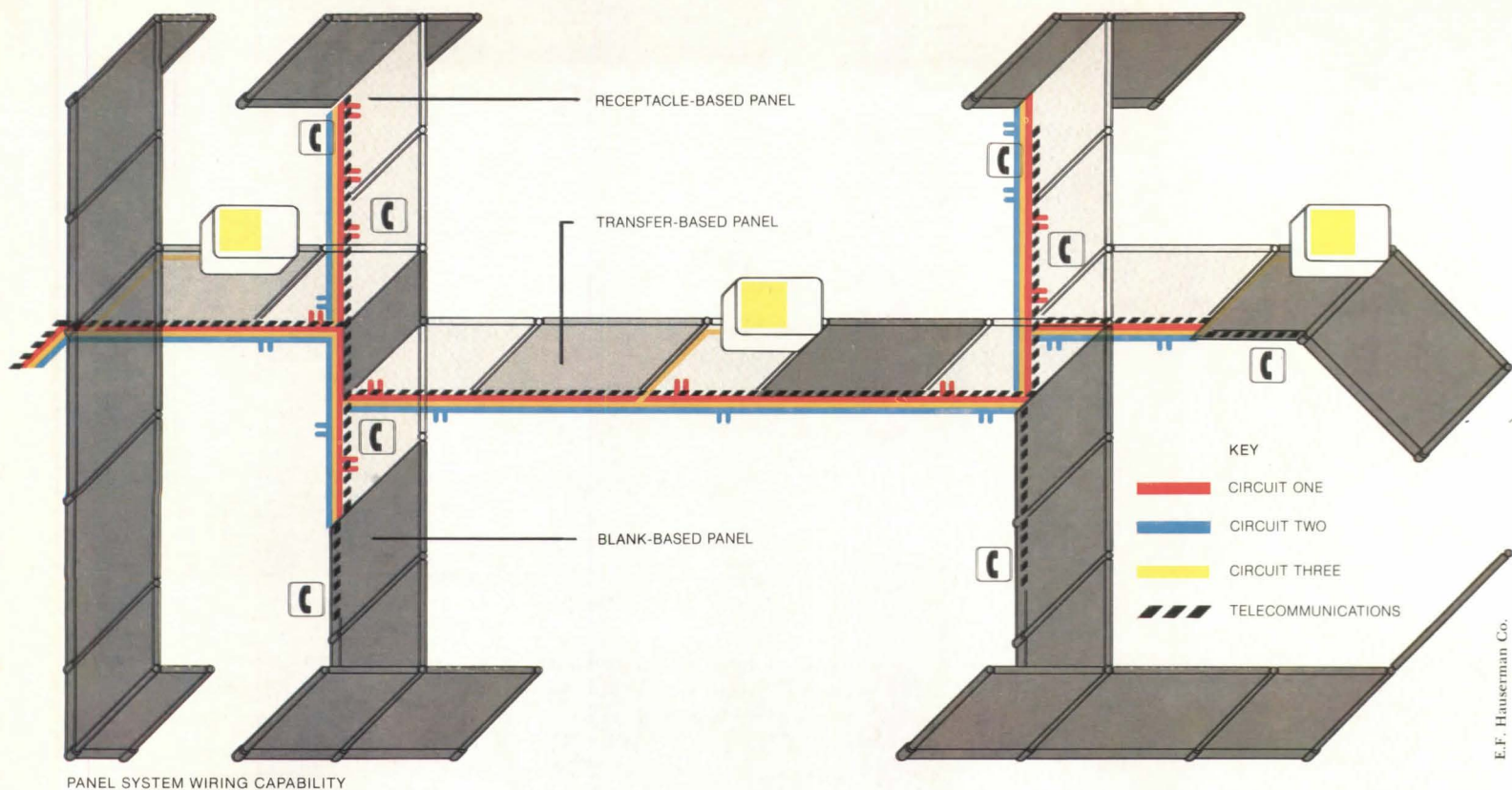
have better acoustical privacy than the average conventional office." (For an analysis of office acoustics, see P/A, September 1979.)

Curtis cites three keys to an acoustically comfortable office. First, the layout and type of systems furniture must contribute to speech privacy and acceptable noise levels; putting a workstation next to a window wall, for example, is asking for trouble. Second, the level of background noise often determines the level of speech in an office. If the level is too high, people will raise their voices to be heard above it. If it is too low, higher frequency sounds will seem unbearably loud. Paradoxically, simply covering every available surface with an absorbent material may result in an office that gives the feeling, as one observer put it, "of being in a marshmallow." Sound-masking systems are often valuable in maintaining comfortable background noise levels. Third, it is important that ceilings, walls, and floors (in order of importance) contribute to acoustical control. (For a discussion of ceiling systems, see P/A, September 1980.) But Curtis emphasizes that each of these components is of little value unless used in conjunction with the other two.

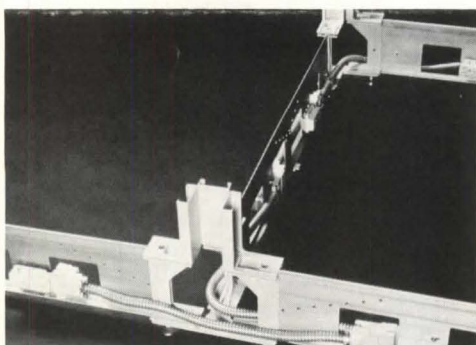
Two other tests, PBS C.1 and PBS C.2, employed by the GSA, were developed specifically to deal with open-office acoustics. They evaluate the Speech Privacy Potential (SPP) between any two zones in a typical office area. PBS C.1 is known as a subjective test because it relies on a jury of listeners for its results. PBS C.2 uses a device to create a specific level of background noise (called the Noise Criterion, or NC) whose upper limit is 40 decibels (dB), against which sound reduction is rated by a Noise Isolation Class (NIC).

A third method of evaluating acousti-

Open-office partition systems

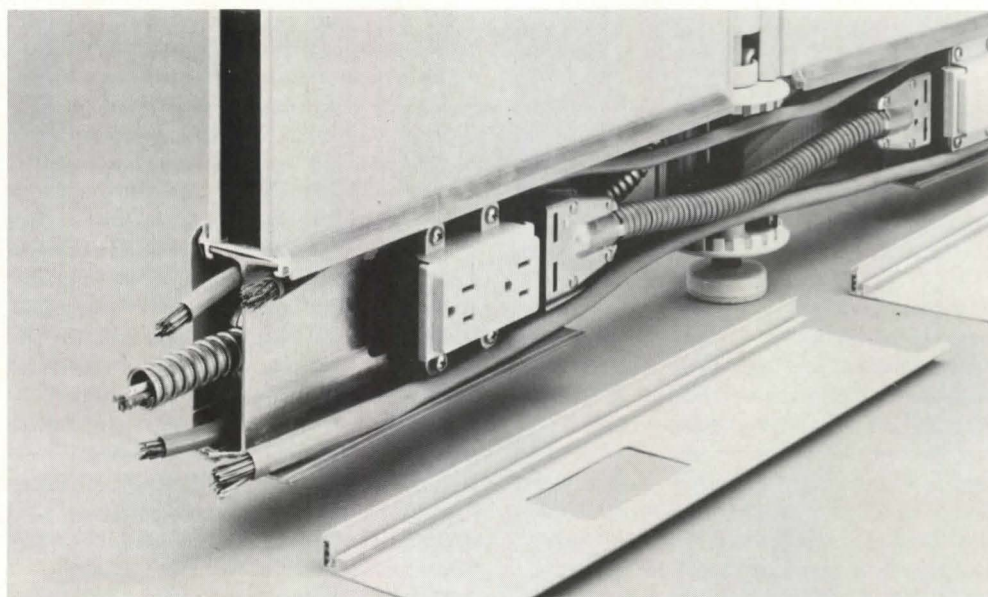


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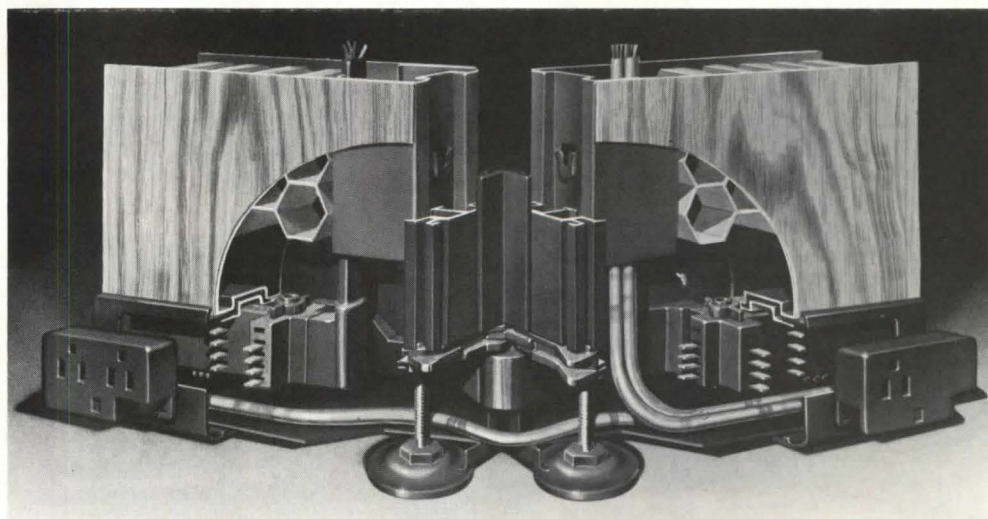


Panel Concepts

Wiring capability is an important feature of many panel systems. A raceway (this page, lower left), accommodating electrical and communications wiring, is installed prior to panel assembly. A prewired panel base (center right) can be retrofitted to unwired panels, has panel-to-panel connectors and integral duplex outlets, and hooks up to the building's power grid; different wiring types are housed in separate channels. Prewired panels are also available (lower right), and are simply connected together before hooking up to the power grid. A diagram (top) illustrates a panel system with three-circuit capability; one circuit is dedicated to telecommunications wiring. Some panels may have built-in desk height outlets (facing page, far left); some systems have power poles to route wiring from ceiling power feeds (center); others route wiring through panels from floor feeds (far right).



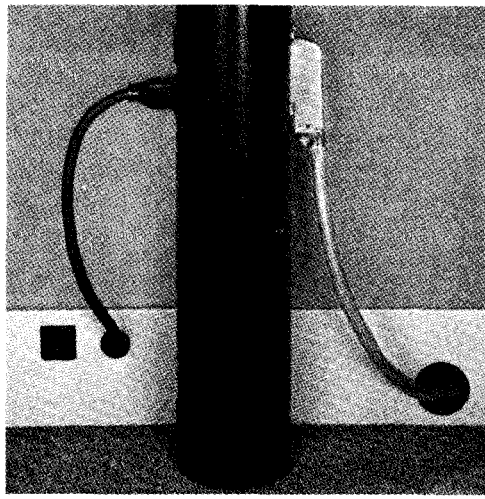
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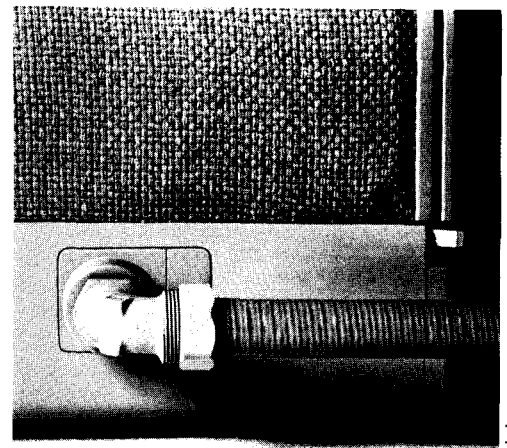
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cal performance is the Articulation Index (AI) developed by Bell Laboratories to indicate relative levels of speech intelligibility. This is derived by comparing the level of the intruding speech signal (voice) to the level of background noise at the listener's position. An AI of 0 means zero intelligibility; an AI of 1.0 represents total (100 percent) intelligibility. The average for normal speech privacy is .20. One advantage of this method is that it uses an average of sound-level differences weighted toward the higher frequencies.

Regardless of the testing procedures used or the acoustical ratings listed for a panel, a little common sense goes a long way. The performance of even the highest rated panel is considerably altered the minute someone hangs a storage component on it or tacks a piece of paper to it. And if you've blocked the sound-absorbent surfaces near the source of your voice with reflective materials, all that fabric and fiberglass at your knees won't do a bit of good.

Wiring: an electrifying issue

Just as important these days as acoustical control is the subject of wiring. Now that we are well into the age of the automated office, the prospect of being strangled by the mass of wires and cables needed to power the office of the future means that the ability of a panel to incorporate wiring capability has become a major selling point for systems manufacturers. For the present, wiring capability seems to fall into three categories. First, there is the panel with a simple raceway that accommodates electrical wires and communications cables. The second is the panel that can be equipped with an optional, manufacturer-supplied power pack that has panel-to-panel connectors, and hooks up to the building's electrical grid. The third is the prewired panel, which is already assembled and is then plugged into the electrical grid. The last is the most expensive option. However, the electrical hardware can be depreciated in the same manner as the office system itself, since it is part of the furniture.

If a simple raceway is specified, remember that it is assembled ahead of the panels themselves, and that it adds a few inches to the height of the panels. The designer should know how easily accessible the wires and cables are that it will hold. How durable are the various base plates and covers that conceal the wiring? Does the raceway have separate channels for electrical and communications wiring? Does the panel accept power feeds from the floor? Ceiling? Both? How accessible are these entries? Does the panel have optional convenience outlet strips?

When examining power-pack or prewired panels, the designer should know whether or not the wiring system can be retrofitted to nonelectrified panels in the system. Are there integrated convenience outlets at work surface height? Many of these panel systems accommodate two (and sometimes three) 20-amp circuits (one for electrical, one for telephone and low voltage communications cable, and CRTs); one of these circuits may be dedicated to a specific use. If the system has integrated ambient lighting, can the lighting circuit be switched off while the task lighting and convenience outlets remain live? Does the system have pass-through panels for workstations or areas that do not need electrified panels? How many duplex receptacles (outlets) are permitted on each circuit? The National Electrical Code limits outlets to 13 per circuit, but New York City codes, for example, allow only 10. Some manufacturers incorporate vertical raceways into their panels; others route wiring through channels concealed in the panel joints—check for accessibility here, too.

What kind of communications wiring can a panel system accommodate? A survey of several manufacturers turned up capabilities ranging from six 25-pair phone cables to 30, as well as amphenol connectors. It is important to take into account the electrical and communications needs, present and future, of a client, as well as the electrical layout and capabilities of the building, before seriously considering any one system.

The question of flat wiring (which is installed directly on the floor under easily accessible carpet tiles) has become increasingly important in the last few years, as it is starting to gain acceptance among both users and local authorities. It is not now used widely enough to gauge its potential effect on open-office systems, but its widespread use would effect great changes in systems panel design, so it is something to bear in mind.

The big picture

This discussion of open-office panels is necessarily general; the specifics depend on the actual conditions of a given office design. It would be safe to say, however, that the more a designer knows about panels and office systems in general, the better equipped he or she is to offer a client the best furnishings for any office. Even the most expensive state-of-the-art system is only as good as the planning, research, and common sense that go into the design of its layout and surroundings, and the designer's awareness of its advantages and disadvantages. It is all well and good to buy the right stuff, but the acid test is knowing when and where to use it. [Pilar Viladas]

Acknowledgments

We would like to thank the following organizations, manufacturers, and consultants for sharing their information with us: ASTM; All-Steel; Alma Desk; American Seating; Armstrong Cork; Atelier International; BIFMA; Bolt Beranek & Newman; Conwed; Corry Jamestown; Executive Office Concepts; GSA; GF Business Equipment; Gensler and Associates; Gunlocke; Harter Corp.; The E.F. Hauserman Co.; Haworth; Helikon; Hiebert; IKD Corporation; JG Furniture; Knoll International; Litton Business Furniture; Herman Miller Inc.; Panel Concepts; Precision Mfg. Inc.; Harvey Probbler; Shirley C. Reznikoff; Rose Johnson; Rosemount Office Systems, Inc.; Shaw-Walker; Steelcase; Stow-Davis; Sunar; Tibbet, Inc.; Vogel-Peterson; Westinghouse ASD; Whitney Library of Design.



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Registration will tentatively close on July 1, 1982. Assessment will be made during November 1982 and the competition results announced in December 1982.

Limitations on malpractice suits

Norman Coplan

The trend in malpractice suits against architects has been to extend liability. Although it is now on appeal, a recent case seems to be an exception.

There has been substantial litigation involving the issue of the time within which an architect may be sued for malpractice. Although most states have "statutes of limitations" defining the period within which suit must be instituted (or otherwise barred), the date when this specified period is to commence is often undefined and subject to judicial interpretation.

In some jurisdictions, the time commences when the error or omission claimed has been committed or the plans and specifications which are in error have been accepted. In other jurisdictions, such period commences from the date of the completion of construction. When the latter rule applies, a further question is raised as to what constitutes completion of construction. Thus, for example, in Wisconsin the question was presented in *County of Milwaukee v. Schmidt, Garden & Erikson*, 168 N.W. 2d 559, whether the time within which an architect could be sued was measured from the date the contractor completed its work or the date the architect issued a final certificate. The difference in these two dates was critical. The Court concluded that since the issuance of a certificate did not amount to an act of supervision or inspection and was merely an administrative act, the statute of limitations is measured from the date the construction work was completed.

This same issue was recently raised in New York in a case in which the owner, in a suit for damages instituted against various contractors and the architect, contended not only that the time within which suit for malpractice as against the architect could be instituted should be measured from the date the final certificate of payment was issued, but that such time should be measured from the discovery of the alleged defect rather than completion of construction (*Board of Education of Tri-Valley v. Solotex Corporation, et al.*, 443 N.Y.S. 2d 190). In this case, the architect was retained to provide architectural services with respect to the construction of an elementary school. Construction began in the summer of 1971, all construction was completed in April 1973, and the final payment to the architect was made in December 1973. However, a final certificate of payment indicating actual acceptance of the project was not prepared and issued by the architect until June 1976. In New York, a claim against an architect for breach of contract arising from his alleged malpractice must be commenced within six years from the date the cause of action accrues. Suit had been instituted in October 1980, more than six years after construction was completed and the architect had received final payment, but less than six years subsequent to the issuance of the final certificate.

The Court pointed out that in New York, it was now firmly established that the six-year statute of limitations applies to an action by an owner against an architect alleging profes-

sional malpractice, with said cause of action accruing at the completion of construction. In response to the plaintiff's argument that the project was not completed until the issuance of a final certificate for payment, the Court stated that such contention was not only contrary to the enunciated principle that completion of construction is the moment at which the cause of action accrues, but was inconsistent with such decisions as the Wisconsin case referred to above, which ruled that a certificate of payment is merely an administrative act and, therefore, not the date from which the statute of limitations for an architect's alleged malpractice begins to run. The Court said:

"In this court's view, the date of the certificate of payment is irrelevant to the accrual of the cause of action pled in this complaint since the action accrued at the completion of construction. Under the contract, the movant was to receive 100 percent of its fee upon completion of the construction phase. If any additional services were performed by the architects, additional payments would be made upon presentation of a monthly statement by the architect. There has been absolutely no allegation made that the movant received any additional compensation. Furthermore, it has been demonstrated through documentary evidence that the movant's fee was 100 percent satisfied by December of 1973 upon completion of the construction; and, additionally, it has been established that the surety released final payment in April, 1973. Therefore, the court finds that there is no basis upon which this court could hold that the 'continuing treatment' exception is applicable so as to toll the statute of limitations until 1976."

The plaintiff in this action also contended that the accrual of a cause of action should be measured as of the date when the defect is discovered rather than the completion of construction. To support this argument, the plaintiff urged that such a rule applied in medical malpractice cases and should therefore be applied to architectural malpractice. In rejecting this contention, the Court said: *"The plaintiff urges that the 'foreign object' exception enunciated in Flanagan v. Mt. Eden Gen. Hosp., which deems the accrual of the cause of action to be discovery of the wrong, should be made applicable to actions based upon claims of architectural malpractice. This type of exception has not been extended beyond medical malpractice cases, except through legislative action, and this court will not extend it on facts presented in this application."*

In view of the fact that the courts generally have extended the potential liability of architects in various decisions that relate to the statute of limitations, this Court's decision appears to be a welcome exception to that trend. This case is on appeal, however, and its ruling is, therefore, not final. □



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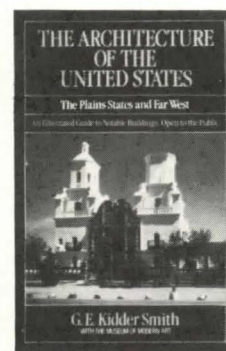
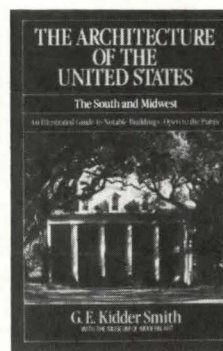
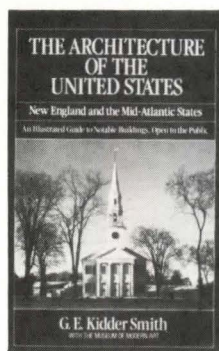
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Built America

Books



The Architecture of the United States: Vol. 1 New England and the Mid-Atlantic States, 755 pp.; Vol. 2 The South and Midwest, 749 pp.; Vol. 3 The Plains States and Far West, 817 pp.; by G.E. Kidder Smith (in association with the Museum of Modern Art). New York, Anchor/Doubleday, 1981, illus., \$29.95 per volume (\$14.95 paper).

Reviewed by William Morgan, Professor of Fine Arts, University of Louisville.

G.E. Kidder Smith's massive, 2300-page, three-volume compendium of American architecture represents a monumental undertaking. Kidder Smith drove 135,000 miles throughout the 50 states to produce a "definitive architectural encyclopedia of our country," the stated purpose of which is to "establish architecture more fully in the cultural life of the United States." The book (in the author's words) is not an inventory, but rather a critical examination of structures "considered representative of major periods of development."

Such a task would appear to be beyond the abilities of any individual (although one is reminded of the 50-volume *Buildings of England* series, the majority of which were written by Sir Nikolaus Pevsner). But Kidder Smith is not Pevsner. And before the "tourist, the buff and the specialist" pay out \$89.95 (or half that amount for the paperbacks), they ought to realize that these ten pounds of unwieldy books will disappoint on almost all counts. No amount of traveling and research by the author (or even the imprimatur of the Museum of Modern Art) can compensate for the fact that this seemingly impressive array of words and pictures is nothing more than one man's personal exposition of American buildings. Surely, there is a need for a definitive guide to our country's diverse man-made heritage, but Kidder Smith (who identifies himself as an architect and critic, not a historian) just isn't the man to do it.

In his introduction to Volume 1, Albert Bush-Brown states that Kidder Smith "loves buildings themselves, as only architects do." Yet even architects will be frustrated by the author's selection, limited only to buildings open to the public (except for a few houses available for "sidewalk viewing"). For the average tourist, even the architecturally knowledgeable one, a three-volume work covering 1400 structures in the entire United States is bound to be unsatisfactory. Bush-Brown waxes poetic about "taking the guidebook from the glove compartment" and swinging "our automobile off the expressway" to locate certain treasures. But unlike the pocket-

[Books continued on page 204]

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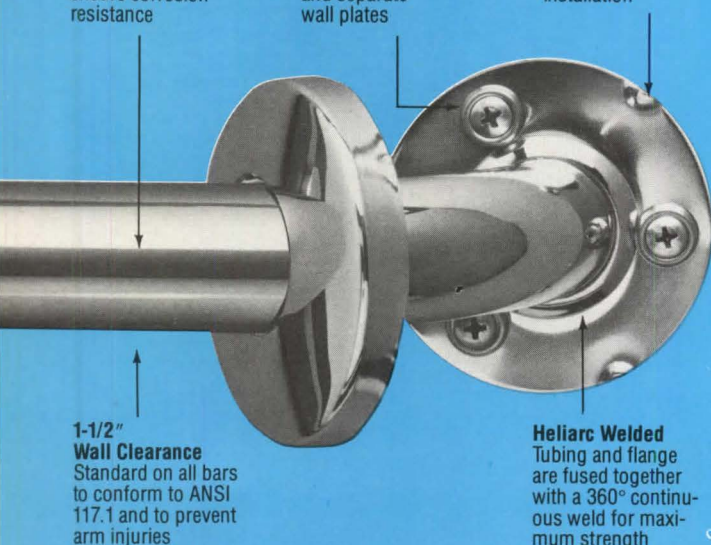
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Books continued from page 202

sized Michelin or Pevsner guides, these books are too large for almost any car storage space except the trunk, and they are too heavy to hold easily.

Even if we make allowances for the inherent limitations of such a project, are there things to be learned from these books? Yes, there are, especially if one shares Kidder Smith's Gropius-Giedion Modernist philosophy and if one is willing to accept his premise that the best American architecture was built in the 20th Century. If you are someone who is uncomfortable with eclectic buildings, who has doubts about Beaux-Arts-inspired works, and who venerates the designs of Skidmore, Owings & Merrill, then Kidder Smith's survey will have great appeal.

SOM crops up so often that a person unfamiliar with American architecture might easily conclude that theirs is the standard by which all other work is measured. Over a quarter of the buildings selected for Oregon and one-sixth of those in Idaho are by that firm. Throughout, SOM garners well over 50 entries, while Frank Lloyd Wright gets 28, Robert Venturi six, and Richard Meier one. Eclectic designers like Ware & Van Brunt, James Renwick, Richard Morris Hunt, and Ralph Adams Cram are included only where it would be too obvious to exclude them. After reading these books, one might believe that not much happened in American architecture between the Georgian period and the advent of the International Style.

Such criticism may seem overly harsh, but it is deserved. For example, Kidder Smith devotes a great deal of space to Modern buildings at Yale (Saarinen, SOM, Rudolph, Johnson, and Kahn) but leaves out the Gothic and Georgian quadrangles that contribute significantly to that University's pre-1950s image. In fact, the State of Connecticut would seem to have no notable 19th-Century buildings at all. William Burges's splendid Victorian Gothic complex at Trinity College is not mentioned, nor is R.M. Upjohn's marvelous State House (later, the author heralds the dreary North Dakota Capitol as "the outstanding governmental structure of the 1930s").

Kidder Smith includes Richardson's Trinity Church in Boston, of course, but not Cummings & Sears' New Old South Church across the street. He leaves out the Cathedral of St. John the Divine in New York, and in choosing Philip Johnson's Pre-Columbian Museum at Dumbarton Oaks in Washington, he ignores that institution's outstanding garden by Beatrix Farrand, America's foremost woman landscape architect. The result is a lack of balance that suggests both a blindness to and a misunderstanding of the variety, depth, and richness of America's building history.

Given the guidebook nature of these books, the failure to mention buildings close to those discussed is especially frustrating. While it obviously isn't feasible to include everything, the omissions on or near some college campuses point up the author's narrow vision, especially so when he discusses a contemporary building that attracts his fancy, but fails to mention works on the same campus or in the same town that might be of interest.

Hugh Stubbins's Coles Tower at Bowdoin College in Brunswick, Me (a 16-story concrete and brick tower that claims the distinction of being the tallest building in New England north of Boston), elicits Kidder Smith's praise. Yet, within a few hundred yards of the Coles Tower—and not referred to—is Bowdoin's remarkable central quadrangle containing the 1802 Federal-style Massachusetts Hall, Richard Upjohn's pre-Richardsonian Romanesque chapel, a museum by Charles McKim, and two notable Collegiate Gothic creations by Cram's mentor, Henry Vaughan.

At Harvard, the Longfellow House and Ware & Van Brunt's Memorial Hall (which Kidder Smith calls a "mammoth ugly duckling") are the only non-Modern buildings mentioned—there is no Bulfinch, no Richardson, no Harvard Yard. At Princeton, works by Cram, W.A. Potter, Cope & Stewardson, Stubbins, Pei, and Walker Cain are written up, but those by John Notman, Hunt, A. Page Brown, Minoru Yamasaki, Gwathmey/Siegel, and others are not. At the Insti-

[Books continued on page 207]

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Books continued from page 204

tute for Advanced Study in the same town, Kidder Smith rightfully stresses Robert Geddes' handsome new Academic Building, but he neglects to direct the reader to adjacent designs by Wallace Harrison, Jens Fredrick Larson, or Marcel Breuer.

In New Hampshire, Kahn's library at Phillips Exeter Academy is, of course, included, but not the same architect's dining hall next door. It is hard to imagine an architectural guidebook covering the Granite State which ignores Dartmouth, with its quintessential New England college green framed by Larson's Baker Library, Ammi B. Young's Reed Hall, or Harrison's Hopkins Center. It is to be expected that Kidder Smith would not appreciate Larson's masterful 1920s Georgian, but Dartmouth does boast two works by Pier Luigi Nervi (including his first American commission), not to mention a computer center by the author's favorite firm, SOM.

Not surprisingly, the first volume ("New England and the Mid-Atlantic States") is the richest and most interesting. There is perhaps less material in the Southern and Western states and, except for the occasional Spanish mission or works by SOM or Edward Durell Stone, states like Florida, Alaska, and Arkansas are hardly in the same category as New York, Pennsylvania, Illinois, or even Rhode Island. But having chosen to cover the entire country (a decision that is analogous to Nixon's 1960 promise to campaign in every state, which located him in Alaska the day before the election), it necessarily means that some states must be slighted. For example, there would be no reason to rely on Kidder Smith for discussions of Minnesota and California as there are excellent architectural guidebooks about those states written and coauthored (respectively) by David Gebhard—not to mention recent guides to Washington State, New Hampshire, and dozens of American cities. Even in the areas where there are no decent guidebooks, a WPA history or an HABS catalog would be more informative.

Gebhard's introduction to Volume 3 (*The Plains States and Far West*) offers the best writing in the books and is the most substantial of the four introductions (Bush-Brown, Frederick Nichols, and Frederick Koeper supply the others). Gebhard is the only contributor to address the issues of planning, suburban development, and the impact of highways on the environment, and the only one to place the buildings in a broad cultural context.

Certainly, it must have been difficult to write so many building descriptions without repetition. Kidder Smith's written entries are usually interesting and generally convey the building's importance. But often his metaphors are less than successful or even trite (Yamasaki's Queen Emma Garden Apartments in Honolulu are described as buildings that "do not sing but hum a civilized tune"), while other descriptions are groan-inducing (as when the neon strip at Las Vegas is called "so electric"). A distracting element is the insertion of metric measurements. One wonders if the directions are given in kilometers to aid German and Japanese tourists. But it is a bit silly—even ludicrous—to describe the quarter sections of the Homestead Act as being "160 acres/65 hectares."

Kidder Smith's high visual standards are a saving grace of the books. Here again, it must have been hard to depict yet another building in a revealing manner. The result is still hampered by the "major monuments" approach, but the author-photographer does show more of a building's ambience than he did in his earlier *Pictorial History of Architecture in America*. Unfortunately, these often quite handsome images are poorly reproduced. Another deplorable aspect of production is that these heavy tomes are glued rather than sewn; my copies are showing wear after a few weeks' usage (perhaps one is encouraged to rip out the various chapters as one needs them).

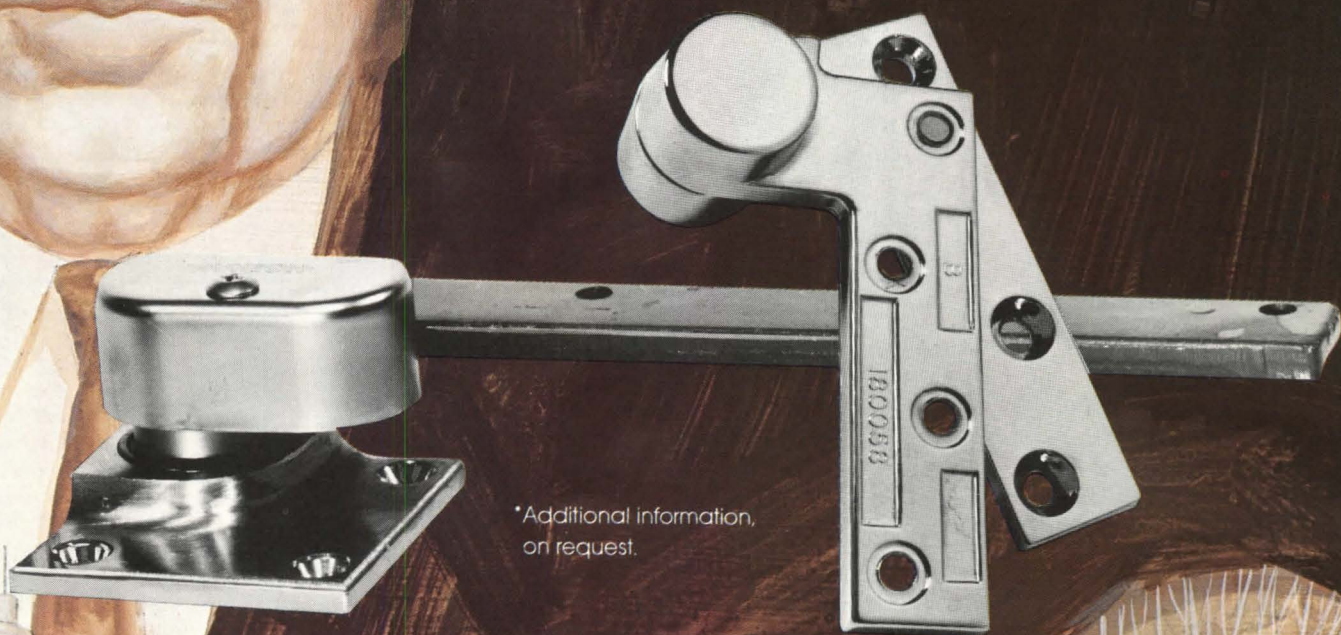
Everyone interested in architecture and the built environment would welcome a compendium of our architectural patrimony, but these books are an embarrassment. *The Architecture of the United States* is a less than illuminating, poorly produced, and overpriced set that contributes almost nothing to the literature on American architecture. □

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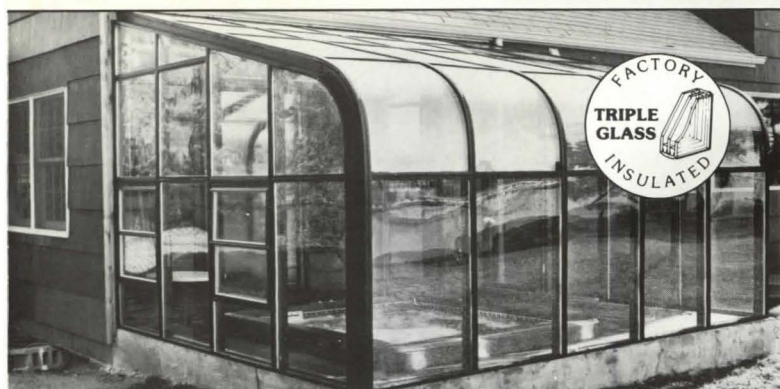
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Products and literature

The following items are related to the Technics article on computer-aided design and drafting.

Products



Sigma II computer-aided design system now has a touch-sensitive menu that allows the operator to enter 256 different commands, symbols, or macroprograms. An interchangeable overlay shows a customized menu for each type of drawing, such as furniture layouts, elevators, or mechanical details.

There is also a color raster display that allows the user to select 16 distinct colors from 256 available. User can specify overwrite, underwrite, blend, and complement to indicate the desired results when lines or areas intersect. Sigma Design, Inc.

Circle 451 on reader service card

The 4054 graphic computing system is for engineering and design areas requiring complex diagrams and high density interactive graphics. Expanded graphics capabilities include a 19-in. Direct View Storage Tube display which can support 133 character lines of text and has 13 million addressable points. It draws dotted, dashed, and solid vectors. It is compatible with other 4050 series computers in language, software, storage, and peripheral devices, such as the 4663 interactive digital plotter. Tektronix, Inc.

Circle 452 on reader service card

Summadraft for Architects includes a Data General minicomputer, magnetic storage, graphic display hardware, and software. There is also a comprehensive library of standard graphic and construction details catalogued to conform with the CSI numbering system. The system was developed jointly by Summagraphics and Arcomp Systems, Ltd. The package includes a training course, access to a hot line telephone number, and membership in a lending library of operating details to be shared among all system users. Summagraphics Corp.

Circle 453 on reader service card



Computer-aided drafting for two-dimensional designs uses standard drafting practices and nomenclature so those with little or no computer experience can operate it after a brief training period. Typically, it consists of a Tektronix 4054 desktop computer, CRT display and system console unit, graphic display, data storage, and plotter. A tutorial cassette is available to prompt the user through an unfamiliar task. Plotters for C, D, or E sizes are available. Revisions need to be made only once; the system will incorporate them into new drawings. Keuffel & Esser Co.

Circle 454 on reader service card

The ICS-CADD system has interactive computer graphics and engineering design processing, as well as word processing capabilities. Created as a less expensive system suitable for both large and small offices, it uses high-speed microcomputers and efficient software. Each station can have its own plotter, or remote stations can communicate drawings to those stations with plotters. The basic station uses the Digital Equipment

[Products continued on page 211]

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Products continued from page 209

Corp. central processor, fixed disk drive, a 19-in. graphic CRT, and drafting software. Interactive Computing Systems.

Circle 455 on reader service card

Design Graphix computer-aided design and drafting system, based on the Digital Equipment Company LSI-11 general purpose computer, includes separate graphics display console, command console, digitizer station, plotter station, and telecommunications modem phone. The company's proprietary software provides three-dimensional graphics processing, multi-tasking, multi-layered drawing, extensive editing and drawing modification capabilities, geometric generation, and user definable symbols. Used with DEC and DEC-compatible hardware and appropriate software, the system will also do word processing, accounting, and business graphics. Engineering Systems Corp.

Circle 456 on reader service card

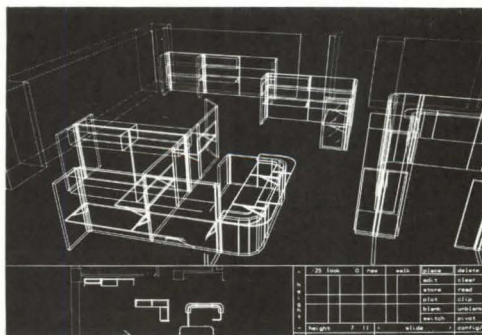
Distribution Analysis for Power Planning Evaluation and Reporting (DAPPER) is an electrical power distribution design system. It can be used in designing power distribution networks for new buildings, such as schools, hospitals, office buildings, and government installations, or to evaluate systems in existing structures. Design modules include load analysis, feeder and transformer sizing;

voltage drop and load flow analysis; balanced, three-phase fault analysis, and unbalanced fault analysis. Control Data Corp., CYBERNET Services.

Circle 457 on reader service card

Spatial Programming Design System (SPDS) software for AD/380 automated design and drafting system allows architects, space planners, and facilities planners to solve space allocation problems by manipulating solutions on a computer display screen. It automatically generates relationship charts, bubble diagrams, space diagrams, and final layout plans. Auto-trol Technology Corp.

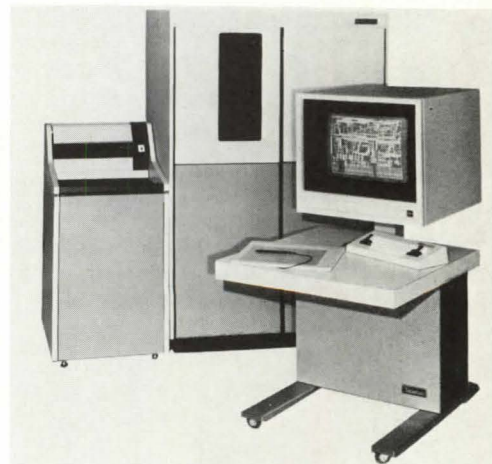
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Dynamic Design and Drafting (DDD) software, available on a licensing basis, includes a three-dimensional modeling program that enables designers to "walk" through a simulated building and analyze solutions and a two-dimensional program for creating archi-

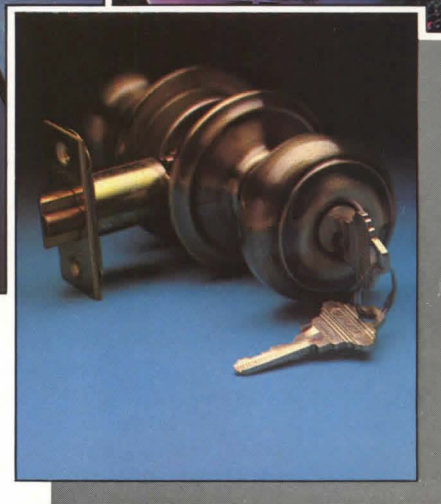
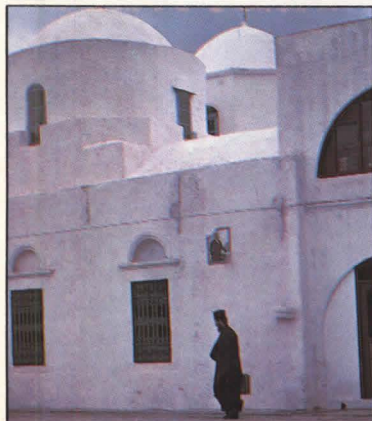
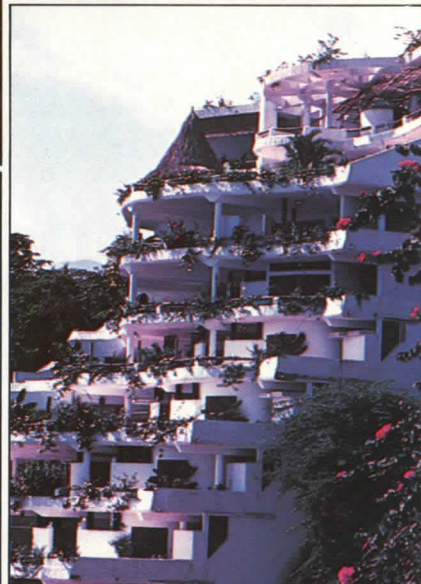
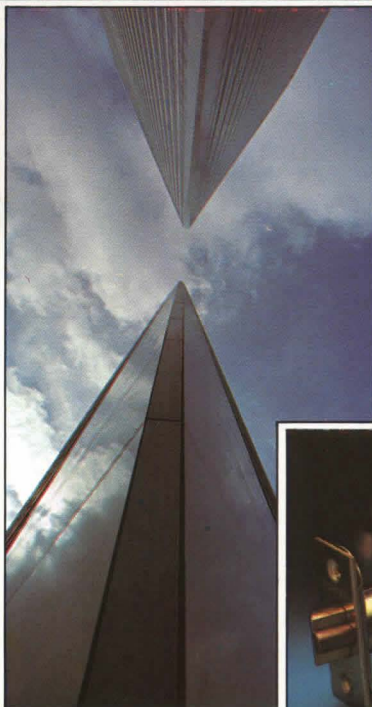
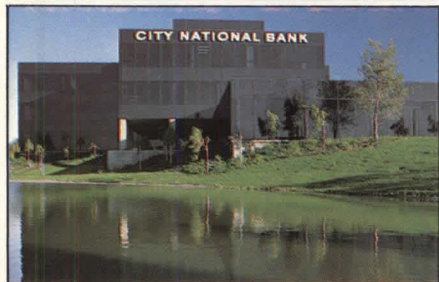
tectural and interior plans and elevations. The programs can be tied into the company's Facility Operations Support™ system, which associates graphic data with alphanumeric data from which specifications lists and pricing and inventory reports can be generated. It operates on an Evans & Sutherland Corp. Multi-Picture System and a Digital Equipment Corp. PDP-11 or VAX minicomputer. Herman Miller, Inc.

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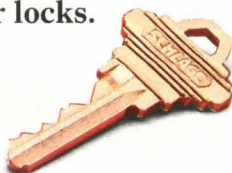
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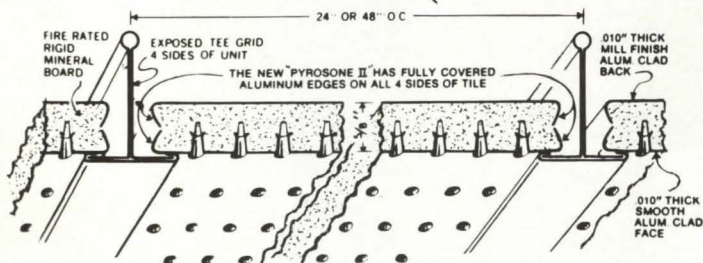
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Products continued from page 211

to detail drawings in substantially less time than when it is done manually. Components are a Digital Equipment Corp. PDP-11/34, graphics 32 display processor, a disk subsystem, a dual-density magnetic tape subsystem, a graphics workstation, and an alpha-numeric terminal. Applicon, Inc.
Circle 461 on reader service card

Dimension III electrical schematics software package allows designers to create schematics from rough sketches or directly. The electrical design information becomes part of an integrated data base. It associates appropriate wires and components and alerts the designer to crossed signals or short circuits. Calma Co.
Circle 462 on reader service card

DI-3000 graphics development tools are based on the CORE system. The device-independent software operates on IBM, Hewlett-Packard, DEC/VAX, DEC/PDP, Data General, Burroughs, and other mainframe and minicomputers. Level C includes a full modeling system for high-performance computer-aided design. Precision Visuals.
Circle 463 on reader service card

An interactive graphics system for entry level is intended as a stand-alone system for smaller firms. It provides the ability to create, manipulate, display,

and plot graphics information. Its software is compatible with the company's other systems. The system can also be used as a network component in larger organizations. A two work-station system includes the 11/23 CPU, a file processor and communications concentrator, disk drive, tape drive, alpha-numeric control console, and two monochromatic dual 19-in. raster screen work-stations. Intergraph Corp.
Circle 464 on reader service card

The HP7470 two-pen graphics plotter is compatible with the company's desktop, personal, and large computers, as well as IBM, Apple, and Commodore personal and business computers. Among other capabilities, it can produce technical drawings. It has scaling ability, automatically reconfiguring a graphic or character to fit within a certain area. Hewlett-Packard Company.
Circle 465 on reader service card

Literature

'The 1982 Computer Graphics Suppliers Directory' covers suppliers of hardware, software, systems, and services. The 100-page directory has an alphabetical list of vendors, their addresses, telephone numbers, products, and services. It also lists vendors under specific categories by products and services. Information is provided about sponsors of seminars, conferences, and courses. Price is \$47 prepaid in the U.S.,

Canada, and Mexico; \$54 prepaid elsewhere. Stanley Klein, Publisher, Computer Graphics Directory, 730 Boston Post Road, P.O. Box 392, Sudbury, Ma 01776.



Computer graphics services combining hardware, software, data bases, support services, and training are available directly or accessed through remote work stations. The service is applicable to corporate, government, military, institutional, and private clients with architectural, engineering, facilities management, and command and control projects. Interactive Graphics Services Corp., Subs., The Everett I. Brown Co.
Circle 466 on reader service card

The CalComp interactive graphic system (IGS) expedites design, increases drafting productivity, and standardizes drawing appearance. It scans a drawing and automatically extracts and prints a bill of materials, which is updated
[Literature continued on page 217]

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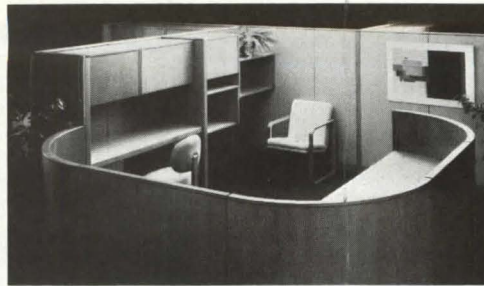
whenever a drawing is revised. Capabilities of IGS are explained in a 16-page brochure. Components include: matrix printer, system processing facility, workstation, digitizers, and output devices. California Computer Products. Circle 467 on reader service card

Stacking plan and cluster analysis software program is adaptable to a wide range of computer hardware and space-planning requirements. A four-page brochure describes the program and its application to space-planning. For a free copy, write to Robert J. Krawczyk, Computer Application Consultant, 5219 N. Lockwood Ave., Chicago, IL 60630.

The following items are related to the Interior Technics article on open office partition systems.

Products

The EOC Panel System has concealed tracks for mounting components and a metal raceway, clad in wood, with access through flip-up panels. Partitions are fabric covered in wood frames. Free-standing desks, credenzas, chairs, tables, bookcases, and files complete the system. Executive Office Concepts. Circle 468 on reader service card



GPS open plan office panels come in four heights and four widths. Panels can be rift oak veneer on both sides, oak veneer on one side and acoustical on the other, or acoustical on both sides. There are 15 fabric colors and three wood finishes. Desks can be freestanding or attached to the wall. Pedestals can be used on either the left or the right. Task lighting is available, and wire managers keep cords out of the way. Installation is simple and components are easily rearranged. Gunlocke Co. Circle 469 on reader service card

SerieSeven modular office systems have interchangeable components and panels for flexibility. Panels are installed with one type of hinge/connector that allows individual panels to be added or removed easily. Panel heights are 40 in. and 50 in.; widths are sized to accommodate standard desks. Acoustic panels are available that both absorb noise and block its passage. IKD Corp. Circle 470 on reader service card

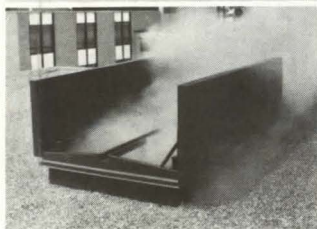
System 9 office partitions are fabric-covered acoustical or transparent. The system includes work surfaces, pedestals, storage units, CRT platforms, lighting, power and communications facilities, and accessories. The easily assembled work stations can be demounted and reassembled to meet changing needs. Precision Manufacturing, Inc. Circle 224 on reader service card

The Plenum System open office, with freestanding desks, cabinets, and credenzas, is adaptable to a variety of installations and sizes. The 2½-in.-thick panels, straight or curved, have a hardwood interior frame covered with wood veneer, fabric, or transparent plexiglass. Work surfaces can be attached, and storage units can be used beneath or overhead, the latter with integral task lighting. Modern Mode, Inc. Circle 471 on reader service card

Privacy Panel System™ provides four panel heights, including one that is full height. Panels are standard or acoustical in baked enamel on steel, fabric-wrapped steel, or glazed. Panel colors match furnishing components. Electronic systems support furniture consists of desks and cantilevered work surfaces, and a prewired power base distributes power and communications wiring. E.F. Hauserman Co. Circle 472 on reader service card [Products continued on page 219]

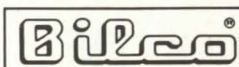


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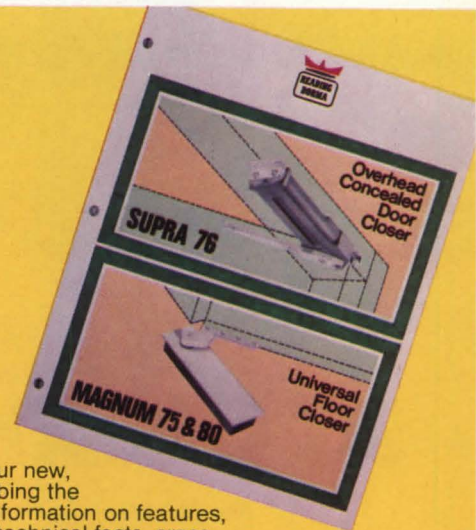


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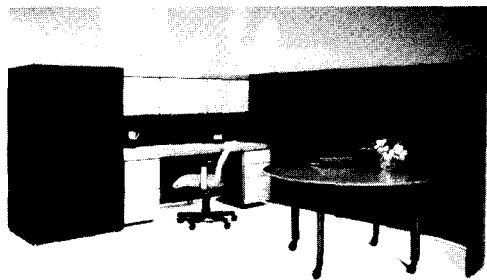


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The Zapf system is now available with postformed laminate surfaces that provide hardness, stain resistance, and durability. The continuous surface has no edges to trap dirt. The laminate can be provided on all horizontal surfaces: work surfaces, extensions, shelves, word processing components, closet tops, fascia strips, and file top kits. Colors are beige, light gray, medium gray, and slate, which can be combined with the expanded choice of fabric colors offered. Knoll International, Inc.
Circle 473 on reader service card

OptionsTM office partition system, designed by Bob Becker, consists of a lower, 29-in. desk height wall and an upper wall to desired height. A mounting track at the juncture of the two walls allows work tops and storage pieces to attach where needed. Components can be added or removed easily, without tools. Panels are available fabric covered, wood and fabric combinations, or wood paneled. Helikon Furniture Co., Inc.
Circle 474 on reader service card

Quantum modular storage units fit within open plan offices or act as dividers. Bases accommodate wire managers for electrical and communications cables. There are writing or machine shelves, 3-in. to 15-in.-deep drawers, card storage, overfile, and storage units. Files have optional legs. Matching desks and credenzas are also available. GF Business Equipment, Inc.
Circle 475 on reader service card

A panel system for open office plans combines both panel-mounted components and freestanding desks, seats, files, and accessories. The modular power and communications network accommodates lighting, information processing, and communications. Litton Business Furniture.
Circle 476 on reader service card

Panels for open office plans have wood detailing for top caps, end caps, and corner detailing, providing an all-wood look. Panel components are offered in seven colors to match seating upholstery. Base plates, finished in chrome or dark neutral, can be used on either electrified or nonelectrified panels. American Seating.
Circle 477 on reader service card

Panels in the 8000 series for open office plans are available acoustical on one side and metal or laminate on metal on the other or acoustical on both sides. Straight panels come in four heights and seven widths; nonglazed curved panels come in four heights; glazed in two heights. They are covered in fabric or coated with textured paint; glazing is clear or tinted. The hinge system allows easy mounting or demounting. All-Steel Manufacturing.
Circle 478 on reader service card

HarterWall partition frame units install with only four standard bolts. Preassembled raceways can be wired on site; prewired sections have frame-to-frame plug-in connectors. Panels are inserted into the frames and secured in place with hidden locking bars. Fabric covers

can be detached for cleaning or replacement. Harter Corp.
Circle 479 on reader service card

Open office partition units are straight or curved vision panels, straight acoustical panels in four heights, and curved fabric panels. Top trim is solid oak. Panels can have a solid hardwood base or metal wire management base, both with adjustable glides. Storage cases, work surfaces, and pedestals complete the work station. Rose-Johnson.
Circle 480 on reader service card

Tempo 3 modular open office systems include straight or curved panels, work surfaces, storage, pedestals, and lighting. Raceways in each panel base have room for up to 16 25-pair cables and six
[Products continued on page 220]

Granite.

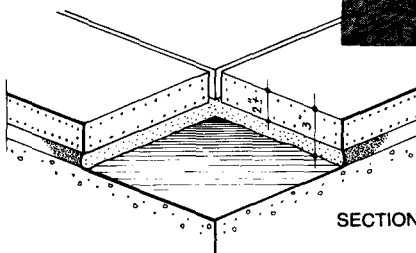
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Architect: Philip Johnson & John Burgee, New York, N.Y.



Cold Spring Granite Company, Dept. PA-5 202 South 3rd Avenue, Cold Spring, MN 56320

Products continued from page 219

20-amp circuits. Panels are fabric-covered with matching or harmonizing steel tops and bases. Shaw/Walker.
Circle 481 on reader service card

Spacesetter portable panel system, with full-height partitions, requires no permanent attachment to walls or ceiling and is simple to relocate. Of unitized metal frame construction, it is available in over 50 fabric, vinyl, or carpet finishes. It has a Class A flame-spread rating and optional sound-absorbent surfaces. Modernfold.
Circle 482 on reader service card

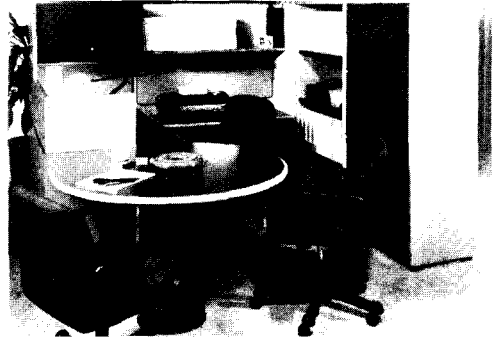
The AD Panel System is suited to the electronic office. CRT units, word proc-

essing machines, and microfilm readers are easily positioned at the right height. Both task and ambient lighting are provided, and two completely different raceways meet wiring and communication needs. Wood, fabric, and plastic surfaces are available. Alma Desk Co.
Circle 483 on reader service card

Literature

Ultronic 9000 systems furniture for the electronic office is described in a 24-page brochure. Top trim of the 34-in.-high structural panel lifts off for installation of up to 16 25-pair cables. Components include clear access end panel, structural panel, work surfaces, freestanding support with shelf for bottom-feed printers, and split-top machine table for

CRT with detached keyboard. Steelcase.
Circle 484 on reader service card



Marcatré, a wood-based office partition system of work stations, tables, desks, storage, and accessories, was designed by architect Mario Bellini. Work surfaces expand left, right, forward, or back; panel heights range from low, for privacy with visibility, to tall, with complete privacy. The system is described and illustrated in a 22-page, full-color brochure. Atelier International, Ltd.
Circle 485 on reader service card

'Office Environments' brochure discusses open office planning, including ceiling, walls, lighting, and furniture. The 12-page booklet covers flexibility of arrangement and its relation to interaction between associated tasks. Full-color photographs illustrate the products that make up such offices and the ways they can be combined to suit individual needs. Conwed Corp.
Circle 486 on reader service card

The Scheffer System of office space planning is described and illustrated in a 24-page, full-color brochure. Photographs show construction details and wire management. Drawings provide dimensions and indicate optional variations. Modular design permits add-ons to be incorporated to expand a work station. Metrix Wood Div., Scandinavian Wood Industries, Ltd.
Circle 487 on reader service card

Advent III work stations are factory assembled, but are easily moved for office rearrangement by means of handle cut-outs. A 16-page brochure describes the concept, components, adaptability, lighting, and electrification. Harvey Probber, Inc.
Circle 488 on reader service card

'Efficiency in Open Plan Systems' offers product information about panel systems, furniture components, electrical raceway systems, and accessories. The eight-page, full-color brochure provides specifications for the three types of panels and discusses IMPAC, the three-circuit, six-wire electrical system. Panel Concepts, Inc.
Circle 489 on reader service card

Undercarpet cabling for power, data, and telephone distribution, is discussed in a 16-page catalog that outlines its features and benefits. Installation, fitting, accessories, and specifications are ex-
[Products continued on page 222]

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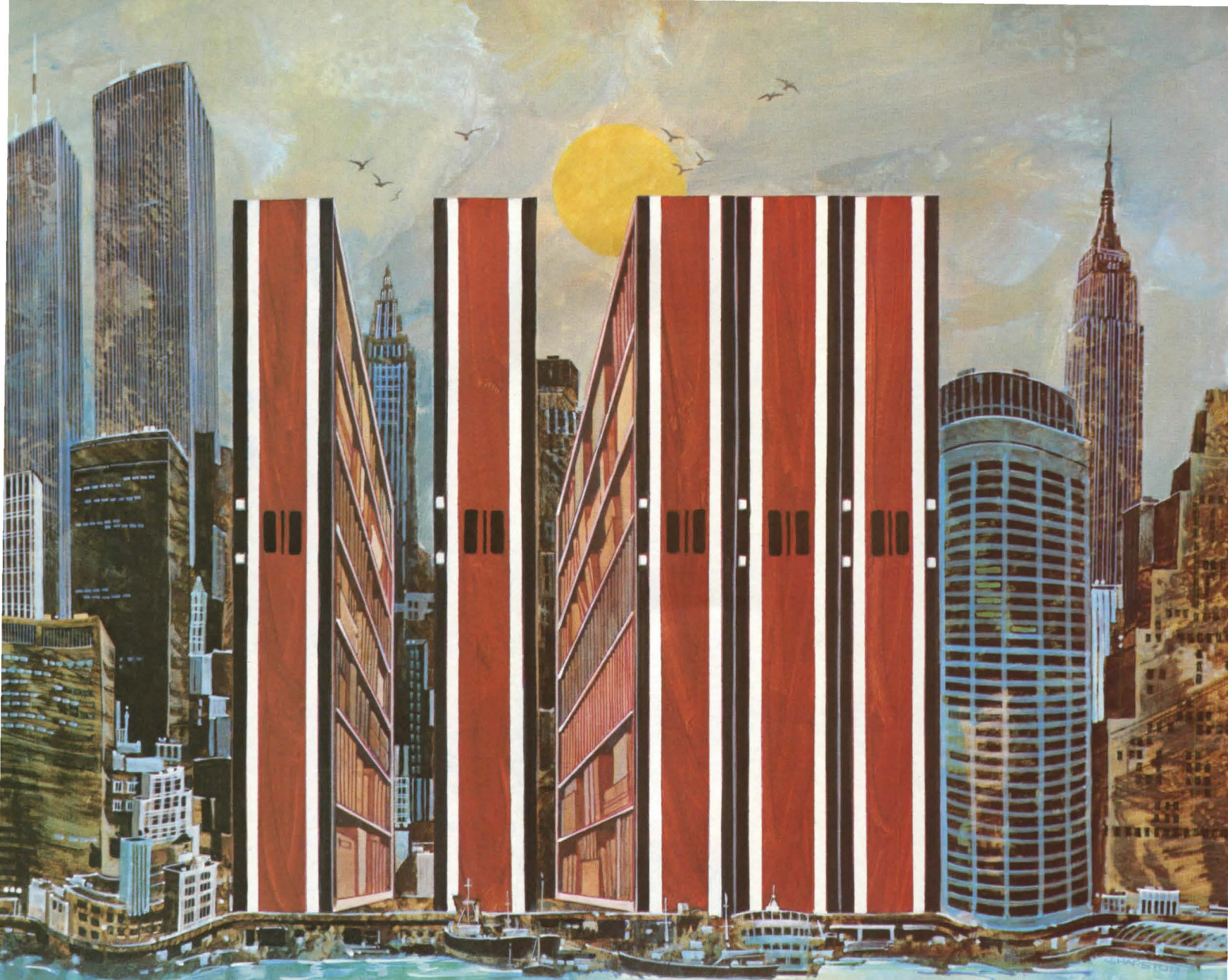
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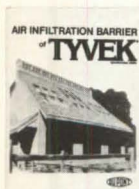
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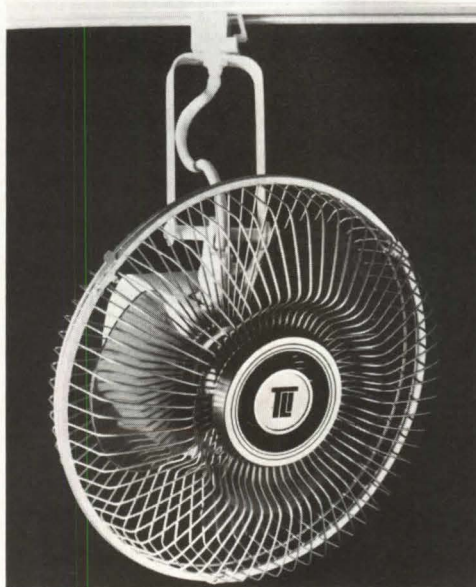
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Products continued from page 220

plained. The system is used with carpet squares in open office plans and eliminates the need for underfloor ducts, utility poles, or "poke-throughs." AMP Special Industries.

Circle 490 on reader service card

Other products



Trak-Fans, designed for use with lighting tracks, keep air moving to eliminate stratification of hot and cold layers. The fans turn on and off with a pull-chain and have an on/off switch to control oscillation. When they are used with TrakLiting Duo-Trak, lights and fans can be operated independently of each other. TrakLiting, Inc.

Circle 491 on reader service card

MRT/AM-4 Globe thermometer provides a means of monitoring, controlling, and verifying the performance of radiant environments and components. It indicates radiant environments as a person would experience them rather than measuring ambient air temperature. Solarware, Inc.

Circle 492 on reader service card

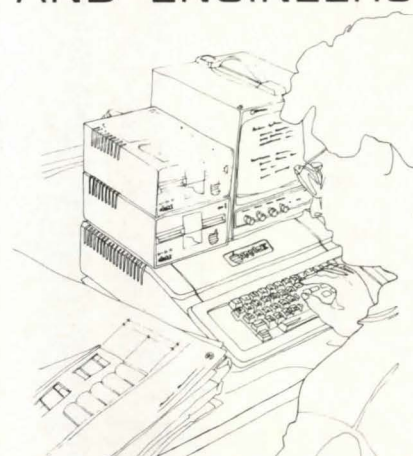
Provider™ freestanding heat-circulating fireplace has bifold glass fire doors, removable ash drawer, and a humidifier. The fireplace has been increased over previous models by 2 in. to 26 in. Porcelain enamel finishes available are chestnut, mahogany, and black. In efficiency tests, the fireplace achieved a maximum output of over 73,000 Btu per hour. Preway, Inc.

Circle 493 on reader service card

Thermanel™ insulated shutters used on the inside of windows can save as much as 33 percent of heat loss when they are closed at night. The insulation, with an R-value of 9, is enclosed in pine panels, in pine-framed textured fabric, or in frames with fabric or wallcovering of user's choice. The company also

[Products continued on page 224]

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The Aurora conference and dining room chairs - one of several new designs Arconas will introduce at Neocon.

The attractive fluted upholstery covers a sturdy steel frame construction molded in high resiliency urethane foam for durability and comfort. Designed by Andre Vandenbeuck.



Circle No. 308 on Reader Service Card

Products continued from page 222

makes shutters for sliding glass doors. The Neilson Co.
Circle 494 on reader service card

TEMP-MISER controls air-conditioners, heaters, fans, heat pumps, lights, and water heaters. Indoor and outdoor temperature sensors determine the best time to operate HVAC equipment. Programming is based on time of day and day of week scheduling. Holidays can be scheduled up to a year in advance, and the system automatically adjusts to daylight savings time and leap year. Battery backup power is provided. Micro-Control Systems.

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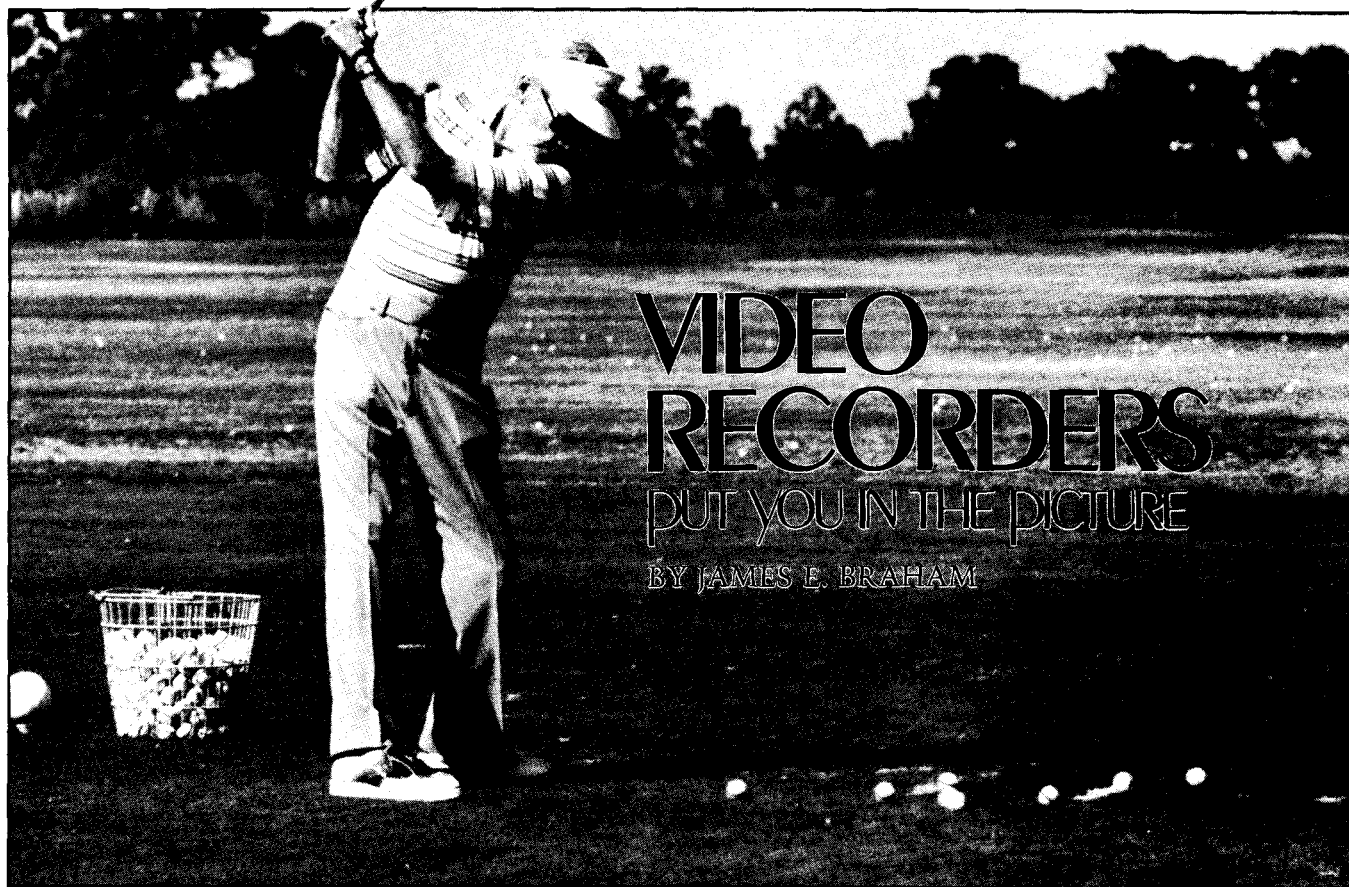
Building materials

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

Paul L. Barone Medical Building, Nevada, Mo (p. 152). Architect: Abend Singleton Associates, Inc., Kansas City, Mo. Concrete foundations: Ceco Steel Products Co. Built-up roof: Owens-Corning Fiberglas Corp. Brick: Acme Brick. Window framing: Kawneer. Insulated glass: Cardinal. Custom circular gasket: Stan-lok Gasket Co. Skylights: Imperial Glass Structure Co. Entrance doors: Kawneer. Interior metal doors: Bymoco Metal Fabricators. Interior floor tile: GAF Corp. Exposed fiber deck ceiling: Petrical. Acoustical tile: Celotex. Sealants: Tremco. Dampproofing: Sonneborn. Fiberglass insulation: Celotex. Roof drains: Zurn Industries. Partitions: U.S. Gypsum. Paint: Cook Paint & Varnish Co. Bathroom floors and walls: Pratt & Lambert. Ceramic tile: American-Olean. Hinges: Lawrence Brothers. Locksets: Schlage Lock Co. Door closers: Rixson-Firemark. Panic exit: Von Duprin. Push/pulls & kick plates: Cipco. Electronic control hardware: Adams-Rite Company. Door alarm system: Cornell Electronics Inc. Door intercom system: Faraday. Security control hardware: Adams-Rite Company. Signage: Metal Arts. Elevators: Dover. Handrails: Vinyl Products. Interior fluorescent lighting: Lite-control Corp., H.E. Williams Products Co. Interior incandescent: Sterling/Lightcraft, Marco/Marvin. Stairway fixture: Atelier International. Exterior: Harvey Hubbell Inc. Emergency lights: Yorklite Electronic Products. Lavatories and tubs: American-Standard. Plumbing fittings: American-Standard. Shower fittings: Powers Regulator Co., Sloan Valve Co. Toilet partitions: Global Steel Products. Washroom accessories: Bobrick. Water fountains: Elkay. Sprinklers: Reliable Automatic Sprinkler Co. Post indicator valve: Grinnell. Stainless steel tanks: Elkay. HVAC controls: MCC Powers. Fiberglass louvers: Advanced Fiberglass Co. Carpets: Horizon Carpet. Freeformed benches: Foldcraft Co. Hospital curtain track: Kirsch Co.

MANAGEMENT PERSONAL TIME

MONTHLY SECTION ON TRAVEL AND PERSONAL INTERESTS



VIDEO RECORDERS PUT YOU IN THE PICTURE

BY JAMES E. BRAHAM

A video cassette recorder's view of Westinghouse Chairman Robert E. Kirby on the golf range.

When America's speediest Rubik's Cube whizzes competed last winter on the TV show "That's Incredible," Robert E. Kirby stopped them in the act. A game and puzzle fanatic himself, the Westinghouse Electric chairman and CEO taped their maneuvers with his home video cassette recorder (VCR) and then replayed them in slow motion, to analyze their moves.

"These kids were solving it in something like 26 seconds and I just wanted to see how they were doing it. So I taped them and ran it back at one-tenth speed," he explains.

Mr. Kirby, who a few months ago won a Rubik's Cube contest among Pittsburgh CEOs (his winning time was 2 minutes, 8 seconds, but he has done 1:15 with his own "doctored up" cube), is an enthusiastic endorser of

the VCR, the hottest new ticket in home entertainment.

"I use it for almost everything," he says of his Mitsubishi recorder and portable color sound camera. A 12-handicap golfer who's a member of the board of directors of pro golf's PGA tour, he tapes his swing and then plays it back through his TV in slow-motion or stop-action. "It's an extraordinary tool for teaching and correcting mistakes," he says.

He also has taped himself playing tennis and swimming; he tapes his family ("I keep a record of my two grandchildren as they're growing up"); he takes interior pictures of his home for insurance records; and he uses his VCR for business, taping his Westinghouse appearances in order to improve his presentations.

In addition, he tapes television pro-

grams for later viewing, at his convenience. Functioning like an audio tape recorder except that it shows a picture through a TV set, the VCR is used by most buyers chiefly as a playback device. You can record a program (on regular or cable TV) while you're away, or while you're viewing another show, or when you simply don't wish to watch TV. The tape can be saved or erased and used over and over again. You can also buy or rent prerecorded movies or other shows to play back and watch.

"I use it quite often to record programs when I'm not at home," Mr. Kirby says, citing specifically Presidential press conferences.

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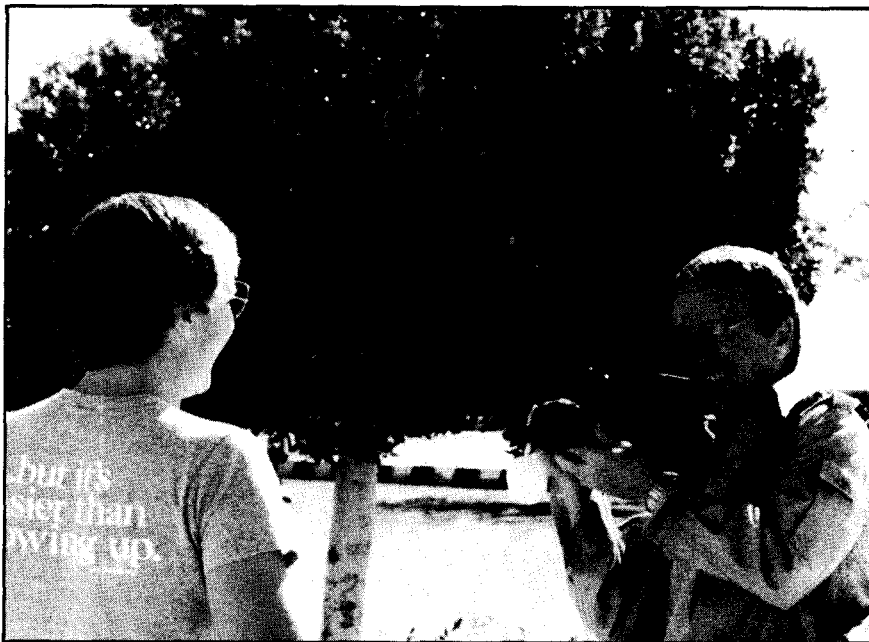
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MANAGEMENT PERSONAL TIME



NBC-TV Nightly News co-anchor Tom Brokaw is "on-camera" in Egypt, as George Stevens Jr. gets a charge out of his Sony Betamax.

by the busy executive. As Wallace R. Jones, president of Excella Specialty Co., Cleveland, says, "My problem is that when I want to sit down and watch a TV program, usually there's nothing on I want to watch. This way [he bought a Sony Betamax last fall] I can tape things like Presidential speeches, football games, or old movies. I'm an old-movie nut and they usually come on late at night."

Says Ayse Kenmore, owner of Liberty Music Stores, New York: "A VCR lets you be your own programmer. It's not Fred Silverman [ex-NBC honcho], it's you. YOU decide what you watch, on YOUR time." Mrs. Kenmore practices what she preaches. While she was traveling abroad, she had her husband or housekeeper tape some favorite series. Upon her return she watched "I, Claudius" and "Brideshead Revisited" and other programs at her pleasure, which included "zipping through the commercials." A "scan" or "search" button, one of many special-effects features on a VCR, advances a tape at ten to 20 times the normal speed.

"I believe it makes for a more orderly family life," says David McKinnon, principal partner of McKinnon &

Associates, a Dallas CPA firm. "And since we got our VCR [a Magnavox], I find I'm not watching ordinary programs as much."

What to buy. What should you consider in purchasing a VCR? How you'll use one should determine what equipment you buy. If you intend simply to record TV programs or show prerecorded movies, the console model VCR is all you need. This one-piece unit is hooked up to your TV (warning: installation is tricky and takes time) and usually rests atop it. However, should you want to take video "home movies," as Mr. Kirby does, you need instead the lighter-weight, two-piece portable VCR and color sound camera. It can both record scenes and play them back via a TV set. Portables are increasingly popular and should account for about 30% of the 2 million VCRs expected to be sold this year.

Although more than 20 VCR brands are on the market, virtually all of them are produced by four Japanese manufacturers. Thus, most VCRs differ only slightly. They do come in two different tape formats, however, and your dealer's advice will be invaluable in selecting either the Beta or the VHS



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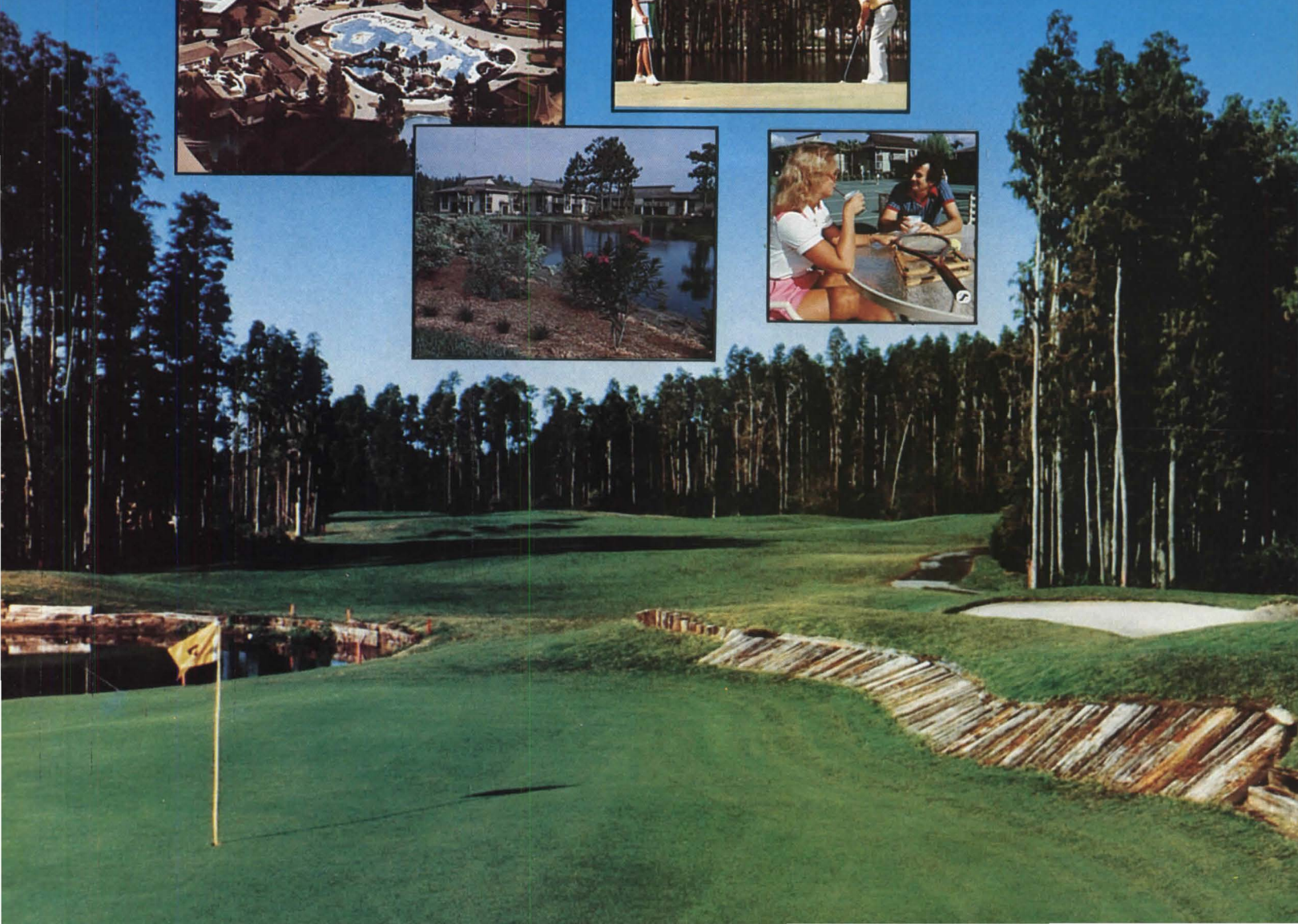
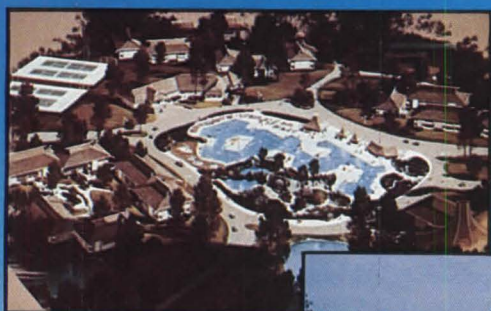
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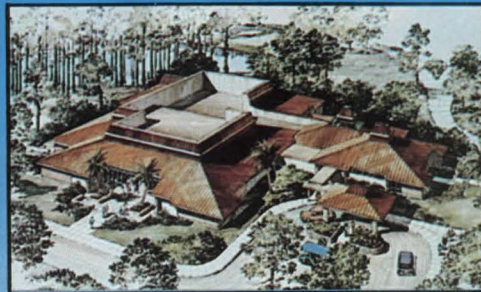
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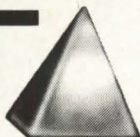
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MANAGEMENT PERSONAL TIME

system. The two formats are not interchangeable—meaning that if you intend to swap tapes with a friend, you need the same type of cassette.

Sony essentially invented both systems, dropping VHS for technological reasons in favor of the Betamax in 1975. The Beta cassette is smaller and is generally regarded as having a slightly superior picture when played at slower speeds. The VHS (Video Home System) offers longer playing and recording time, and now accounts for about 70% of the market.

Matsushita Electric is the giant of the industry, accounting for over half of all VCR sales. Matsushita, US JVC Corp., and Hitachi produce nearly all the VHS sets. Sony dominates the Beta market.

Prices have been plunging and now range from about \$600 to \$1,600. A good top-of-the-line VCR can be purchased for about \$1,100 (\$1,500 list). A good color and sound camera runs from \$800 to \$1,200. A top-of-the-line "package" (VCR plus camera) costs \$1,800 to \$2,000. All the accessories could increase this to \$3,500.

Greater programming capacity and remote control are among the most desirable features of the more expensive VCRs. RCA Corp. recently introduced a tape cassette—made by Matsushita—which can record up to 8 hours of programs, a boost from the previous high of 6 hours in the VHS format. Sony's maximum Beta cassette time is 5 hours, but it now offers a Beta Stack which holds four cassettes, stretching recording time to a whopping 20 hours. Some VCR units allow you to preselect and record as many as eight programs over a three-week period. Even the lower-priced VCRs provide all the programming most viewers need, however; you can set them as much as 24 hours ahead to record one or more programs on a single channel.

Most decks have a choice of three speeds, meaning that the VHS cassette can record and play for 2, 4, or 6 hours. While some picture and audio quality are sacrificed at slow speed, it still beats the typical TV picture.

Blank tape runs from \$12 to \$15 a cassette and you're advised to buy only a major brand. Prerecorded movies average about \$70 in cassette form; X-rated films are even more expensive, \$90 to \$100. These "adult"

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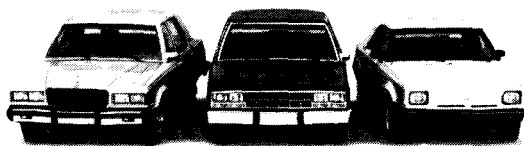
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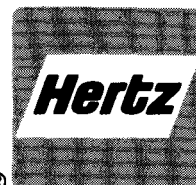
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movies represent an estimated 60% of all sales. Rentals from dealers or clubs are a much larger market; a typical over-night charge runs from \$3 to \$7.

(Note that a Federal Appeals Court decision of last October ruled that videotaping of TV programs, even in the home, violates the copyright law. That decision is expected to be reversed—how could it ever be enforced?—by the time it eventually reaches the U. S. Supreme Court or is remedied by legislation in Congress.)

If you're not interested in doing your own recording, you might consider the videodisc. Its content is on a prerecorded disc, similar to a long-playing record, rather than tape. The videodisc offers a sharper picture and it's more economical, but sales are a bust because it has no recording, time-shifting, or movie-making ability.

VCR sales, by contrast, are rising rapidly, and the video camera is a prime reason. It offers color and

sound. It's lightweight, portable, and easy to use. The better models have an electronic viewfinder—a tiny, black-and-white picture tube that shows exactly what you're taping. If you're not satisfied, just shoot again.

No home movies? There's no wait for processing and the cost is but a tiny fraction of Super-8 movie film of the same duration. A good-quality blank tape cassette can be purchased for as little as \$12 and will play for as long as 6 hours; a Super-8 movie of the same length would run more than \$650 by the time you paid for all the film and processing.

"I think video cassettes and cameras will make the standard home movies obsolete. The cost is very nominal and it's very easy to plug into a TV to watch," says Charles A. Stoody, chairman of Stoody Co., an Industry, Calif., hard-facing welding alloy maker. He has a portable VCR and camera made by JVC, which he

used to record a boat trip to Mexico. He also keeps a JVC console recorder on his home TV for taping shows.

George Stevens Jr., chairman of the American Film Institute, Washington, finds many uses for his Sony Betamax VCR and camera. The son of the late great Hollywood moviemaker and an award-winning independent TV and film producer-writer himself, Mr. Stevens took his VCR unit along when his family and that of NBC newsman Tom Brokaw went off on a two-week trip to Egypt and Israel last Christmas. He taped 5 hours and will edit this to a 1-hour show.

"The equipment is fabulous. It's a remarkable little unit," the producer exclaims. The Betamax was a hit at the Stevens' annual Super Bowl party last January. "As the guests arrived, I asked them who they thought would win and why and I taped their predictions . . . Jack Valenti and Ben Bradlee and all our Washington cronies. Then at half time I played these predictions back. So, instead of watching the CBS half-time show, we had our own little half-time show."

Roy Gentles, president of Alcan Aluminum Corp., Cleveland, uses his VCR in limited fashion, but it doesn't reduce his enjoyment. An avid sportsman, Mr. Gentles says he doesn't have the time now to even watch TV shows, much less record them, but he and his wife Margaret take pleasure in playing tapes of family events taken by their son-in-law.

Recording his baby daughter in detail on tape is the reason why Don Miller, a key accounts representative in Atlanta for Faberge Inc., purchased a top-of-the-line Hitachi VCR with "all the whistles and bells." Says Mr. Miller: "A lot of people will think \$3,000 is a lot of money to put on a toy—and it is a lot—but a child is priceless. We want our child to know us, to be able to see how she lived when she was a baby, where she lived, how we all looked, what we did. All of us are changing every day and you only go through life once.

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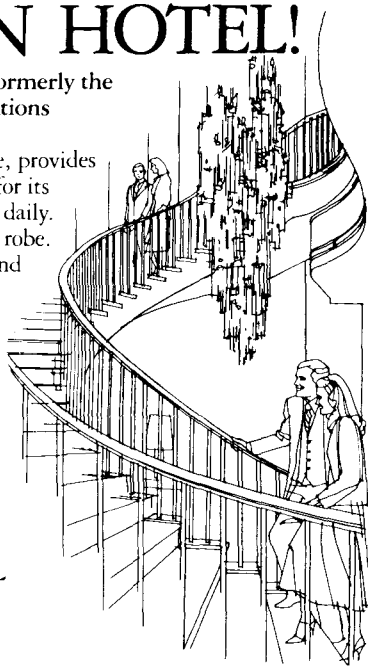
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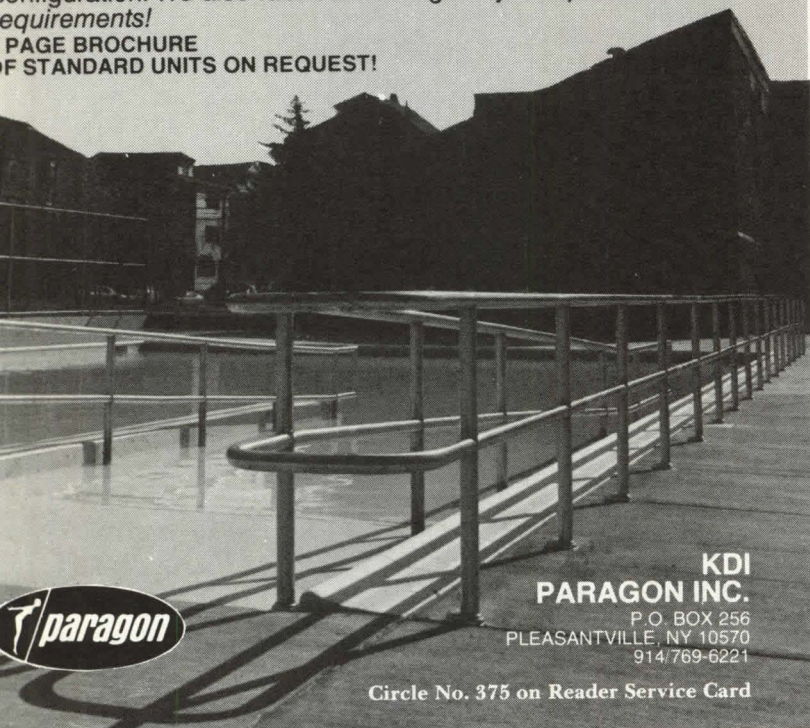


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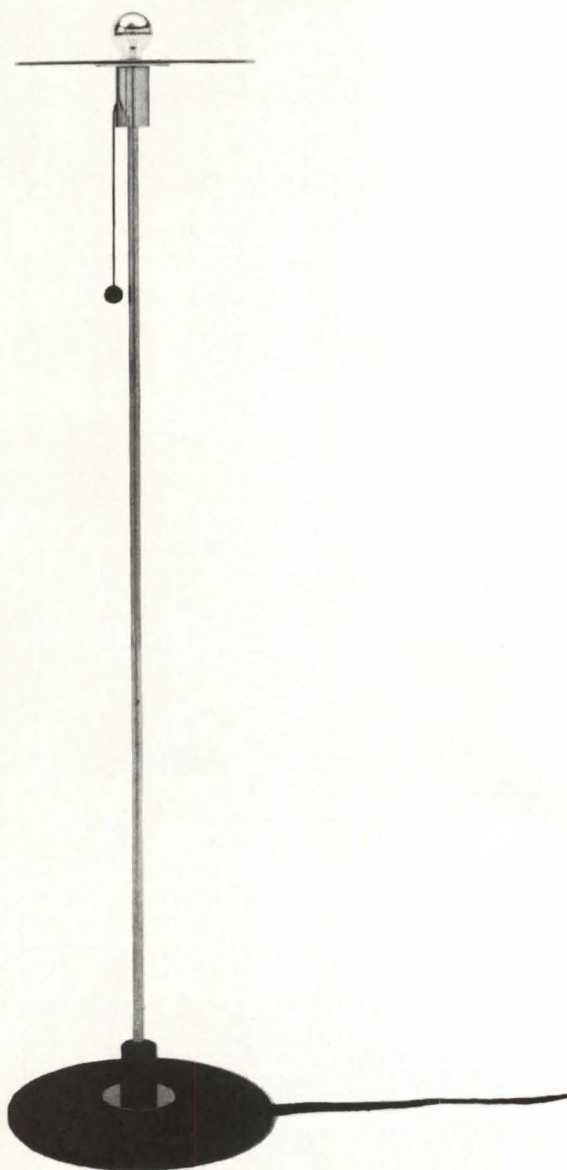
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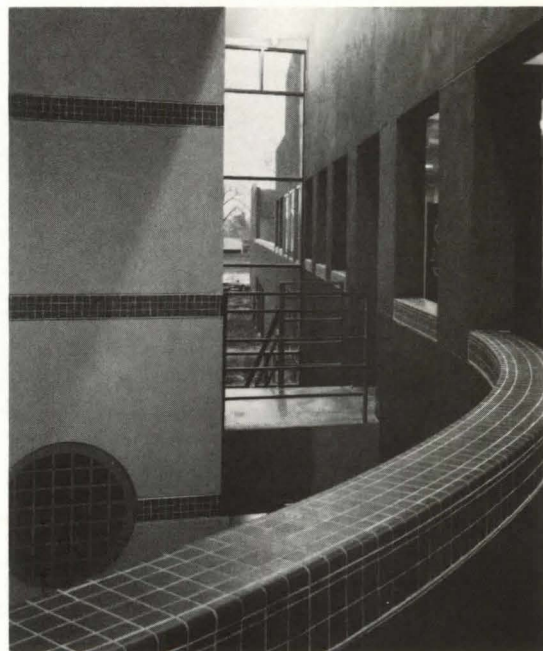
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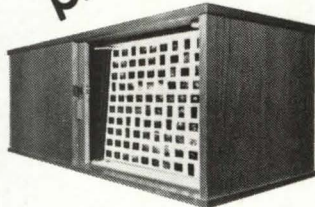
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- Amarlite Anaconda240, C-3
Cargill, Wilson & Acree, Inc.
- American Seating Co.72, 73
- American Telephone & Telegraph Co.182
N.W. Ayer, Inc.
- Arc Com Fabrics, Inc. 75
Pina Manzone
- Arconas Corp.224
- Artemide, Inc.112
Vignelli Associates
- Atelier International, Ltd.113
Stephen Kiviat Associates
- Azrock Industries, Inc.C-2
Bozell & Jacobs, Inc.
- Badische Corp.100
Millennium Design Communications, Inc.
- Ball Metal & Chemical 45
Charles Tombras Advertising, Inc.
- Bethlehem Steel Corp.32, 33
Van Brunt & Co.
- Bigelow-Sanford, Inc.119
AC&R Advertising, Inc.
- Bilco Co.217
Designline Studio
- Bobrick 58
- Bradley Corp.171
Stephan & Brady, Inc.
- Brickell Associates, Inc.66, 67
Donovan and Green
- Brueton Industries121
The Siesel Co., Inc.
- Buchtal USA210
Koepenick & Horne, Inc.
- California Redwood Association 43
Foot, Cone & Belding/Honig
- Canovas, Manuel 21
William B. Johns & Partners, Ltd.
- Carpenter, L.E. Co.126
The Siesel Co., Inc.
- Cincinnati Microwave227
- Cold Spring Granite Co.219
Kerker & Associates
- Collins & Aikman124
Collins & Aikman Advertising Group
- Columbus Coated Fabrics Div., Borden Chemical34, 35
Lord, Sullivan & Yoder, Inc.
- Comforto, Inc. 69
Fricke 3, Inc.
- Concept Group, Inc.222
- Construction Specialties, Inc.4, 5
Brian J. Ganton Productions, Inc.
- Covington Technologies172
Reeds and Farris
- Cumberland Woodcraft Co., Inc.211
Kenneth J. Thompson Advertising
- Dataprint235
Maury Flantzman Advertising
- Design Tex28, 29
Harry & Marion Zelenko, Inc.
- Dietzgen Corp. 52
Skillman, Inc.
- Donn Corp.173
Widerschein/Strandberg Associates
- Dover Corp., Elevator Div. 26
Caldwell/Bartlett/Wood
- Dryvit Systems40, 41
Fern/Hanaway, Inc.
- Dunbar 62
William B. Johns & Partners, Ltd.
Michael R. Abramson & Assoc., Graphic Designers
- duPont Co.—Antron76, 77
Batten, Barton, Durstine & Osborn, Inc.
- duPont Co.—Reemay Roofing Fabric130
N.W. Ayer, Inc.
- duPont Co.—TYVEK Housewrap222
N.W. Ayer, Inc.
- Elden Enterprises, Inc.235
Evelyn Associates
- Edwards Engineering Corp. 49
Seymour Charles Advertising, Inc.
- Ente Fiere Verona237
Publicitas Spa
- Faber-Castell Corp.181
Grant Marketing Communications, Inc.
- Fixtures Mfg. Corp.125
- Focal Point, Inc.235
Images, a Div. of Focal Point, Inc.
- Follansbee Steel Corp.189
Group Marketing & Communications, Inc.
- Ford Motor Co., Glass Div.8, 9
Wells, Rich, Greene/Detroit, Inc.
- Foremost Mfg. Co. 30
John H. Rosen Advertising, Inc.
- Forms & Surfaces 6
Sherrill Broudy Associates
- Four Seasons Solar Products Corp.209
Four Seasons Advertising
- Frankel Associates, Inc. 96
Hevia Marketing Communications
- GAF Corp.170
Scali, McCabe, Sloves, Inc.
- Gardco Lighting 31
David W. Evans, Inc.
- Georgia Granite Co. 47
Rawson & Co.
- GF Business Equipment123
Hitchcock-Fleming & Associates, Inc.
- Gold Bond Building Products, Div. of National Gypsum209, 211, 213
Faller, Klenk & Quinlan, Inc.
- Hauserman, E.F. Co.88, 89
William C. McDade, Inc.
- Haworth, Inc. 65
Haworth Advertising
- Helios Industries, Inc.203
Hisata Design Associates, Inc.
- Hertz Systems, Inc.231
- Hickman, W.P. Co.233
John H. Rosen Advertising, Inc.
- Holguin & Associates174
Emery Advertising
- Howe Furniture Corp.127
William B. Johns & Partners, Ltd.
- Howmet Aluminum Corp.205
Crume & Associates
- Hunter Douglas, Inc.196
The Siesel Co., Inc.
- ICF, Inc. 71
ICF Graphics, Inc.
- Inryco, Inc. 16
Melrose Advertising Associates
- Interface Flooring Systems128-129
Green & Burkhard
- International Linen Promotion Commission 39
- International Precious Metals Corp.230
- Jason Industrial 38
Rubber Assembly Center
- Jennison-Wright218
Fahlgren & Ferriss, Inc.
- JG Furniture Systems 93
Design Services
- Kardex Systems221
Hesselbart & Mitten, Inc.
- KDI Paragon, Inc.233
Lloyd S. Howard Associates, Inc.
- Keuffel & Esser Co.177
Dick Wayne Associates
- Kimball Office Furniture Co. 97
Keller Crescent Co.
- Knoll International78, 79, 117
Epstein, Raboy Advertising, Inc.
- Koch + Lowy, Inc.118
Ribaudo & Schaefer, Inc.
- Koh-I-Noor Rapidograph, Inc.178, 179
KR Advertising
- Koppers Co., Inc.17-20
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- Kountry Aire230
- Kroin Architectural Complements 42
- Krueger108
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- Lighting Associates, Inc.234
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The Bugdal Group
- Longlites 1
Hayes, Davidson, Inc.
- Lonseal, Inc.220
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- Manville Corp., Building Systems Div. 2
Broyles, Allebaugh & Davis, Inc.
- Marathon Carey-McFall Co. 22
Bozell & Jacobs, Inc.
- Merchandise Mart214
- Milliken Carpet 68
- Mobay Chemical Corp.52B, 52C
Creamer, Inc.
- Mohawk Carpet114
Bryant Press, Inc.
- Mondo Rubber Canada Ltd. 48
Publi-Com, Inc.
- Moore, Benjamin Co.201
Warwick, Welsh & Miller, Inc.
- Nemschoff Chairs, Inc.101
Jacobson Advertising
- Nevamar Corp. 54
Lord, Sullivan & Yoder, Inc.
- October Co., Inc.202
Roland Bibeau Associates, Inc.
- Ols (Holdings) Ltd.199
Hill and Knowlton Asia Ltd.
- Olympic Stain, Div. of Comerco, Inc.C-4
Kraft Smith
- Ozolid Corp.12, 13
D'Arcy-MacManus & Masius, Inc.
- Pace Collection111
Michael Chaves Advertising, Inc.
- Passive Solar Competition52A
- Peerless Electric Co. 1
Hayes, Davidson, Inc.
- Permagrain Products, Inc.131
Aitkin-Kynett Co., Inc.
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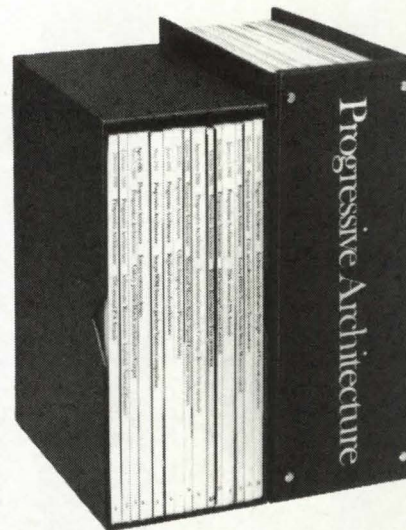
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Reading-Dorma Closer Corp.	217
Reeser & Sperling Advertising	
Rixson-Firemark Div.	208
The Delos Co., Ltd.	
Rose/Johnson, Inc.	81
Schoeppe Design & Communication	
Russwin Div. of Emhart Industries, Inc.	53
Creamer, Inc.	
R-Way	99
R-Way Advertising, Inc.	
Saddlebrook	228, 229
Scalamandre	120
Jeanne G. Weeks	
Schlage Lock Co.	212
B.J. Stewart Advertising	
Schumacher	84
Batten, Barton, Durstine & Osborn, Inc.	
Shakertown Corp.	61
Gerber Advertising	
Sico	42
Kerker & Associates	
Sierracin/TransTech	188
Woolf Advertising, Inc.	
Sigma Design	180
Martini & Droy	
Simplex Ceiling	213
Leschin Associates	
Soleil Div., ELR Inc.	36
Spec-Built	87
Steelcase, Inc.	106, 107
Aves Advertising, Inc.	
Steelite, Inc.	14, 15
Ketchum, MacLeod & Grove Pittsburgh	
Stendig International, Inc.	115
Allisam Productions	
Sterner Lighting Systems	51
Kerker & Associates	
Stevens, J.P.	82, 83
McKinney, Silver & Rockett	
Stolle Corp., Alpy Div.	57
Lord, Sullivan & Yoder, Inc.	
Sunar	85
Supreme Equipment & Systems Corp.	239
Chalk, Nissen, Hanft, Inc.	
Systems '82	175
Thonet	105
Thonet Advertising	
Tubular Specialties Mfg., Inc.	204
Kuklin & Associates	
United Airlines	226
Urban Systems	223
Nordstrom/Cox Marketing	
Viking Corp.	37
Addureau, Inc.	
Villeroy & Boch	11
William B. Johns & Partners, Ltd.	
Westin Hotel	232
Westinghouse Electric Corp., ASD 94, 95	
Marsteller, Inc.	
Wilson, Ralph Plastics Co.	132
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