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June 1983





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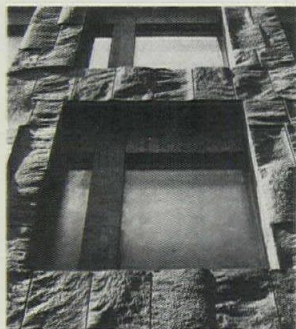
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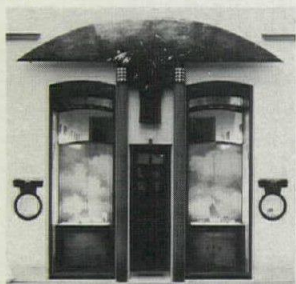
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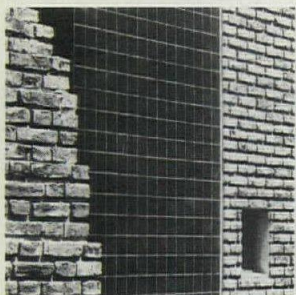
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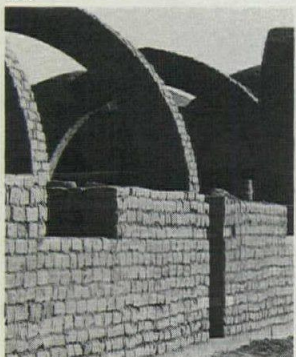
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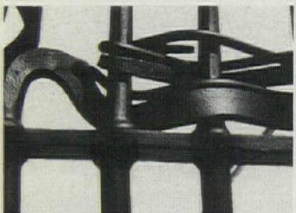
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**Cover:** Detail of stair tower and dome, *Urban Fragments*, Building 1, Buenos Aires (p. 80), by Agrest & Gandelsonas. Photo: Roberto Shezen with Leverato.

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# The architecture you touch

**When you are introduced to a new building, does it offer anything friendlier than a tubular steel handrail? Compared to some tactile encounters with architecture, that is cordial.**

In the visual arts, the term "tactile" is used to describe qualities of form and surface that *imply* sensations of touch, that suggest what we might feel if we could run our hands over the painting or sculpture. Tactile qualities, in that sense, must surely be considered in architecture, but buildings differ from most works of art in that you really do touch them. At crucial points in our experience of buildings, we find ourselves grasping door handles and handrails, leaning on counters, and perching on whatever surface the designers may have provided—intentionally or not—for sitting.

The way architects deal with doorpulls and handrails says a lot about their approach to the art. The pretentious ones put all of the effort in the large-scale form and show their lack of real sympathy for their public by treating handrails offhandedly. Those who are obsessed with form turn the handrail into something that fits brilliantly into the overall scheme, but not into our hands.

Among famous architects, Alvar Aalto immediately comes to mind as the master of the doorpull and the handrail. His famous double-decked doorpulls—a thoughtful accommodation to both tall and short users—are among many grippable varieties he used, some covered in leather or rattan. Aalto considered touch in larger architectural elements, as well; columns you have to pass are rounded, and your presence is acknowledged by treating the portion you might touch differently from the part above your head. His stairs are gracious and offer strong visual and tactile clues to make users more confident. The lobby of Finlandia Hall in Helsinki exhibits all these virtues and considerably adds little elbow-high tables for those who stand and chat over coffee or drinks.

But even Aalto was not blameless in his choice of textures; the interiors of his Baker House dorms at MIT of 1949, where I lived for four years, had too much coarse brick and large-scaled hollow tile within reach. (There were audibility problems, too; the exposed piping that descended through the lobby-lounge was neatly clad to form slender white cylinders, but when you heard a sudden whoosh from that cylinder, you were reminded too vividly of what was inside.)

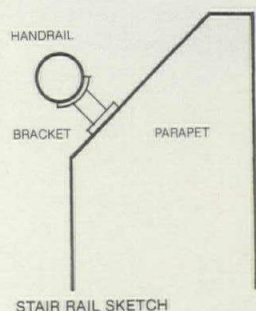
Baker House was one precursor of the Brutalism that was to come in the 1960s, when we had to rub shoulders with rough concrete in every urban renewal achievement. I recall one 1970s hotel in Atlanta where the architects ran hefty concrete columns up through a multistoried lobby, then lost control to a decorator who *gilded* the concrete. The gilding was only part of a remarkably gaudy scheme, but it commented sardonically on the rugged interior concrete then so loved by architects—and, I suspect, almost nobody else.

Returning to the subject of things you have to touch, I can recall other notable handrails. There is the broad wood rail around the mezzanine of TAC's AIA Headquarters in Washington, waist high and wide enough to accommodate plates at lunches and receptions—with a substantial rim that prevents accidental spills to the floor below. (Too bad the building isn't otherwise memorable for inspired detailing.) I recall, too, the stairs in the exhibit halls of HOK's Air and Space Museum in Washington; the projecting stair landings are good viewing platforms for the suspended aircraft, but tubular metal railings that crank around these landings in a series of 45-degree, mitered angles emphasize the awesome gap between the aerodynamic forms all around and what often passes for sleek detailing among architects. One place notable for its sheer absence of a handrail is the edge of the parapet that spirals up through Wright's Guggenheim Museum; not only does the parapet lean out into the central void at an unsettling angle, but it lacks handrail or even coping; you can, in fact, hold the curved rim to steady yourself, but neither its appearance nor its feel invites you to. Wright must have known this, and intended the parapet as an abstract form, not as a device for visitors to lean on.

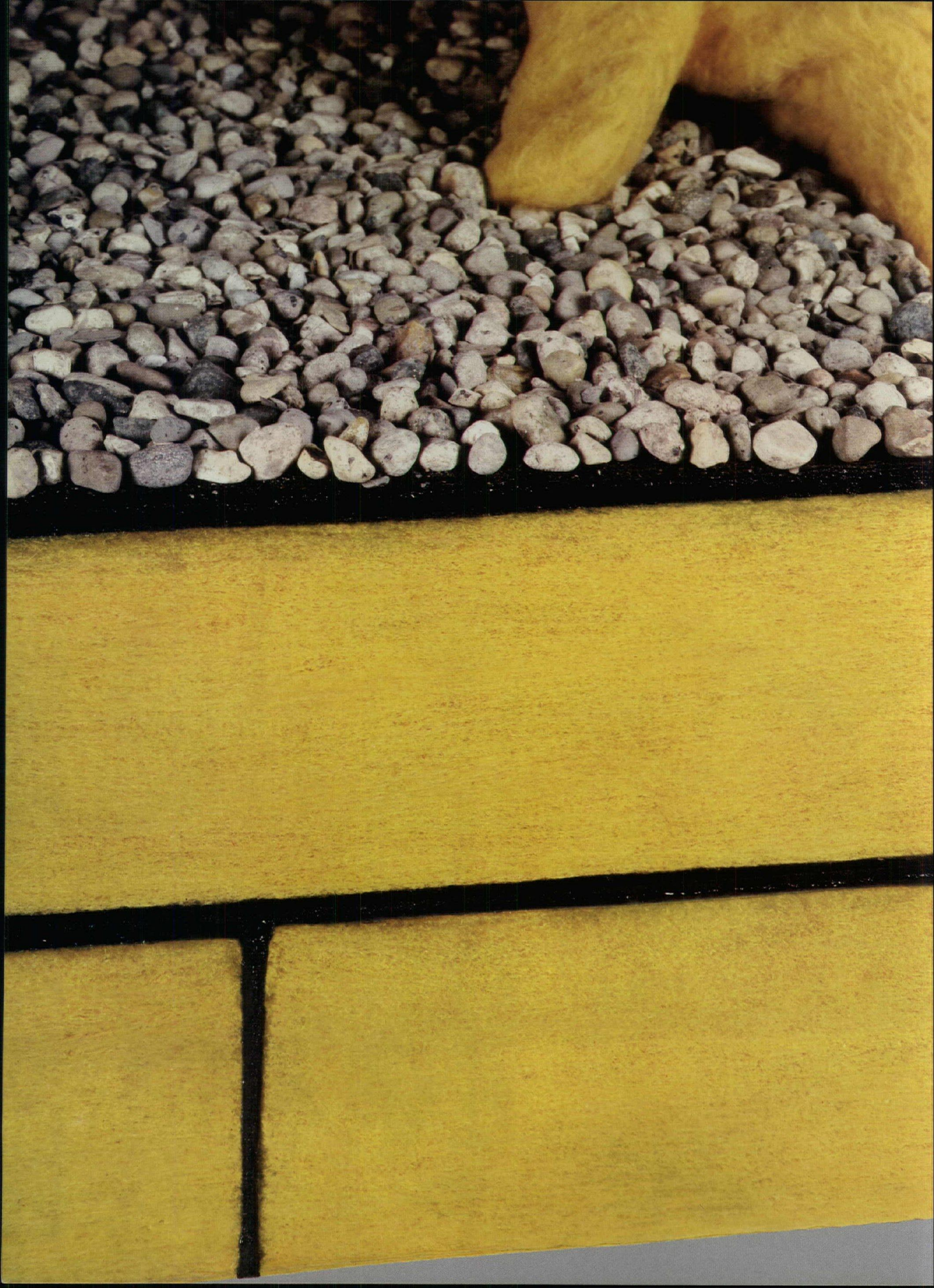
At the unfriendliest end of the handrail spectrum is one in a library that I use occasionally. Designed a few years ago for the grand stair between the building's two main levels, the rail is easy to grasp, but if you run your hand along it, you get an unpleasant surprise, every three steps or so, from its angular brackets (sketch, left). By simply turning these supports 45 degrees to the vertical (for who knows what design purpose), the architects have created a finger-crunching problem.

Architects are often urged to take an imaginary walk through a project to test its practicality and aesthetic impact in use—and computer graphics is now ready to add objective substance to that imaginary tour. I wish more architects would imagine groping their way through a project as well, with detail drawings in hand and some real empathy with users. The resulting work might have a friendlier feeling.

*John Morris Diefen*









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# Views

## Frank Lloyd fragments

Your review of the reconstructed Little House living room (P/A, March 1983, p. 35) and the adjunct show left me both puzzled and outraged. In recent years the Met and other museums have pursued an aggressive acquisition policy regarding Frank Lloyd Wright designed furniture, windows and related items. So much so that unscrupulous owners and art dealers have now found a high-paying market for components of houses still standing. As museums compete for these items, the price of these "stolen goods" rises even higher. A vicious circle is created, as other unsympathetic or financially strapped owners of Wright homes are swayed into removing furnishings by the high prices they will bring. Acquisition policies of this type can only result in the destruction of architectural environments which can only be fully understood and appreciated in their entirety. When removed from their context, the individual pieces lose their meaning and the house suffers greatly from their loss. We should be thankful that the Met has reconstructed the Little House living room to its original condition and at the same time rejoice in knowing that they have so few items to otherwise display!

*John A. Eifler, Architect, Chicago, Ill.*

[The review was not intended to promote the plundering of Wright homes (Pencil points, p. 48), but to point out the short shrift Wright has received until recently from established institutions like the Met. Proper recognition may in fact stir support for preserving the remaining homes intact.—Editors]

## Canada short list correction

The name of Eberhard Zeidler was inadvertently omitted from the short list of architects being considered for the National Gallery of Canada and the National Museum of Man (P/A, March 1983, p. 58).

## Museum responsibilities

We were very pleased to see your review of the Indiana University Art Museum (*Progressive Architecture*, January 1983). There is one matter in the review of the building which requires clarification. The design of the Exhibition environments was conceived and executed by the Director and the Museum staff, and is not part of the design conception of I.M. Pei and Partners.

*Thomas T. Solley, Director  
Indiana University Art Museum  
Bloomington, Ind.*

## NEA support for P/A winners

Of the winners in the 30th P/A Awards competition (Jan. 1983 issue), a total of four were supported by grants from the National Endowment for the Arts. NEA funding was acknowledged in two cases:

the study of competitions by Witzling and Farmer; the theater facility study by Beckley/Myers. The two other winning projects that benefited from NEA grants were the Venice InterArts Center by Studio Works and the study of historical patterns of urban architecture by Anne Vernez-Moudon.

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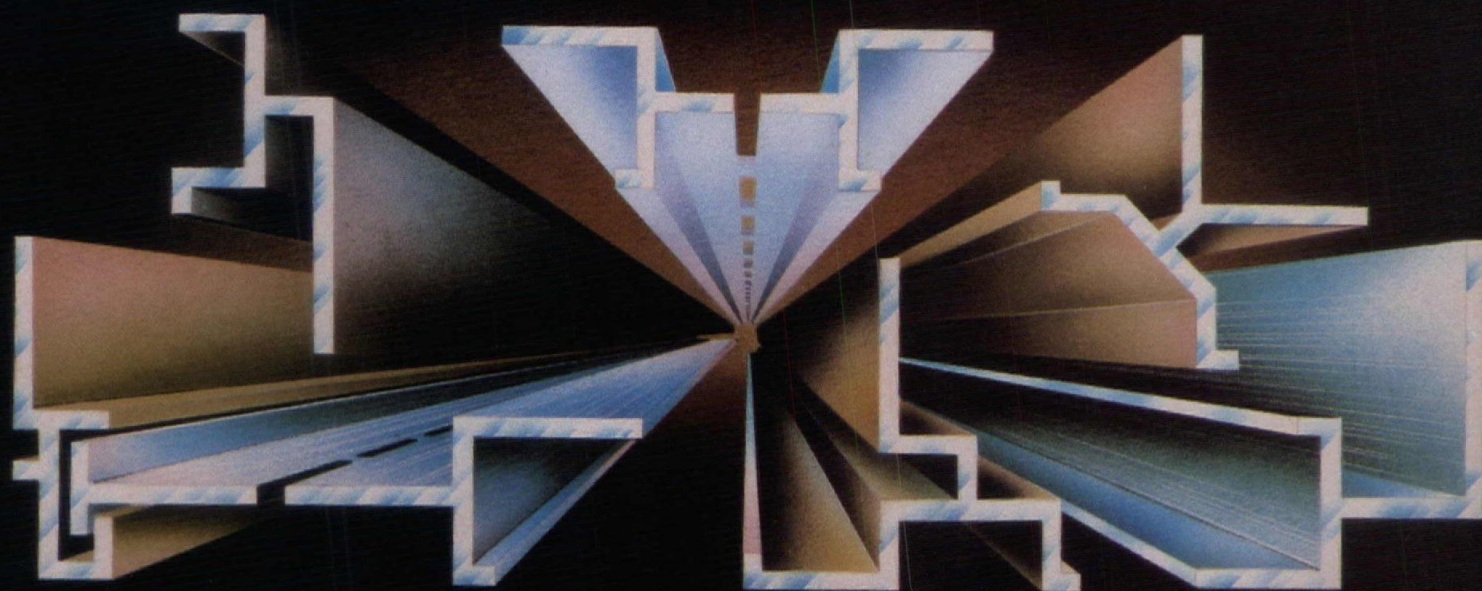
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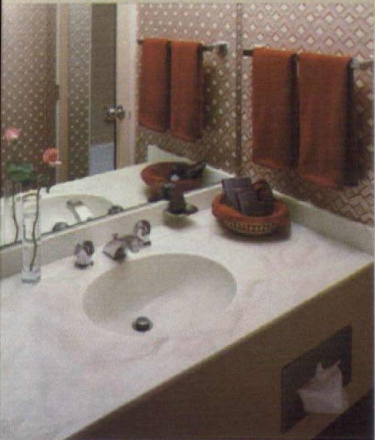
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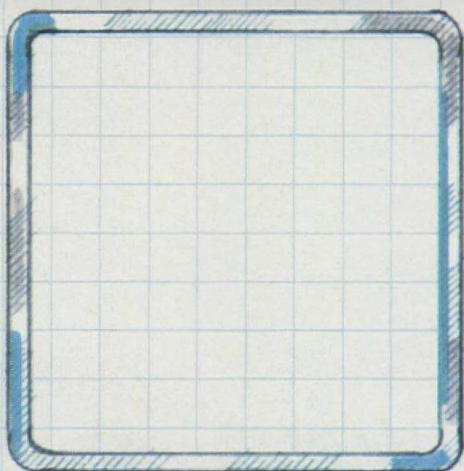
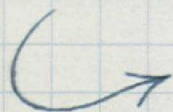
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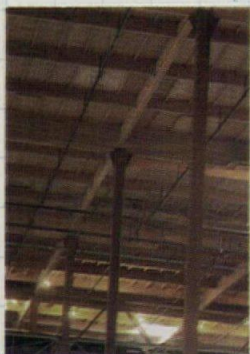
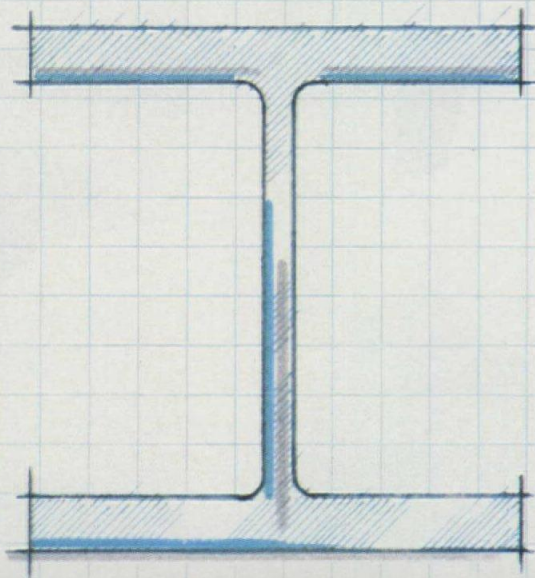


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Progressive Architecture announces its 31st annual P/A Awards program. The purpose of this competition is to recognize and encourage outstanding work in architecture and related environmental design fields before it is executed. **Submissions** are invited in the three general categories of architectural design, urban design and planning, and applied architectural research. Designations of **first award**, **award**, and **citation** may be made by the invited jury, based on overall excellence and advances in the art.

**Jury for the 31st P/A Awards**

*Architectural design:* **Sam Davis**, AIA, architect, Associate Professor of Architecture, University of California, Berkeley; **James Stewart Polshek**, FAIA, James Stewart Polshek & Partners, New York, and Dean of the faculty of the Columbia Graduate School of Architecture and Planning; **Julia Thomas**, President, Bobrow/Thomas & Associates, Los Angeles, and Chairman of the Board, Westport Centers, Inc.; **O.M. Ungers**, architect, Cologne and Frankfurt, West Germany, and Professor of Architecture, Cornell University, Ithaca, NY. *Urban design and planning:* **Roger Schluntz**, AIA, Chairman, Department of Architecture, Arizona State University, Tempe; **J. Michael Kirkland**, architect, Principal of J. Michael Kirkland, Architect, and of Coombes, Kirkland, Berridge, Urban Design, Toronto, and Professor of Architecture, University of Toronto. *Research:* **John Cable**, AIA, John Cable Associates, Alexandria, Va., formerly Director, Buildings Division, Office of Buildings and Community Systems, U.S. Department of Energy; **Jonathan King**, Hon. AIA, Professor of Architecture and Director of the Architectural Research Laboratory, University of Michigan College of Architecture, Ann Arbor.

**Judging** will take place in Stamford, Conn., during September 1983. Winners will be notified — confidentially — before Oct. 1. First public announcement of the winners will be made at a presentation ceremony in New York in January 1984, and winning entries will be featured in the January 1984 P/A. Recognition will be extended to clients, as well as professionals responsible. P/A will arrange for coverage of winning entries in national and local press.

**Eligibility**

1 Architects and other environmental design professionals practicing in the U.S. or Canada may enter one or more submissions. Proposals may be for any location, but work must have been directed and substantially executed in U.S. and or Canadian offices.

2 All entries must have been commissioned, for compensation, by a client. In the case of architectural design and urban design/planning entries, clients must have the authority and intention to execute the proposals. Work initiated to fulfill academic requirements is *not* eligible (but teams may include students).

3 Prior publication does not affect eligibility.

4 Architectural design entries may include

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31st annual competition  
for projects not yet completed

in  
architecture  
planning  
and  
research

Deadline for submissions: August 31, 1983



only buildings or complexes, new or remodeled, scheduled to be under any phase of construction during 1984.  
5 Urban design and planning entries may include only proposals or reports accepted by the client for implementation before the end of 1984. Feasibility and implementation strategy should be documented.

6 Research entries may include only reports accepted by the client for implementation before the end of 1984. Submissions should yield information applicable beyond a single project. Research methodology and ways of disseminating findings should be documented.  
7 The jury's decision to premiate any

submission will be contingent on verification by P/A that it meets all eligibility requirements. For this purpose, clients of all entries selected for recognition will be contacted by P/A.

#### Publication agreement

8 If the submission should win, the entrant agrees to make available further graphic material as needed by P/A.  
9 In the case of architectural design entries, the entrant agrees to give P/A the first opportunity among architectural magazines for feature publication of any winning project upon completion.

## Entry form: 31st P/A Awards Program

Please fill out all parts and submit, intact, with each entry (see paragraph 13 of instructions). Copies of this form may be used.

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#### Submission requirements

10 Each submission must be *firmly bound* in a binder no greater than 17" in either dimension. Binders 9" x 11" are preferred. No fold-out sheets.

11 Submissions must include illustrations and drawings necessary to a full understanding of the proposal — all legibly reproduced. P/A assumes no liability for original drawings. No actual models or slides will be accepted. P/A intends to return submissions intact, but can assume no liability for loss or damage.

12 Each submission *must include* a one-page synopsis, in English, on the first page inside the binder, summarizing the intent and principal features of the entry.

13 Each submission must be accompanied by a signed entry form, to be found on this page. Reproductions of this form are acceptable. All four sections of the form must be filled out, *legibly*. Insert entire form, intact, into *unsealed* envelope attached inside back cover of submission.

14 For purposes of jury procedure only, please identify each entry as one of the following: *Education, Housing (Single-family), Housing (Multiple-unit), Commercial, Industrial, Governmental, Cultural, Recreational, Religious, Health, Planning and/or Urban Design, Applied Research*. Mixed-use entries should be classified by the larger function. If unable to classify, enter *Miscellaneous*.

15 Entry fee of \$50 must accompany each submission, inserted into *unsealed* envelope containing entry form (see 13 above). Make check or money order (no cash, please) payable to *Progressive Architecture*.

16 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Credits may be concealed by any simple means. Identity and location of projects should *not* be concealed. P/A will seal stub of entry form in envelope before judging.

17 Deadline for sending entries is August 31. First class mail or other prompt methods of delivery are acceptable. Entries must show postmark or other evidence of being en route by midnight, August 31. Hand-delivered entries must be received at street address shown here by 5 p.m., August 31.

#### Address entries to:

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Progressive Architecture  
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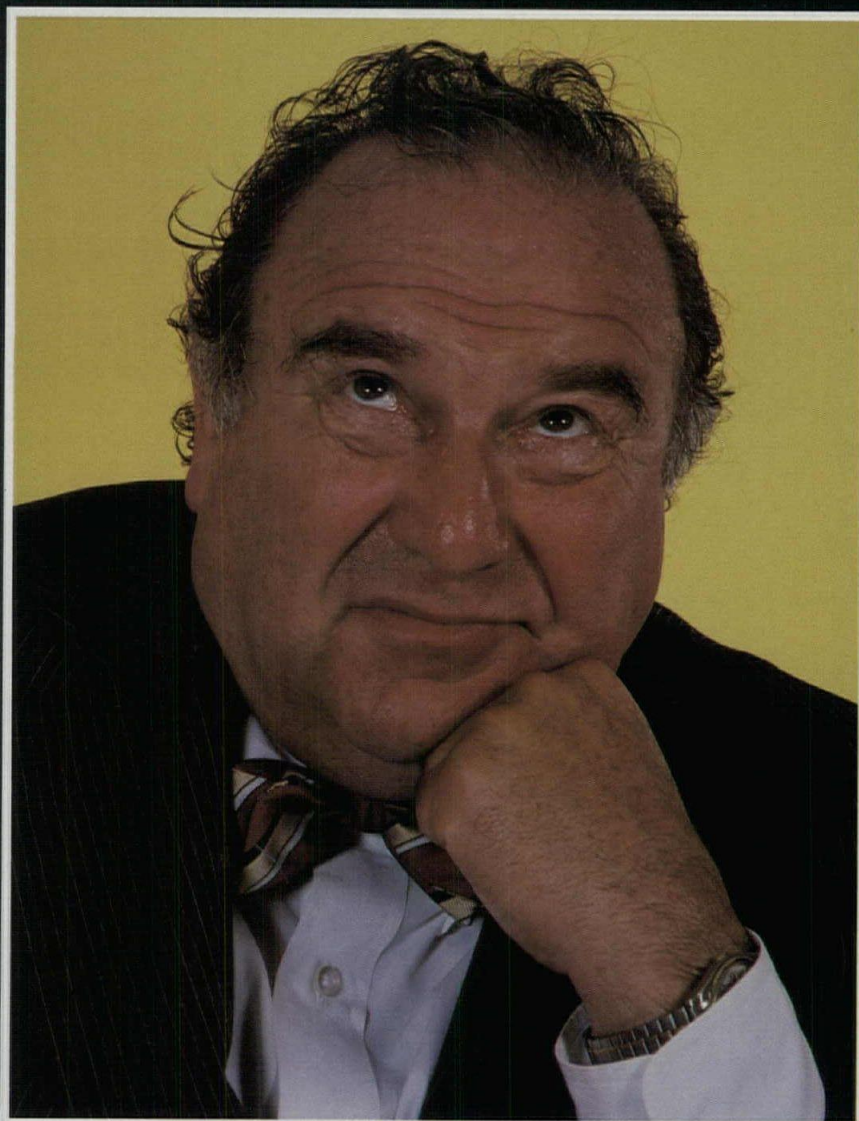
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# CHARLIE'S ROASTING



Actually, Charlie roasts every sunny afternoon. In fact, during July and August he's well done at about 5:00 P.M.

You see, Charlie's desk is next to a south facing window-wall in a nifty, new office building in Virginia. The architect's idea of collecting passive solar energy was great last winter. But this summer Charlie needs help and neither the building's air conditioning nor solar tint glazing are quite up to the task. Sure he could close the blinds. But Mildred over in accounting would complain that she couldn't see the Blue Ridge Mountains just over his left shoulder. And Agnes in sales service would say she can't work in the dark.

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## Pencil points

### Pritzker winner

The fifth annual Pritzker Prize (the architecture world's Nobel) has been awarded to Ieoh Ming Pei (details next month).

### Brunner Prize

The 1983 Arnold Brunner Memorial Prize in Architecture has been awarded to Frank Gehry.

### What Biscayne Bay needs now

Artist Christo, who has run 24 miles of "Running Fence" across California, who was denied permission to install thousands of banners in New York's Central Park, and whose plans include wrapping the Reichstag in Berlin and the Pont Neuf in Paris, wrapped 11 islands in Biscayne Bay in six million square feet of shocking pink plastic.

¶ Despite protests by environmentalists, Christo was granted all the necessary permits. The project, which remained in place for two weeks, carries a \$3.1 million price tag.

Venturi, Rauch & Scott Brown museum Austin, Texas, will have a new downtown museum designed by Venturi, Rauch & Scott Brown. The Laguna Gloria Art Museum, part of a mixed-use, multiblock development, is to be built on land donated by Watson-Casey Companies.

### Statue of Liberty centennial

Extensive renovation of the Statue of Liberty will begin in late 1983 and will be completed by July 1986, in time for her one-hundredth birthday.

¶ The interior of the Statue will be sandblasted to remove old paint and to inspect all elements of the structural system. The copper exterior skin will be cleaned and repaired.

¶ The Great Hall of Ellis Island will be restored by 1986 as well, and remaining Ellis Island structures will also be rehabilitated. That island, gateway to the U.S. for immigrants for decades, will be celebrating its centennial in 1992.

### SOM Awards

Sheila Kennedy (Harvard University) and Robert McCarter (Columbia University) are the recipients of the 1983 Skidmore, Owings & Merrill Foundation Travelling Fellowships. Each will receive \$10,000 for nine months of travel and study.

¶ In addition, the first annual Fazlur Rahman Khan International Fellowship for Structural Engineering has been awarded to Werner Sobek of Stuttgart, West Germany. Administered by the SOM Foundation, the Khan memorial fund provides \$7500 for five months of travel and study.

### Mission accomplished

The constitutional proviso for the separation of church and state has long stood in the way of assuring a future for San Antonio's group of 18th-Century missions (P/A, Nov. 1979).

[Pencil points continued on page 48]

## PA News report

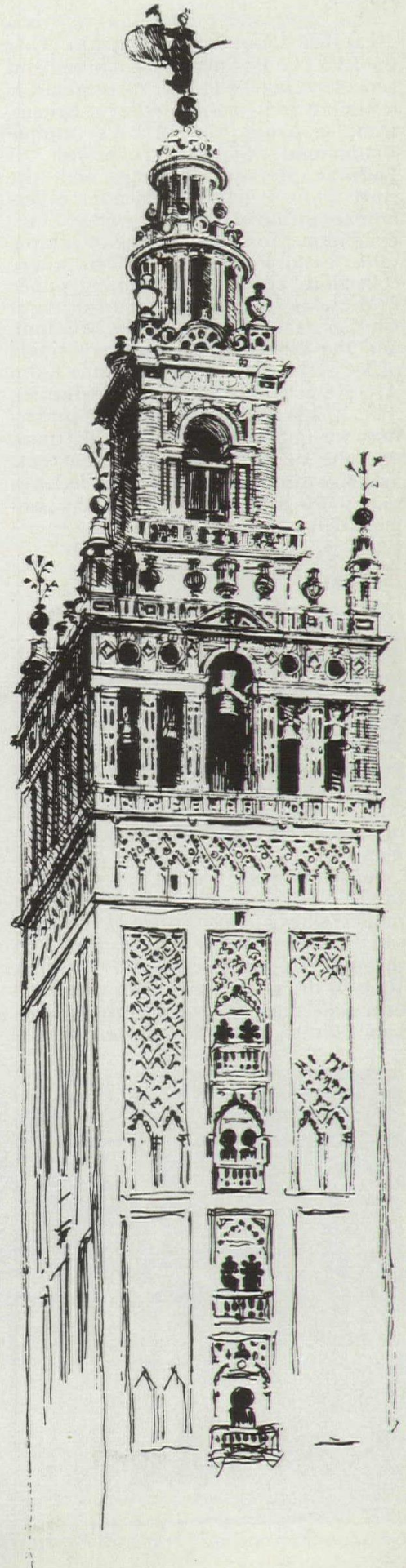
### Art and architecture: the RIBA's great drawings

Chief among the events accompanying this spring's "Great Britain Salutes New York" celebration is a show at the Drawing Center in SoHo entitled "Great Drawings from the Collection of the Royal Institute of British Architects" (through July 30). Curator John Harris with assistants Jill Lever and Margaret Richardson of the RIBA have varied their selections of works by such well-known Brits as Inigo Jones, Sir George Gilbert Scott, and Sir Edwin Lutyens with the occasional "exotic" by F.L. Wright, Peter Behrens, Mies van der Rohe, and others.

Documenting changes in drawing techniques over time, the show also outlines the cycle of styles from the simple, medieval design for a tower with turrets (Late 15th Century) through the Neoclassical bombast of Boullée's Metropolitan Cathedral (1782) to the medievalizing arts and crafts of Burges' design for the church of St. Mary, Aldford-cum-Studley (1872), and beyond. The show's centerpiece is an immense (36¼" x 76¼") rendering of Sir John Paxton's Crystal Palace, a fantasy expressive of an age's aspirations and its accomplishments. Today's high tech artists—Richard Rogers, James Stirling, and Norman Foster—form the grand finale.

A compact and complete catalog (published by Trefoil Books, 136 pp., 150 illus., \$15) offers interesting insights into the relationship of drawing to architecture. "Great architects by no means draw well," writes John Harris,

A.N. Prentice (1866–1941), Sketch of the Giralda Tower, Seville, Spain, 1889.





his observation borne out by the crude drawings of Christopher Wren. Nor do drawings always represent the reality of a space, as is surely the case for the abstract axonometrics of Stirling and Rogers.

The show and catalog also tell us a great deal about connoisseurship. That the RIBA could amass such a broad and representative collection of originals is testimony to its stature in Great Britain. Samples from the RIBA's unique Drummond Stewart collection of Baroque theater drawings and the Burlington-Devonshire Palladio collection are included in the Drawing Center exhibition. No single archive of comparable breadth exists in the U.S., where collections are scattered among public institutions such as the Art Institute of Chicago, the Cooper-Hewitt Museum, and the Library of Congress or single office archives (such as the Louis Kahn Archive at University of Pennsylvania). The RIBA show in New York underlines the importance of such collections, and the need to make their contents available through exhibits and lectures to both the professional and the lay public. [DDB]

## Art and architecture: the building of the Vatican

The Vatican's arts treasures can travel, however gingerly; the architecture obviously cannot. The Metropolitan Museum of Art's blockbuster show "The Papacy and the Arts" offers ample evidence of papal patronage of the visual arts. But it remains the task of drawings and etchings to suggest the magnitude of the popes' architectural accomplishments.

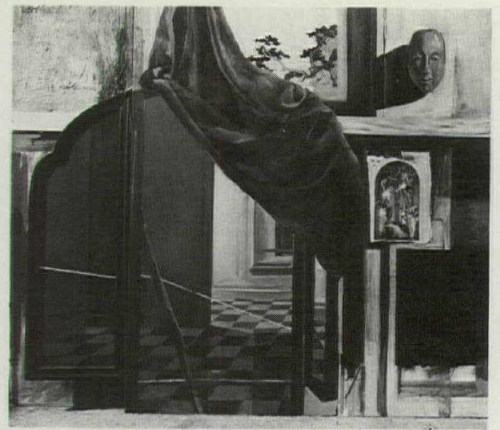
Accompanying the art extravaganza for its New York appearance is a more modest show, "Architecture of the Vatican: Projects and Views of the 16th through the 18th Centuries" (through June 5) drawn entirely from the Met's own collection. A special Museum *Bulletin* (Winter, 1982-83) written by Su-

zanne Boorsch, assistant curator in the Department of Prints and Photographs, fills out historical background.

As the drawings themselves prove, none of the four principal architects of the Vatican—Bramante, Michelangelo, Maderno, and Bernini—saw his scheme carried through to completion. The piecemeal building process was subject to the whims of successive papal leaders and their chosen architects, who on more than one occasion tore down what a predecessor had built. Thus Michelangelo could write of Antonio da Sangallo's design for St. Peter's: "He, with that outer ambulatory of his, in the first place takes away all the light from Bramante's plan, and not only this, but does so when it has no light of its own, and so many dark, lurking places above and below that they afford ample opportunity for innumerable rascalities, such as the hiding of exiles, the coining of base money, the raping of nuns . . . and order the ambulatory demolished."

The show's earliest sketches were drawn to record old St. Peter's, torn down in the 16/17th Centuries to make way for a new structure whose size and scale would embody the powerful institution the Church had become. Later works commemorate extravagant events such as the transporting of the obelisk in 1586. A flourishing tourist trade in the 18th and 19th Centuries prompted the reproduction of souvenir views, appropriately exaggerated and embellished, from works by artists such as Piranesi and Panini. Conventional architectural drawings—plans, elevations, and sections—document the building process throughout; notable among these are the etchings by Etienne Duperac of St. Peter's, although the design they depict, long assumed to be Michelangelo's, contains elements added by Vignola.

While the bulk of the drawings describe the church, the collection also outlines the building of the Cortile di Belvedere, the Apostolic Palace, and—in the most fanciful views—the Vatican gardens. Unfortunately, as the Vatican treasures travel to Chicago and San Francisco, this collection, documenting an important aspect of papal patronage, will remain behind. [DDB]



Tom McNulty, "Interior with Deposition," oil on canvas, 1982.

## Art and architecture: contemporary parallels

New York today brings to mind Paris of the 1920s. Then as now, the arts overlap—innovations in one discipline spark change in another. A number of recent exhibitions in the galleries of SoHo indicate that contemporary artists, like their architect counterparts, are drawing on the past for both subject and technique.

Two trends in the art world are particularly sympathetic to developments in architecture. First, the pop-historicism of artists such as Julian Schnabel parallels the ironic, grab-bag approach to history evident in the work of Robert Venturi and Charles Moore. Painters Tom McNulty and Milo Reice, together with sculptor Ned Smyth, reflect the spirit of a second group: those who look on art of the past with greater reverence. Like the Neorationalists, these artists turn to the models of Italian Rationalism and of the Renaissance for forms they consider archetypal. Co-opting Renaissance types, they also exploit traditional techniques: McNulty employing classical draftsmanship, Reice fresco, and Smyth mosaics.

Schnabel's paintings, shown at the Leo Castelli Gallery (April 2-23), combine hallowed images (St. Francis) with "low art" materials (refuse, smashed plates) painted with a scrawled graffiti hand. Just as Venturi plays with the traditional column form, flattening it to a billboard (in the 1980 façade for the Venice Biennale) or blowing it up to a distorted cartoon (Oberlin Art Gallery addition), so Schnabel inverts historical subjects, quoting specific sources (such as Renaissance portraits of the saints) in an unexpected and modern manner.

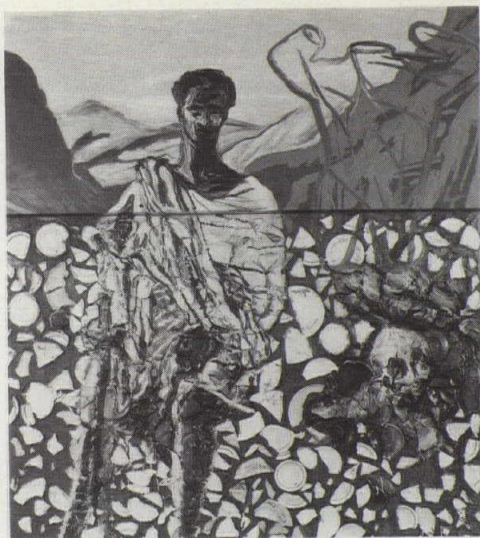
Milo Reice's installation for the opening of the Serra di Felice Gallery (April 23-May 21) in the newly restored Puck building also uses religious imagery. But Reice works at one remove from his subject. Like the architect Aldo Rossi, whose arcades and arches evoke archetypal forms in modern materials, so Reice paints "religious" scenes that pay homage to Raphael rather than Christ. The unity of form and content that characterized the work of Renaissance artists has been replaced by a self-consciously art-historical approach.



Giovanni Ottaviani after Francesco Panini, *The Scala Regia*, 1765.

Collection of the Metropolitan Museum of Art





Julian Schnabel, "St. Francis in Ecstasy," oil, plates/wood on canvas, 1980. Collection of Mary Boone.

The architectural qualities of Reice's wall frescoes must be considered more general trend than isolated incident. As architects have focused more attention on the art of architecture, so artists such as McNulty and Smyth use architecture to structure their art. Paintings and drawings by McNulty, shown at the 25 Washington Square Gallery (March 9-25), recall Vermeer interiors, setting objects within a rigorously architectural framework. Smyth's works, shown at the Holly Solomon Gallery (Dec. 4-29, 1982), apply mythical, Michelangel-esque figures in tile to stylized Romanesque columns and wall panels. Other Smyth works are still more literally architectural: he has designed a courtyard for the Prudential Life Insurance Building in Westlake, Calif.

These parallel interests suggest a community of spirit reminiscent not only of 1920s Paris but of the Renaissance period itself, subject of so much contemporary thought and practice. Whether or not the work of contemporary artists and architects is evidence of a new renaissance remains to be proven. [Claudia Hart]

Claudia Hart holds an M.S. in Historic Preservation from Columbia University.

## Castletown appeal

Castletown, the great 18th-Century Irish house in County Kildare, is in serious financial trouble. Built for William Conolly, Speaker of the Irish House of Commons, by Italian architect Alessandro Galilei and Sir Edward Lovett Pearce in the 1720s, it has been, since 1967, the home of the Irish Georgian Society. The house is now owned and run by the Castletown Foundation, which must raise \$1 million over the next seven years to make major repairs, endow a maintenance fund, and secure the house's original furnishings. A \$100,000 gift from the Kress Foundation is contingent upon the receipt of matching funds from other sources. For details, write the Secretary, Castletown Foundation, Castletown House, Celbridge, County Kildare, Ireland. [PV]

## Josep Lluís Sert: 1902-1983

Josep Lluís Sert, the noted architect, urbanist, and former Dean of the Harvard Graduate School of Design, died on March 15, 1983, in Barcelona, Spain, in his 81st year.

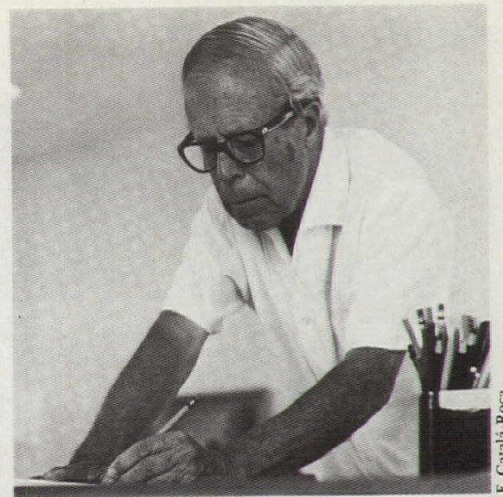
Sert started his career as a painter, following the path of his uncle, Jose Maria Sert. Some of his closest friends were artists, including Picasso, Bracque, Miró, and Calder, and he assembled a splendid art collection over the course of his lifetime, which he donated to Harvard University. Given Sert's lifelong interest in art, it is hardly surprising that among his many buildings are two noted museums, the Fondation Maeght at Saint-Paul-de-Vence and the Miró Museum in Barcelona.

The first building by Sert that I experienced personally was the Spanish Pavilion at the Paris World's Fair of 1937. This building, a simple, rational, and yet poetic structure, stood out among projects by Le Corbusier, Alvar Aalto, and Matthew Nowicki. Its generous entry hall was flanked by a sheltered outdoor space, developed around a magnificent old tree which pierced an enormous canvas roof. The building incorporated significant works of art, including the famous "Guernica" by Pablo Picasso and the mercury fountain by Alexander Calder. This early work demonstrated Sert's concern for the integration of architecture with the surrounding environment and with works of art.

Sert shared an interest in town planning and design with his early mentor Le Corbusier, whom he met at the age of 25 while still a student, and for whom he briefly worked. Sert served as president of CIAM, which was founded by Corbusier, from 1947 to 1956, and it is from this period that his seminal publication "Can Our Cities Survive? An ABC of Urban Problems, their Analysis, their Solutions" dates. His practice in America (Sert left Fascist Spain for the United States in 1939) reflected this strong emphasis on urbanism: he developed master plans for eight major South and Central American cities, including Havana, Bogota, and Lima.

In 1953 Sert became Dean of the Harvard Graduate School of Design and persuaded Harvard to select Le Corbusier as architect for the Carpenter Center, the only building by the master architect in the Americas. As Dean at Harvard, he founded in 1959 the first urban design program in the United States (the author served as the program's first director).

Many of Sert's innovations and accomplishments are now taken for granted; thus the AIA Gold Medal citation is indeed appropriately worded: "So influential and far-reaching is the work of Josep Lluís Sert, that the social



F. Catalá-Roca



c. Ediciones Poligráfica, S.A.

Josep Lluís Sert; Joan Miró studio, Majorca, 1958-1959.

awareness and concepts of artistic collaboration, that he brought to the practice of architecture, have become almost commonplace." Of Sert's many buildings at Harvard, the two most significant are the Peabody Terrace married students housing, notable for its masterful integration of high-rise buildings into an area of low structures and for its handling of private, public, and semipublic spaces, and his own house, conceived as the basic unit in a possible scheme of carpet housing, one which could be extended at any time, while preserving privacy and human scale.

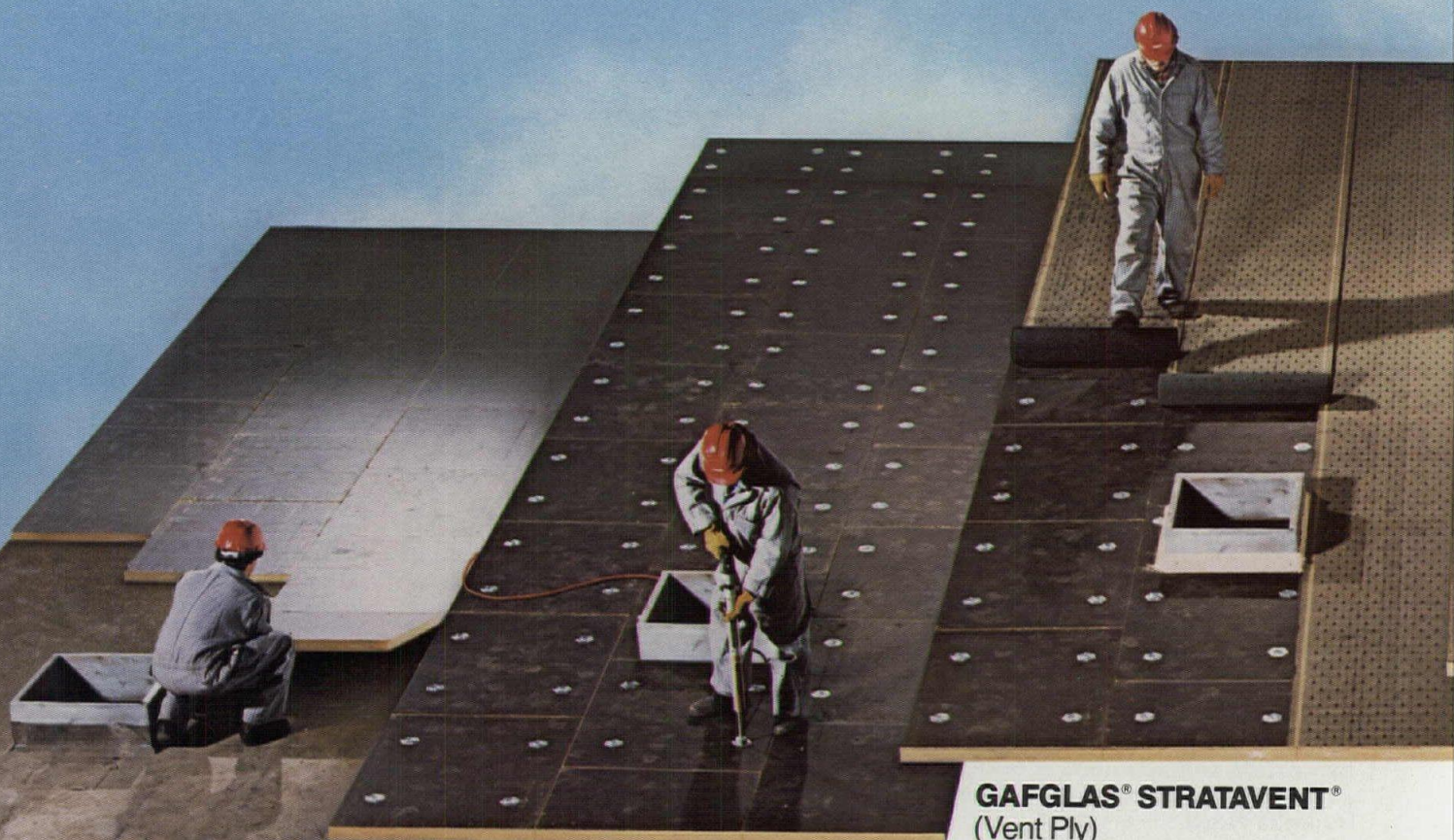
A few months ago, Sert and I met by chance after mass at St. Paul's Church in Cambridge. He started to talk passionately, ignoring the cold and windy weather, and urged me to join him for discussions about the dismal development of our cities and the condition of architecture. He deplored the monotony of Modern architecture as well as the excesses of Post-Modernism. A generous and highly cultured individual by nature, one who never raised his voice, Sert remained a passionate fighter for his ideals. [Willo von Moltke]

Willo von Moltke is Professor of Urban Design, Emeritus, Graduate School of Design, Harvard University.

[News report continued on page 30]



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## American architecture: the Buell Center symposium

Just what the new Buell Center for the Study of American Architecture at Columbia University (P/A, March 1983, p. 41) can or should be was the subject of much discussion at its first sold-out symposium (April 21-24). More than one speaker took advantage of podium time to promote a particular topic that the Center "must" engage.

But the symposium's stated agenda lay elsewhere. The broad topic of "American Architecture: Innovation and Tradition" was broken down into three open-ended categories of "Object," "Building," and "Place." A fourth category, "The Profession," followed to fill what Denise Scott Brown dubbed the "lead balloon" function, dragging high-flying theorists back down to earth. The symposium was accompanied by an exhibit on architecture in six American regions; all papers and proceedings are to be published.

Philosopher-king Vincent Scully, in his keynote address, swept from the pueblos of New Mexico to the Mall in Washington, D.C., locating the essence of American architecture in our Pre-Columbian, Colonial, Classical, and realist traditions. Typical of the encyclopedists, on the other hand, was John Coolidge's detailed account of three American places—L'Enfant's Washington, Olmsted's Riverside community outside Chicago, and Frank Lloyd Wright's Florida Southern College.

Among the weekend's highlights were two exemplary papers delivered in the "Building" session, each offering a revisionist's version of its subject. Thus James O'Gorman sought to prove that Richardson had been influenced not only by European examples (the Pitti Palace, etc.), as is the conventional wisdom, but also by American landscape and indigenous New England architecture. So too Donald Hoffman represented the "facts" to prove the Chicago School was not rational but romantic: the Monadnock building, for example, shaped as much by aesthetic intentions as by the desire to fully express its structure.

Faculty respondents filled an important function, reminding the colloquium of omitted American architects such as Louis Kahn (Kenneth Frampton) and omitted issues such as low-income housing and public policy (Max Bond). But Susana Torre's comments, read early in the symposium and directed specifically towards the "Object" papers, suggested the most telling judgment of this first Buell Center event. Citing the need to describe the limits of discourse for the object, she might well have been addressing the need for just such limitations in the conference as a whole. [DDB]



Cinderella Castle in Urayasu.

## Disney-san comes to Tokyo-wan

It seems the Japanese taste for things American is never sated. Following the parade of Levis, Big Macs, and Cokes to Nippon is the last great holdout—Mickey Mouse. The first Disneyland outside the United States opened last month in Urayasu, on Tokyo Bay.

The park is scrupulously American in every detail. Only two of 27 restaurants serve any Japanese food, and bold English signs are complemented by very unobtrusive Japanese subtitles. The idea, according to Disney officials, is to simulate that magical feeling of being in Orlando or Anaheim. And so it does with a great deal of success, although the sight of an Oriental Dixieland Band might make an American stop and look twice.

Despite the fervor for undiluted Americanism, however, the Japanese imprint has been left in subtle ways. One of the main attractions here, as in the U.S., is Main Street U.S.A. In Urayasu, however, Main Street is spanned by a gigantic translucent roof to compensate for Japan's rainy season. An exact replica of a Western barn is built with an ancient Oriental technique of fitting wooden joints together.

Bringing Disney to Japan was no small feat for its owner/operator, Oriental Land Company. It took 19 years for the company to reclaim the site (which will also include housing, hotels, and offices) from the ocean. Negotiations with Disney Productions began in 1974, but an agreement wasn't reached until 1979. While Oriental Land put up \$652 million to build the 200-acre complex, Disney contributed only concepts, its name, and technical expertise at cost. In return, Disney will get 10 percent of the gross receipts of admissions, and 5 percent of concessions and food.

If there is any doubt about the prospects for Tokyo Disneyland, its promoters point to the traditional Japanese craze for Disney films. The fact that 30 million potential customers live within commuting distance doesn't hurt, either. [RJ]

## Congress on computer-aided design

If some architects doubt that the age of computer-aided design has arrived, the 800 delegates who attended this year's International Congress on Computers/Graphics in the Building Process (Washington, D.C., April 4-8) did not.

Eric Teicholz, president of Graphic Systems, Inc., dispelled any lingering doubts concerning the broad acceptance by architects of computer-aided design (CAD). Quoting a *Building Design and Construction* survey, Teicholz reported that 40 percent of American architectural firms now use computers and that one of every seven architectural firms purchased its first system within the past ten months. As the architectural use of computers has risen, prices have fallen to the point where architects now spend, on the average, only \$30,000 for a new system. The effects of these changes were most evident on the product exhibition floor where legions of new vendors waged battle with the old timers, offering systems for everything from company accounting to door detailing. New technical innovations included high resolution raster screens, which eliminate the graphic problem of "jagging" (the undesirable stepped appearance of diagonal lines), and a new generation of electrostatic printers presaging the imminent obsolescence of the pen plotter.

Obscured by the bright lights of the latest in computer/graphic technology, the key issue of computer-aided design was often overlooked: How does CAD change the nature of the design process? CAD users at the product exhibition complained that CAD system commands often reflect computer programmers' conceptions (or misconceptions) of how architects design. At the same time, vendors admitted that they lack an understanding of the design process, which should surprise no one, given the fact that architects have debated differing design methodologies for centuries.

In practical terms, the congress confirmed that the computer imposes a variety of subtle but nonetheless significant constraints on the design process. The true innovations in CAD during the next few years must come not in slicker and snazzier hardware, but in the development of software that accommodates the creative and spontaneous aspects of design.

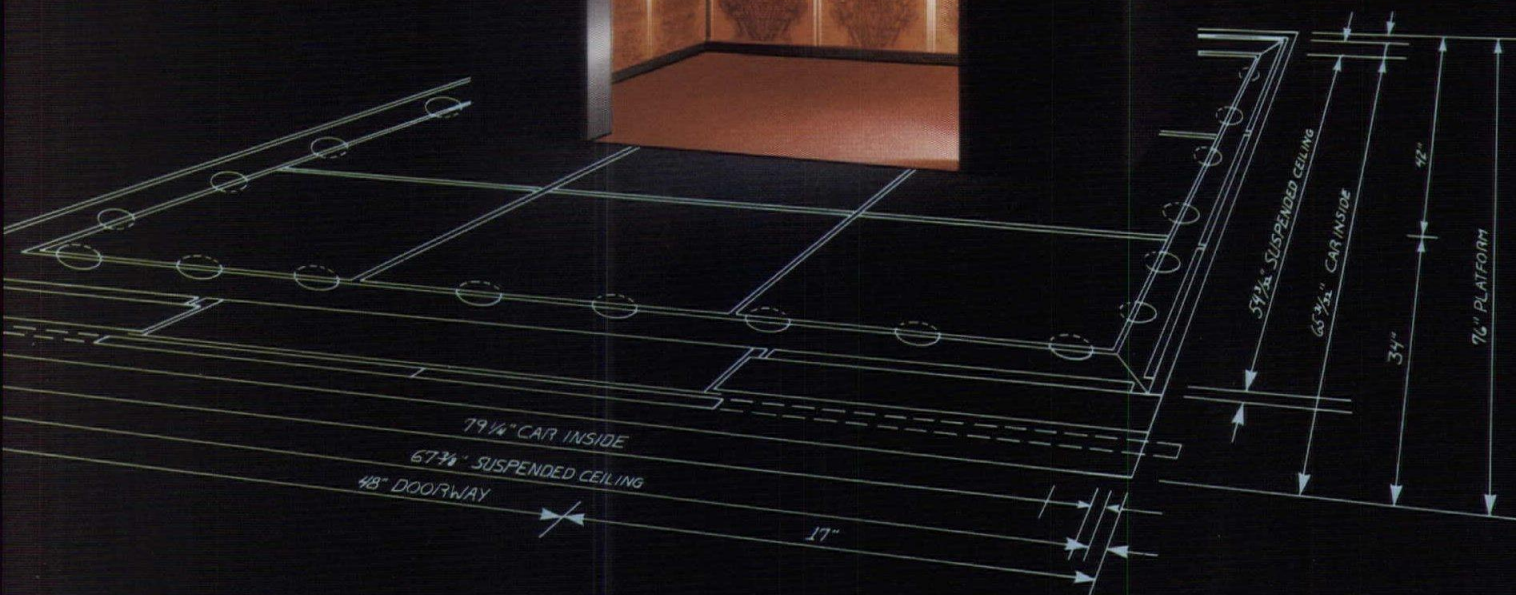
[Graham S. Wyatt]

Graham S. Wyatt, who received his Master of Architecture from Columbia University this spring, won 2nd Prize in the Douglas Haskell Awards for student architectural journalism.

[News report continued on page 35]



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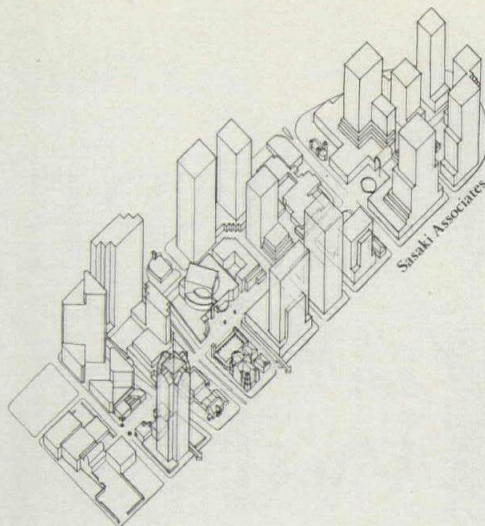
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# Perspectives



## Dallas Arts District

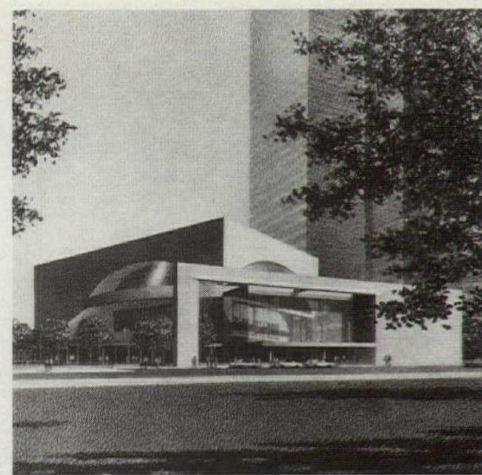
The concept of a Dallas Arts District originated in a 1977 report by Stephen Carr and Kevin Lynch on the city's arts facilities. At that time, the Dallas Museum of Fine Arts, Dallas Symphony Orchestra, and Dallas Civic Opera made their homes at Fair Park, southeast of downtown. Without referring specifically to an "arts district," the report recommended that the major arts institutions relocate closer to the center of the city. Such a concentration of facilities, the report maintained would benefit the organizations involved and also help to revitalize the central business district, then hard hit by the defection of stores and restaurants to the suburbs.

Six years, two bond elections, and millions of dollars later, the Dallas Arts District is emerging on a 60-acre site in downtown's booming northeast quadrant. It currently consists of Edward Larrabee Barnes's nearly completed Dallas Museum of Art, a model and drawings for a new concert hall by I.M. Pei & Partners, a 50-story office building (LTV Center) designed by SOM Houston, and a general landscaping and retailing plan prepared by Sasaki Associates of Watertown, Mass. Additional projects, including office buildings, hotels, and high-rise condominiums, are in the planning stages. To date the city has committed approximately \$75 million for arts facilities and public improvements in the district, a figure that could easily triple before the project is completed 15 to 20 years hence. The

remaining property in the district is owned by seven private developers, who together with the city and the heads of museum and symphony, have planned the district.

As outlined in the Sasaki Report, the Arts District will have three distinct areas: Museum Square, a collection of galleries and arts-related shops adjacent to the new museum; Symphony Lights, a group of theater-oriented restaurants near the concert hall; and La Boheme, described as Dallas's version of the Left Bank artists quarter. These areas will be linked by Flora Street, a landscaped boulevard lined with plazas and fountains. A special arts district ordinance requires that buildings along Flora Street be limited to 50 feet or 5 stories in height, that all parking be underground or screened, and that no more than 25 percent of the frontage along Flora Street be office space. The ordinance is silent on matters of building design, siting, materials, and numerous urban design issues that will affect the street's character.

The public views the Arts District with a mixture of admiration and alarm. Starting from scratch, with no models to follow and a site consisting mainly of parking lots and dilapidated commercial buildings, the Arts District consortium chose to create a district instead of scattering arts facilities all over the city or alternatively lumping them together in a single cultural monolith like Lincoln Center. It was a bold stroke, possibly



Steve Oles

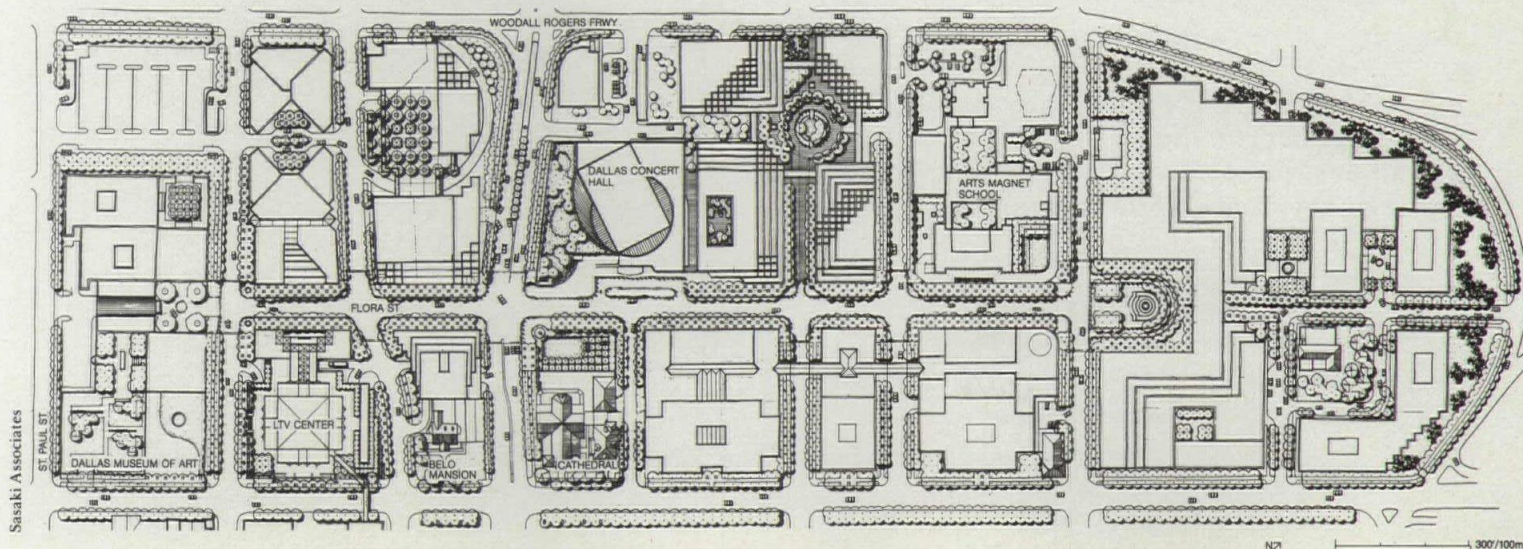
*Left: Proposed massing gradually builds up from retail along Flora St. to office and residential towers at the district edges.*

*Right: I.M. Pei & Partners, Dallas Concert Hall.*

unique among North American cities. Yet now that the district is underway, serious questions have arisen about whether it will be completed as originally proposed or become just another office park in which the arts provide a kind of exotic seasoning.

Land prices have soared to over \$150 a square foot, a situation that nearly killed the Symphony's chances for acquiring a site and one that has effectively priced every working artist short of a Roy Lichtenstein or a Jasper Johns out of the district. At a recent public forum on the district, planners, architects, and arts leaders conceded that the original image of the Arts District as a blend of major institutions, galleries, studios, small shops, and restaurants, combining the qualities of SoHo, Tivoli Gardens, and Pompidou Center, was unrealistic. Richard Huff, formerly arts coordinator for Dallas and now executive director of the Texas Commission on the Arts, was one of several speakers who concluded that the Arts District probably won't be a center for artists and small arts groups. A key factor regarding the involvement of the arts and arts groups in the district may very well be the extent to which they attract pa-

*[Perspectives continued on page 37]*





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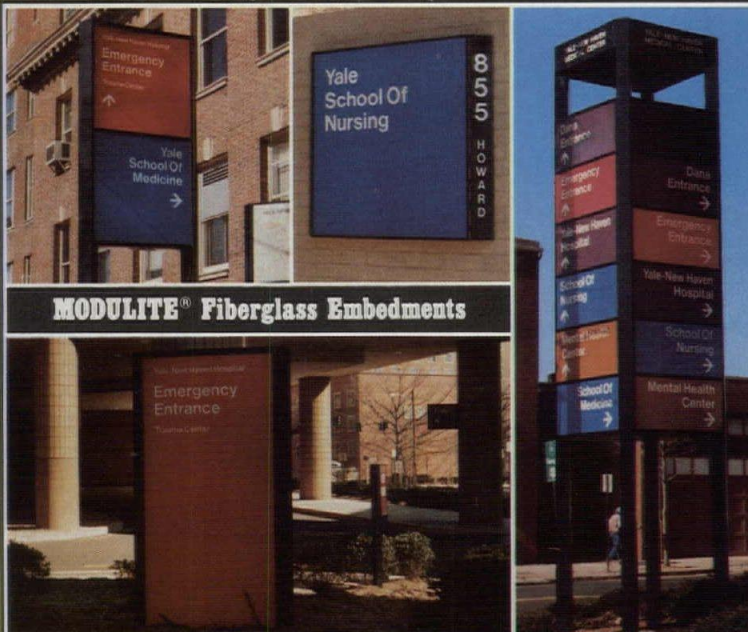


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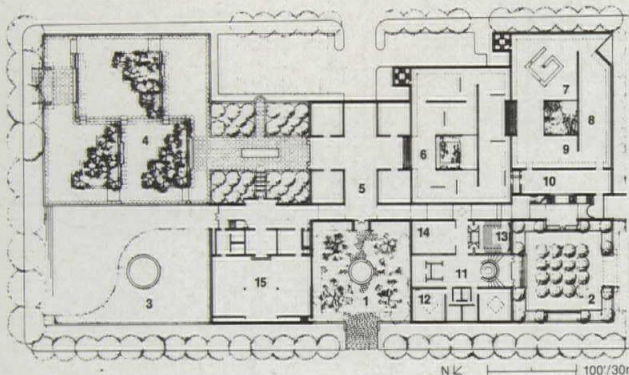
### Perspectives continued from page 35

trons to the hotels, restaurants, specialty shops, and businesses that will become Arts District tenants.

Ironically, the original Carr-Lynch report urged the city to bank land within the district, then selling for \$10-\$20 a square foot, in order to prevent arts groups from being squeezed out. The city refused on the grounds that it shouldn't compete with private enterprise. The city and the major landowners in the district have also refused, so far, to consider any form of subsidy that would permit at least a few artists and small mom-and-pop stores to survive within its boundaries.

While the future of the official Dallas Arts District is debated, an unofficial one has grown up near Fair Park, where the cultural exodus began. Known as Deep Ellum, this area of warehouses and small commercial buildings has already attracted half a dozen galleries, several theaters, and dozens of artists looking for large spaces at small rents. While its future in a speculator's city like Dallas is unclear, at the moment Deep Ellum is providing some of the things that the downtown Arts District promised but may now be unable to deliver. [David Dillon]

David Dillon is architecture critic of the Dallas Morning News.  
[News report continued on page 41]



- 1 Formal entrance courtyard
- 2 Children's education courtyard
- 3 Pedestrian entry
- 4 Sculpture courtyard
- 5 Contemporary gallery
- 6 American & European art galleries
- 7 Pre-Columbian art
- 8 African art
- 9 Asian art
- 10 American Indian & oceanic art
- 11 Children's education wing
- 12 Studio—classroom
- 13 Orientation
- 14 Museum bookstore
- 15 Temporary exhibition galleries

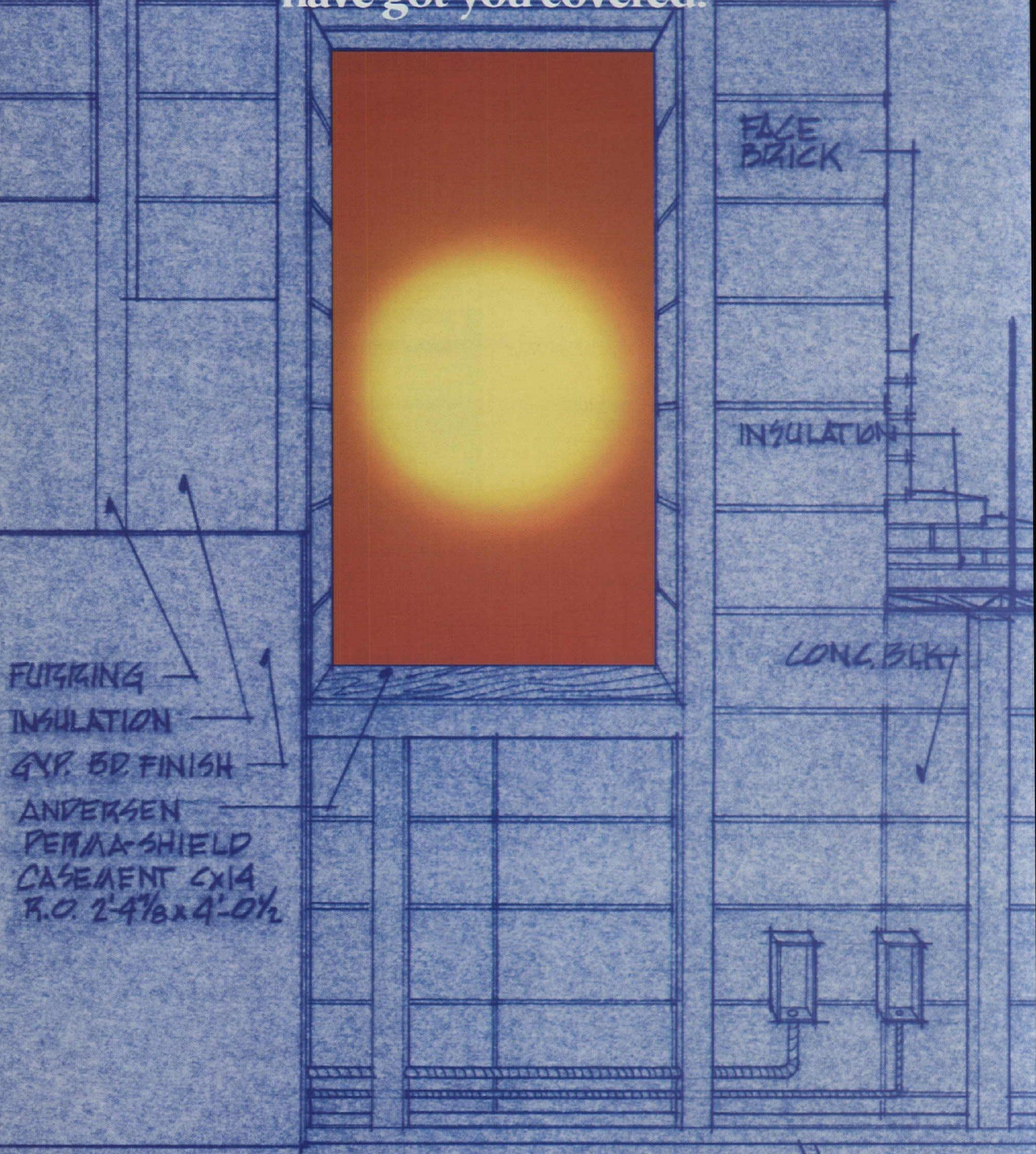


Edward Larrabee Barnes, Dallas Museum of Art, plan and construction view.

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Top: Michler Place. Above: N Street, N.W.

## Saving face

These days, few architects have the temerity to openly question the merits of historic preservation; indeed, the theme of the 1983 AIA Convention salutes our architectural heritage. A spate of projects now underway or recently completed in the nation's capital embody a peculiar manifestation of this concern for "old" buildings. They invite serious questioning of the motives behind preservation, if not occasional hostility toward its proponents and built results.

Washington's prosperous Northwest section in particular has suffered from the clash of conflicting interests, whose battles are often waged in the courtroom. Confrontations between developers, neighbors, architects, and public-spirited preservationists have produced new/old buildings that resemble neither fish nor fowl. The approach is commonly called "façade preservation," but it might better be called saving face.

The falseness is sometimes ludicrous, in more ways than immediately strike the eye. Try one of the "doors" on Mich-

ler Place, and you find that it is sealed shut; look inside the replica 2-over-2 double-hung windows (complete with burglar alarm wiring), and you see suspended acoustical tile ceilings and coffered fluorescent fixtures directly abutting the interior window heads. If the historic interior was high-ceilinged, the present one employs the code-minimum floor-to-ceiling height. If natural light once sufficed, standard speculative office lighting is now obligatory.

Michler Place's original occupants withstood Washington's hot, humid summers, largely because the rooms had high interior ceilings, operable windows, and a host of other sensible features. Of course we do not expect today's lawyers and their clients, who must now use the row, to suffer in this historic way. But the new preserves none of the workings of the old and doesn't even attempt an architectural reinterpretation; the project's emulation of its past is barely skin deep.

In fact, only a small portion of the face of the original row has been saved; the rest is replica. Even the cast lintels and sills are copies derived from the study of historic photographs. It should probably be noted that this design was a compromise solution, brought on by "Don't Tear it Down," one of Washington's principal preservation action groups and a frequent litigant on the development scene.

A second project in progress on N Street, N.W., set between Connecticut Avenue and 19th Street, also proposes to save a row of façades. It adds the novel dimension of replicated "historic" [News report continued on page 43]

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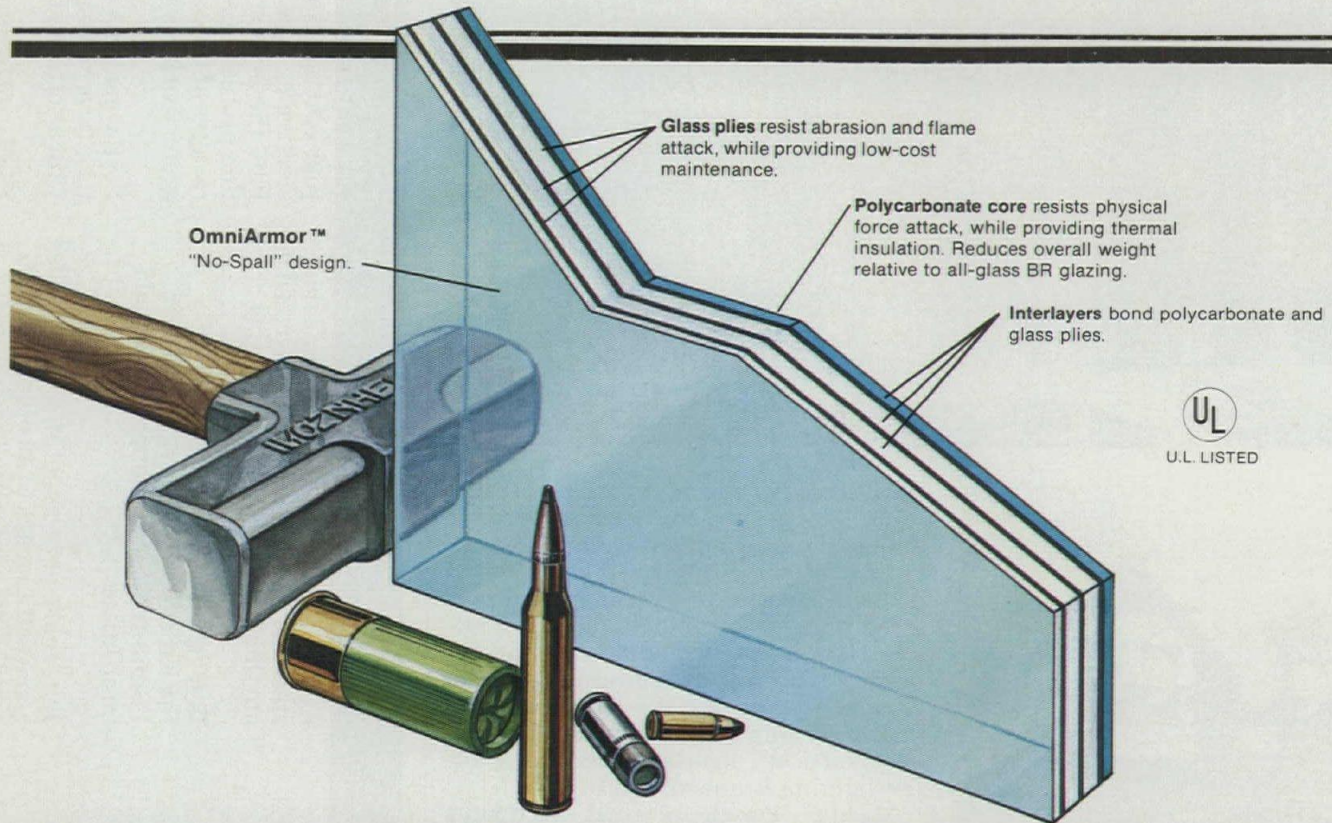
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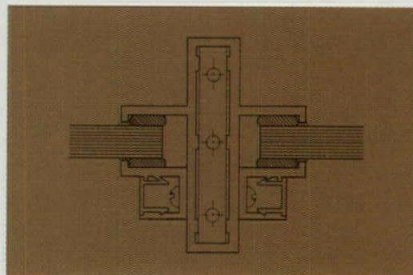
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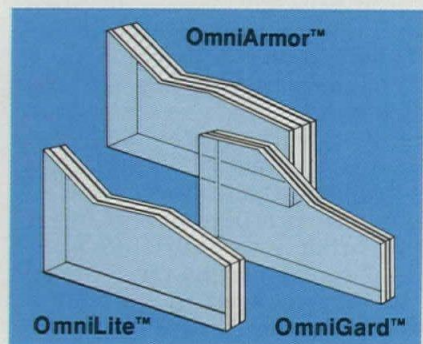


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Top: Red Lion Row. Above: N Street, N.W.

interiors which are to be restored to a distance of 15 feet from the building face, presumably to overcome some of the problems noted above. The saved faces will front for a speculative office complex. At present, however, they are just shored-up pieces of the original standing above a giant excavation. (One observer commented, "Next we'll just be saving the historic paint.") The phony façades disguise a shift from residential to commercial occupancy that the neighborhood would prefer to halt. Unable to detour the onslaught of 1980s real estate economics, preservation proponents force the compromise: the occupancy will change, but the exterior forms, at least at street level, will "appear" residential.

The George Washington University, developer of the old Red Lion Row, has dubbed its new complex "2000 Pennsylvania Avenue." Technically the complex fronts on Eye Street, N.W., and it is much larger than others in its class. Here an entire block of what had been tawdry row-buildings fronts for a \$40 million complex that will have ground-level shopping and 10 stories of office

space. The developers, bowing to pressure from the preservationists, spent \$5 million to "save" the old faces. In progress, the row looked like a scrapyard for Victorian-era brick houses, with huge chunks of steel thrown every which way to act as temporary shoring for the enfeebled façades. The project is far enough along to give one the sense that the massive new building, like a giant magnet, attracted pieces of little buildings now stuck to it.

Are these results better than what would have been there otherwise, if the original buildings had simply been razed to make way for the new? It must be said that Washington, a historic capital city that is beset by a jumble of jurisdictions and design review procedures, is by definition a difficult environment in which to practice. It invites design by committee and, like any political context, is likely to favor compromise. At a Washington preservation gathering last winter, Peter Blake of Catholic University suggested that the stage-prop approach to preservation—moving façades, saving them as "old" fronts for "new buildings" and even moving whole buildings—is a practice at least as old as antiquity and just fine at that. One might answer that, yes, these projects are better than what would have happened otherwise. But even for the hard-core preservationists of "Don't Tear it Down," the movement towards face-saving is more an expression of the loss of faith in contemporary buildings than a resounding judgment in favor of their predecessors. [Thomas Vonier]

[News report continued on page 45]

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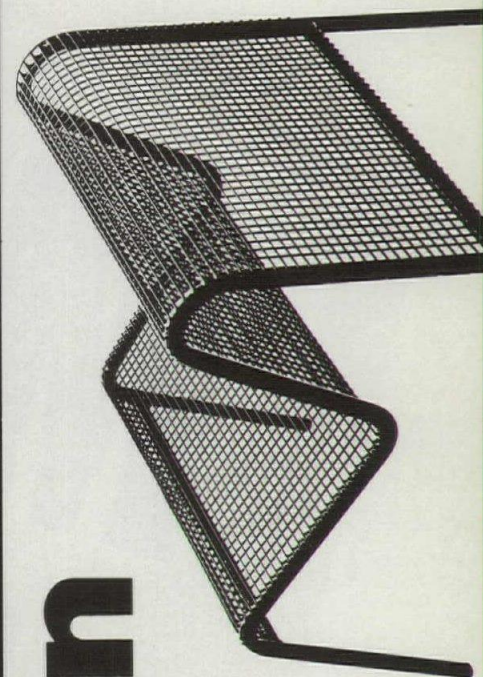
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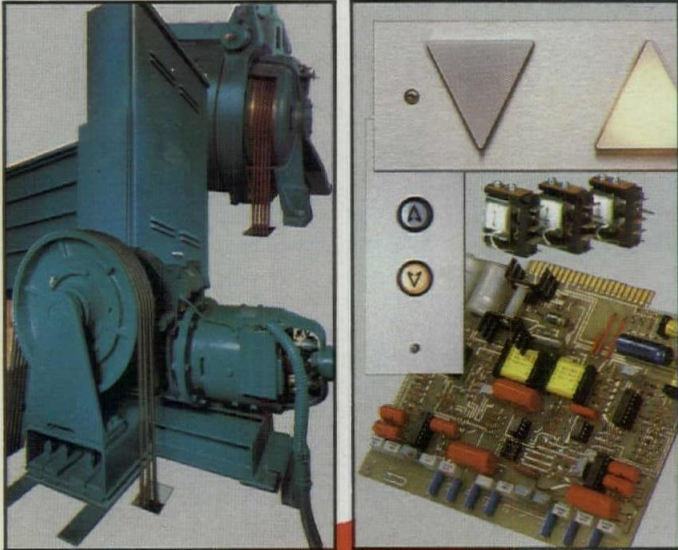
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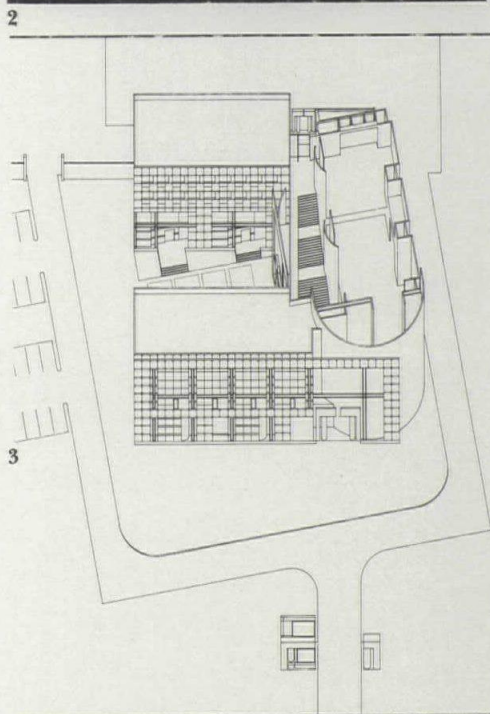
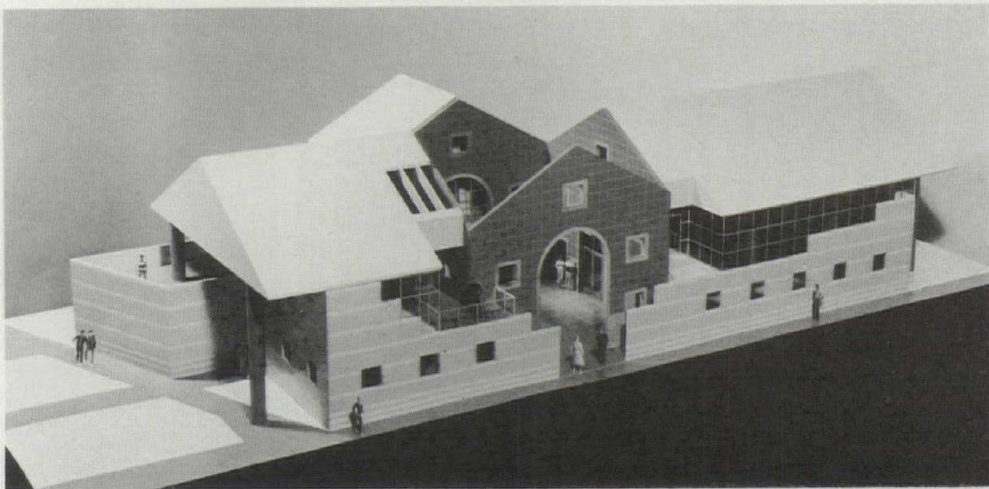
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**2 Zapf Residence, Orient, N.Y.** *Haigh Architecture and Design, New York.* Architect Paul Haigh's design for a two-story frame house on Long Island's north shore will function as a house-cum-atelier for European furniture designer Otto Zapf, who makes frequent visits to the U.S. Flexible first-floor spaces can be used for design presentations; each of the four bedrooms has its own deck. The structure is oriented toward the Sound view, while the central masonry tower, with its pyramidal skylight, is oriented to function as a solar chimney.

**3 Marine Safety office for the United States Coast Guard, Philadelphia.** *Architect: Geddes, Brecher, Qualls, Cunningham, Philadelphia.* This building will consolidate the activities of two outdated facilities on both sides of the Delaware River. The program calls for such diverse elements as a boat maintenance yard, housing for Coast Guard personnel, offices and quarters for the Philadelphia Marine Police and Fire departments, Coast Guard offices, a dining hall, and a courtroom. The building, on a prominent site at the intersection of Delaware Avenue and Washington Avenue, has two paths of circulation: one public, formal, and processional; the other private, informal, and circumstantial. These axes serve to organize elements around a ceremonial courtyard or parade ground.

[News report continued on page 56]

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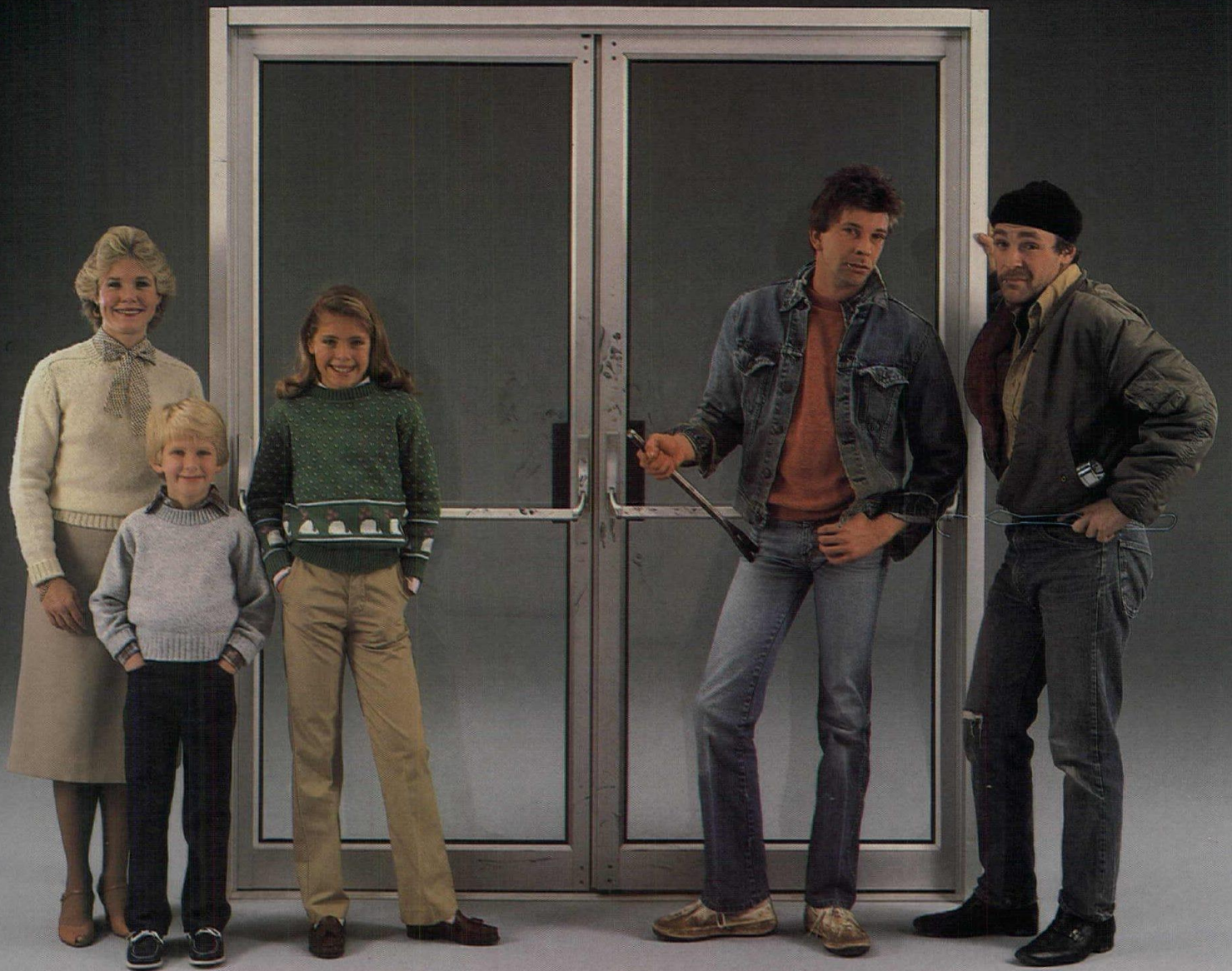
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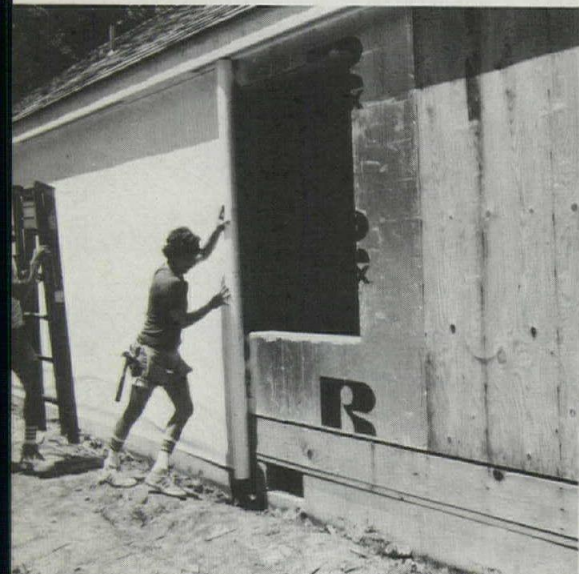
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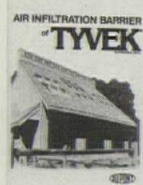
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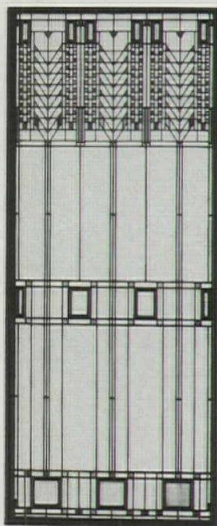
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Pencil points continued from page 25

¶ However, cooperation between city agencies, the county River Authority, and the Archdiocese is a tradition in San Antonio. After nearly five years of efforts to link the still-active churches into the River Corridor plan (P/A, June 1975), the San Antonio Missions National Historical Park was officially dedicated on April 1. The 250-year-old Missions Espada, San Juan, Concepcion, and San Jose are now the only examples of functioning parish churches to be incorporated into the National Park Service. Appropriately, the day of transition was Good Friday. (PCP)



F. L. Wright, "Tree of Life" window.

### Wright sale

The windows and doors from the Darwin D. Martin house in Buffalo, N.Y., considered among the finest examples of Frank Lloyd Wright's Prairie School period, went on the auction block May 26 at Christie's. The pieces, from the Estate of Mrs. Martin, include the "Tree of Life" window and door, which sold for \$41,800 and \$110,000 respectively.

¶ The sale coincided with the opening of a major Wright show at the Cooper-Hewitt Museum, New York, and with the recent opening of the Wright Little room at the Metropolitan Museum, marks a rising interest in Wrightiana.

### Canadian art and architecture

The Social Sciences and Humanities Research Council of Canada has awarded a grant to bibliographer Loren Singer and librarian Mary Williamson to prepare a reference guide to the literature of art and architecture in Canada. It will include approximately 6000 annotated entries.

### California competitions

Six firms—two of national repute, two well-established local firms, and two new ones will vie with one another for the right to redesign San Diego's port and water front.

¶ The finalists are respectively: Sasaki Associates, Watertown, Mass., and Arquitectonica, Coral Gables, Fla.; Buss, Silvers, Hughes and Martinez/Wong; and Pegasus Architecture and Design and Rob Wellington Quigley.

[Pencil points continued on page 52]

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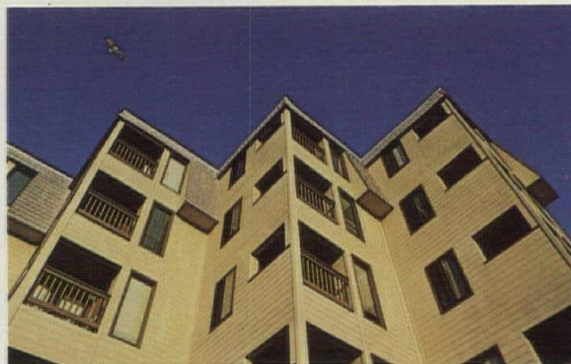


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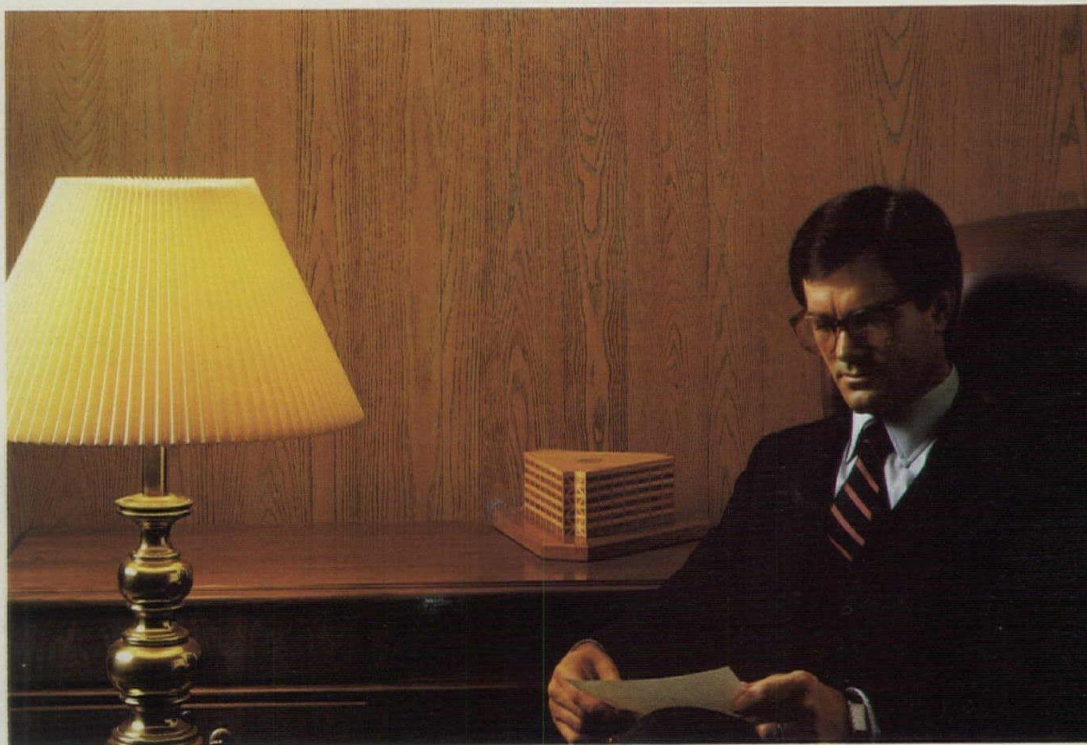
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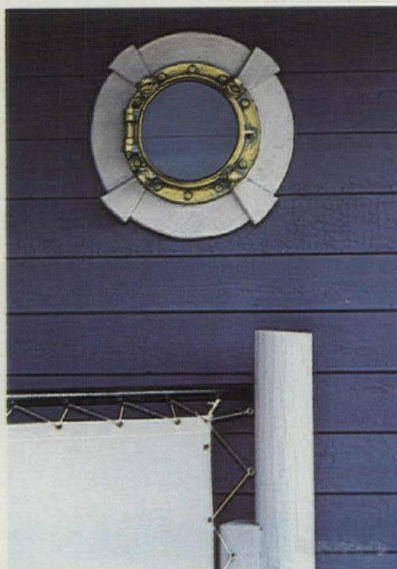


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# Why are more steel buildings going up these days?



Headquarters Building  
H&H Oil Tool Company, Inc.  
Santa Paula, California



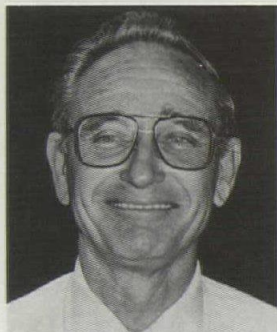


# Ask the people who design, own and finance them!

Today's steel building systems are looking better than ever. In many ways. In fact, in recent years, nearly *half* of all contracts for one- and two-story structures up to 150,000 square feet are for pre-engineered steel buildings. And the trend is definitely up. But don't just take our word for it...

## **"We were able to do things aesthetically."**

Mr. Jack J. Hayslett  
Architect  
Octagon Associates  
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"There were many attractive options in design and construction—more than I'd previously realized. We were free to deviate broadly from the old standard metal building look. We used stone, glass and redwood for striking good looks.

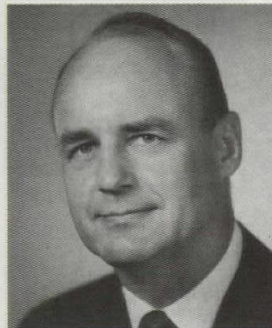
"We know the building is durable (it's steel), and will require very little maintenance. I was quite pleased with the builder and fabricator, too. Construction was completed well ahead of schedule. If I do say so myself, the new H&H Oil Tool Company headquarters is really a beauty."

## **"The building is marvelous and it was all done on time"**

Mrs. Zella A. Kaiser  
Executive Vice President &  
Chief Financial Officer  
H&H Oil Tool Company, Inc.  
Santa Paula, California



"I am most impressed with our new headquarters building. We're very proud of its appearance. The architecture is outstanding. Actually, 90% of the people who come here don't realize it's a metal building, and I have a hard time convincing them. Because it's steel, it's quite durable and solid. Flexible, too. We plan to expand it considerably next year. Energy efficiency is built in and is excellent. Overall, we couldn't be more pleased with our steel building."

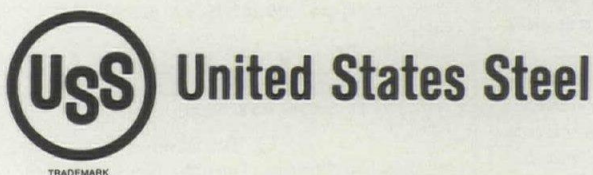


## **"We're happy to have been involved in financing this steel building."**

Mr. Joseph Banis  
Assistant Vice President,  
Real Estate Loan Department  
Union Bank  
Los Angeles, California

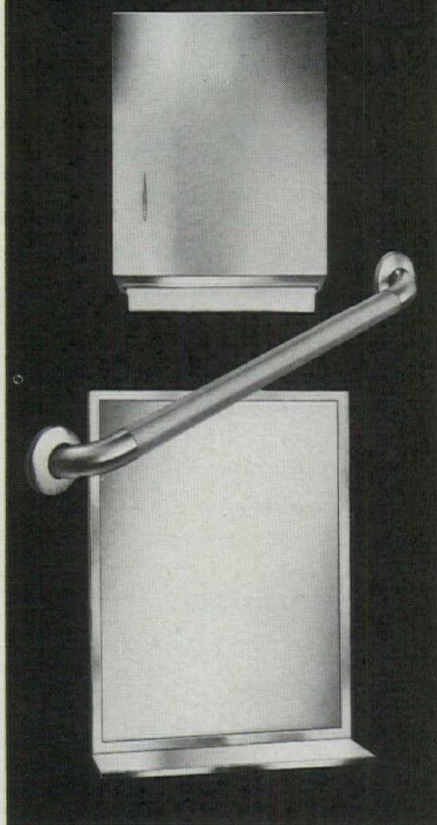
"Union Bank, as a leading lender for commercial and industrial projects in California, was pleased to help finance the recent construction of the H&H Oil Tool Company headquarters—an outstanding example of a modern steel building. The building itself is most attractive and very functional, allowing for future expansion as needed. We expect to be involved in the financing of more and more steel buildings in the future."

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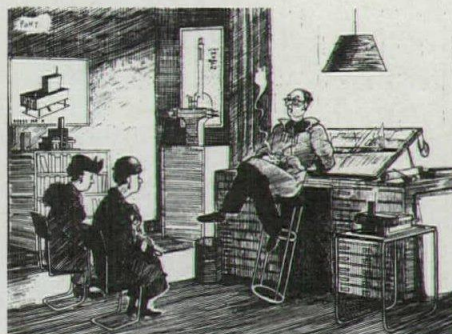


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Pencil points continued from page 48

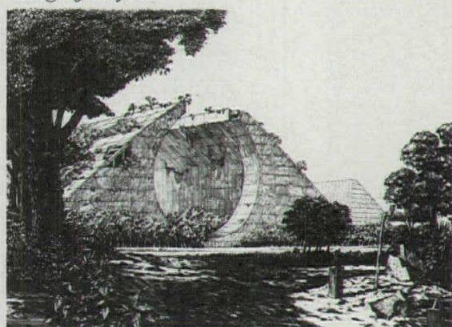
¶ And in Santa Barbara, five finalists have been selected to compete in an on-site charrette for the design of a new museum of art at the University of Calif.

¶ The lucky five are Michael Dennis and Jeff Clark, Newton, Mass.; Vladimir Arseno and Anthony Zottu Panu, A/L Design, New York; Mark Cigolle and Katharine Coleman, Inglewood, Calif.; DMJM, Los Angeles; William Palmore, Gavin Bromell, N.Y., and W.E. Kuykendall, El Paso, Texas.



Graham Laidler, Punch

"Did I really understand you, Miss Wilson, to use the expression, 'a cosy nook,' in connection with the house you wish me to design for you?"



Collection of Philip Johnson

"Temples of Big Apple," David Macaulay.

## Architectural amusements

The "Architecture in Cartoons" postcard portfolio, published by New York's Architectural League, includes doodles culled from architects' collections and from the public press.

¶ Featured are artists Edward Koren, David Macaulay, James Thurber, Red Grooms, Paul Flora, Tim Prentice, Michael Mostoller, Forrest Wilson, Graham Laidler, and illustrators from Punch magazine.

¶ A kit of 12 costs \$5 from the League, 457 Madison Ave., New York, N.Y. 10022.

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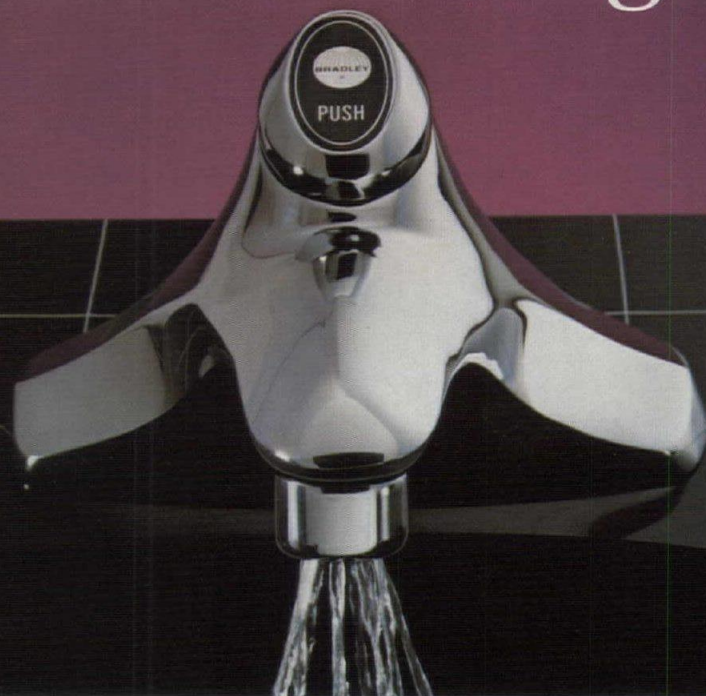
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## Calendar

### Conferences, seminars, workshops

**June 14-17.** NEOCON 15, Merchandise Mart, Chicago (P/A, May 1983, pp. 59-132).

**June 18-23.** 28th Annual Association of Collegiate Schools of Architecture Teachers Seminar, Cranbrook Academy, Bloomfield Hills, Mich. Contact ACSA, 1735 New York Ave., NW, Washington, D.C. 20006 (202) 785-2324. Also: **July 15-16,** San Francisco Forum on Architectural Issues.

**June 19-21.** Beyond the Suburbs: Planning and Development in Small Cities, Towns, and Rural Counties, Nashville. Contact American Planning Association, 1776 Massachusetts Ave., NW, Washington, D.C. 20036.

**June 23-25.** Computers: Process, Design, Illinois Institute of Technology, Chicago. Contact Val Lewandoski, Manager, Continuing Education, IIT, (312) 567-3020.

**June 24-26.** Construction Specifications Institute Annual Convention, Kansas City, Mo. Contact CSI, 601 Madison St., Alexandria, Va. 22314 (703) 684-0300.

**June 27-28.** Reusing Old Buildings: Preservation Law and the Development Process, Fairmont Hotel, San Francisco. Contact Conference Coordinator, The Conservation Foundation, 1717 Massachusetts Ave., NW, Washington, D.C. 20036 (202) 797-4300.

**June 28-July 5.** International conference: Passive and Low Energy Architecture. Crete, Greece. Contact PLEA, 36 Bedford Sq., London, WC1B 3ES, UK.

**July 25-29.** Realities of Historic Preservation, MIT. Contact Sharon Torhon,



Currier & Ives exhibit, New York City Hall.

MIT Laboratory of Architecture and Planning, Room 4-209, MIT, Cambridge, Mass. 02139 (617) 253-1350.

**July 28-Aug. 1.** Revolution/Evolution, ASID National Conference and International Exposition of Designer Sources, Boston. Contact ASID (212) 586-7111.

**July 31-Aug. 4.** Computer Graphics Conference, Cambridge, Mass. Contact Computer Graphics Conference, Office of Special Programs, 48 Quincy St., Cambridge, Mass. 02138 (617) 495-9345.

**Aug. 1-10.** Energy Efficient Buildings with Earth Shelter Protection, an International Conference, Sydney, Australia. Contact Australia 83, Architectural Extension, Oklahoma State University, Stillwater, Okla. 74078.

### Exhibits

**Through June 30.** Design: The Problem Comes First. AIA Building, 1735 New York Ave., NW, Washington, D.C.

**Through June 30.** Mondrian: New York Studio Compositions. Museum of Modern Art, New York.

**Through July 3.** Frank Lloyd Wright's Japanese prints. The Octagon, 1799 New York Ave., NW, Washington, D.C.

**Through July 30.** Great Drawings from the Royal Institute of British Architects. The Drawing Center, 137 Greene St., New York.

**Through Aug. 28.** The Esmark Collection of Currier & Ives, New York Historical Society, 170 Central Park West, New York.

**Through Sept. 4.** 20th Century American Prints of Urban Architecture, Cooper-Hewitt Museum, New York.

### Competitions

**July 31.** Entry deadline, 1983 Historic Preservation Photography Contest. Contact Photography Competition, Historic Preservation Magazine, 1785 Massachusetts Ave., NW, Washington, D.C. 20036.

**Aug. 12.** Entry deadline, First Annual IALD Lighting Awards Program. Contact Stephen W. Lees, Jules G. Horton Lighting Design, Inc., 200 Park Ave. So., Suite 1401, New York, N.Y. 10003 (212) 674-5580.

**Aug. 31.** Postmark deadline, 31st Annual P/A Awards (see page 15 for information and entry blank).

**Sept. 1-30.** Entry deadline period, Shinkenchiiku Residential Design Competition. Contact Shinkenchiiku-sha Co., Ltd., 2-31-2 Yushima, Bunkyo Ward, Tokyo 113, Japan.

**Sept. 6.** Entry deadline, Industrial Design Excellence Awards (IDEA). Contact Kristina Goodrich, IDSA (703) 556-0919.

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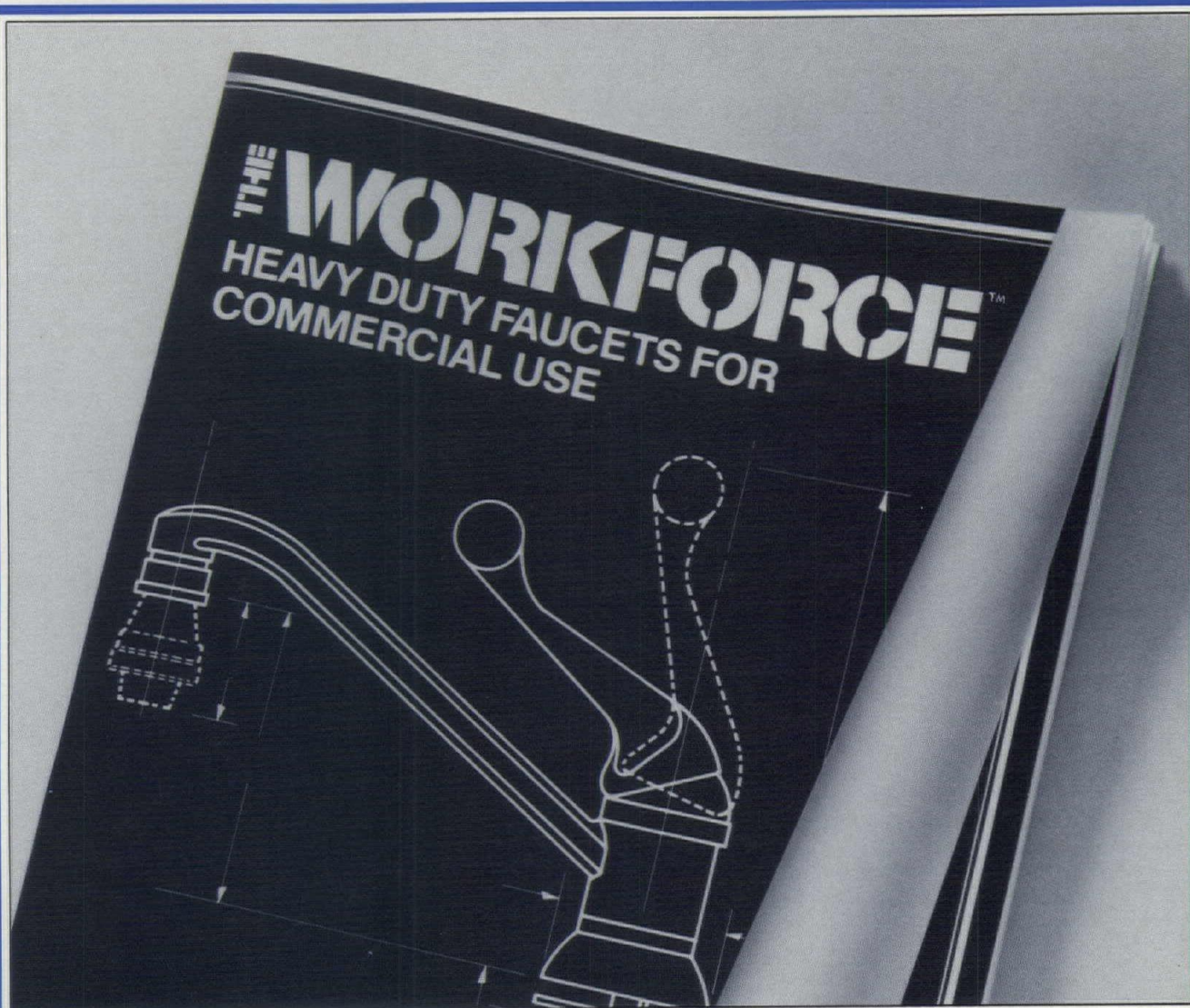
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Concrete Reinforcing Steel Institute announces a Call for Entries in the 1983 CRSI Design Awards Program—our seventh National Awards event for design professionals.

The Awards will honor creative design achievements utilizing site-cast concrete in which conventional reinforcing bars are the predominant reinforcement.

### General Information

**Categories of Awards**—The program is open to site-cast reinforced concrete structures of all types.

**Criteria of Awards**—Esthetic expression, engineering achievement, functional excellence, or economy (or any meritorious combination of these qualities.)

**Architectural Award**—Several Awards will be presented, each equally acknowledging excellence of achievement. Each Award will consist of (1) engraved commemorative plaques for architect, and engineer, (2) publication of the winner's story and structure in print advertising sponsored by CRSI, and (3) presentation of the Award at a special ceremony.

**The Jurists**—A distinguished panel of recognized professional architects and engineers from throughout the United States will select the winners.

**Eligibility**—The CRSI Design Awards Program is open to all registered architects and engineers (entrants may be individuals or teams). Eligible structures must be located within the continental United States and have been completed since January 1, 1981 or essentially finished by November 1, 1983.

**AIA Approval**—This program has been approved by the American Institute of Architects and is patterned after the AIA Honor Awards Program.

**Announcement of Winners**—To be made as soon after judging as practical.

**Ownership and Publication of Entries**—All entries shall become sole property of CRSI. No materials will be returned. CRSI reserves the right to use or publish all entries and accompanying materials in CRSI advertising, CRSI publications or for any and all editorial purposes. By entering, entrant grants a royalty-free license to CRSI to use any copyrighted materials. Such right includes publication of photographs and names of Award winners without compensation to entrants.

**Jurists' Decision Shall be Final**—Upon entering the CRSI Design Award Program, entrants waive their right to make a claim against the panel of jurists (or any member thereof), or to make a claim against Concrete Reinforcing Steel Institute (or any member thereof).

### How To Enter

The following requirements correspond to those of the AIA Honor Awards Program. Entries prepared for the AIA Program may be submitted in duplicate to the CRSI Design Awards Program. **However, please also include the descriptive data sheet specified in item 4.** All other entries should be prepared as specified in items 1 through 5. No entry forms are required.

#### 1. Binder

All material must be contained in an 8½" x 11" binder.

#### 2. Photographs and slides

For every project, submit sufficient photographs (either black and white or color), and slides to properly illustrate the design solution. **All architect and project identification must be removed from all such submitted materials.** Minimum requirements are set forth below:

##### Exterior Photos

- One 8" x 10" print showing each exposed side of the building.
- One additional 8" x 10" print showing the immediate environs of the building as these abut the selected side being shown (may be omitted if environs are included in above.)

For a group of buildings or an urban project (or segment thereof), one 8" x 10" photograph of the project sufficient to illustrate the concept including relationship to its environs.

##### Interior Photos

- One 8" x 10" print.

##### Slides

- A minimum of five 2" x 2" 35mm color slides must be included for each entry—three exterior views and two interior views. They are to be of completed buildings and emphasis should be on adequate effective slides which show the merit of the project and each facade of the building.

#### 3. Plans

Site plan—at small scale, showing the project and its immediate environs. Floor plan or plans and one or more sections—sufficient to explain the solution. Plans must be at scale, but may be shown in any medium. Scale at discretion of entrant, as large as practicable. Scale must be shown graphically. Plans must be on 8½" x 11" sheets placed in transparent window sleeves.

#### 4. Descriptive data

To preserve anonymity during judging, submit the following data typewritten on plain white 8½" x 11" paper.

- Description of type of structure.
- Size of structure in total square footage.
- Date structure was completed or scheduled for completion.

##### Important:

Please provide complete information on the following:

- a. Structural framing system: Indicate which portions of system are conventionally reinforced, prestressed, or precast concrete. (Remember, structure must be predominantly site-cast and conventionally reinforced.)
- b. Unique structural and/or architectural design features: Describe any that deserve special consideration by the jurists.

c. Reasons for choosing reinforced concrete: Please be specific and include comparisons with other structural systems where applicable.

#### 5. Concealed identification

All information requested here **must** be included on a separate typed sheet. Please be certain that **all** spelling and **all** punctuation are absolutely accurate.

- Proper name of structure
- Name, address, and phone numbers of:
  - Architect
  - Engineer
  - Contractor
  - Owner
- All titles or other designations such as consultant, associated architects, project architect, architect in charge, associate architect, etc.
- All city and state locations.

##### Deadline

All entries must be received no later than November 1, 1983 at CRSI headquarters. For additional information, call 312/490-1700.

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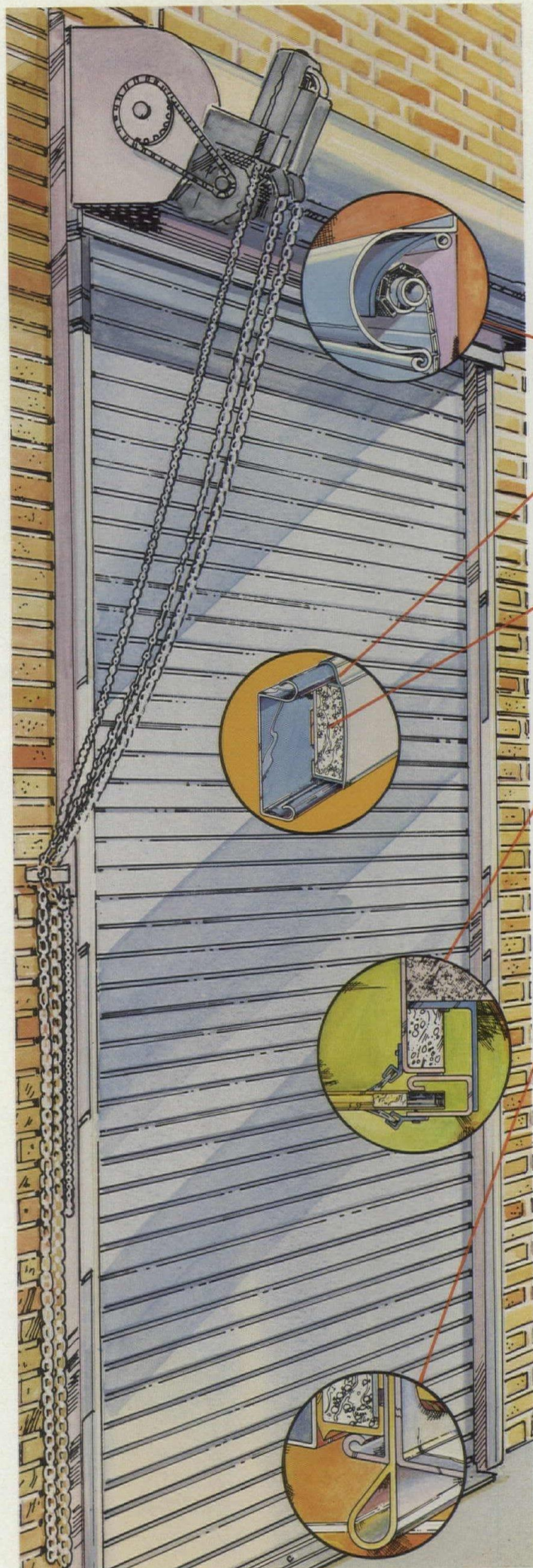
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The CRSI Design Awards VII Program



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2

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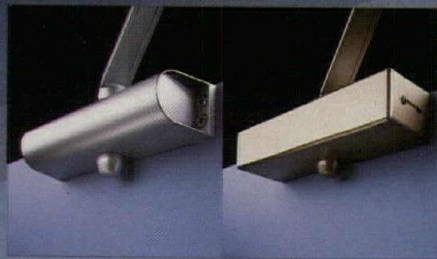
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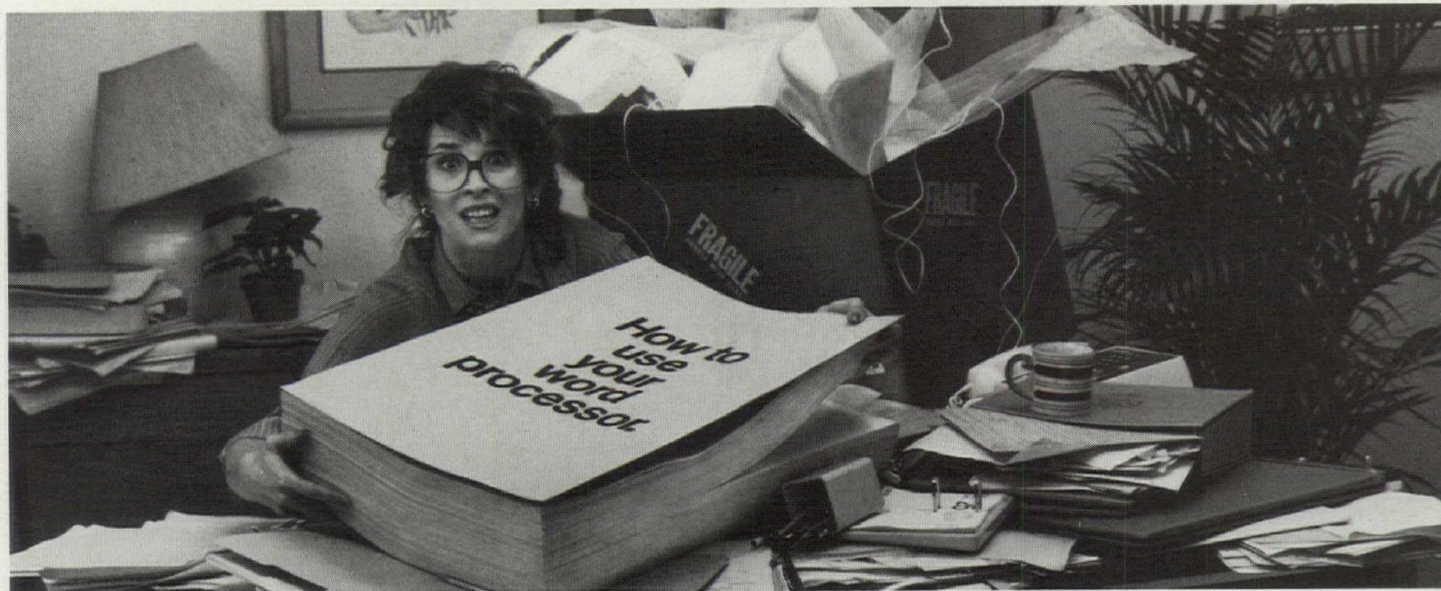
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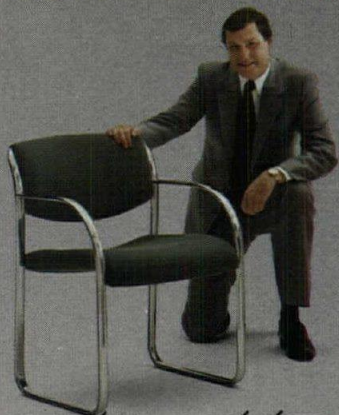
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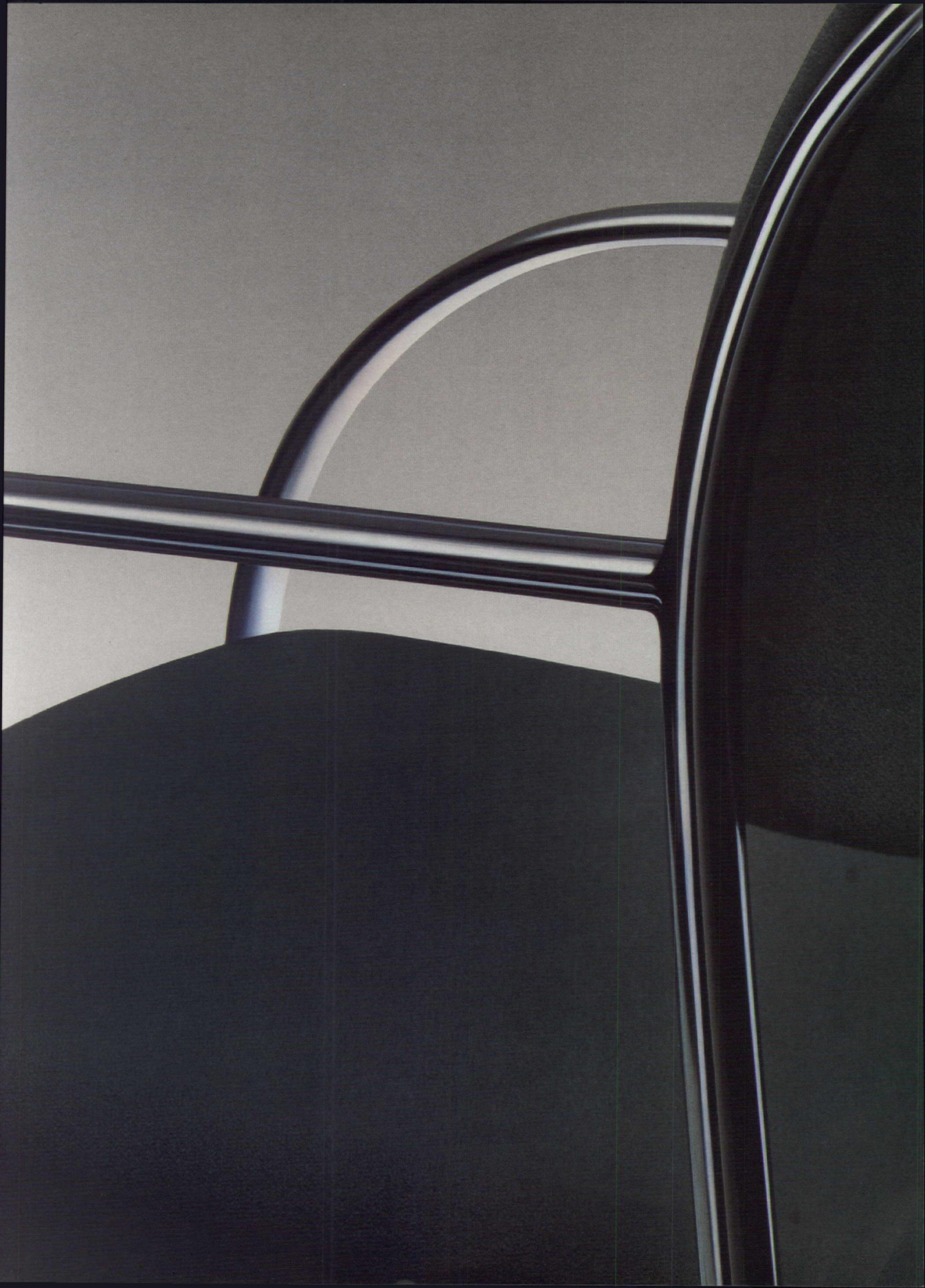
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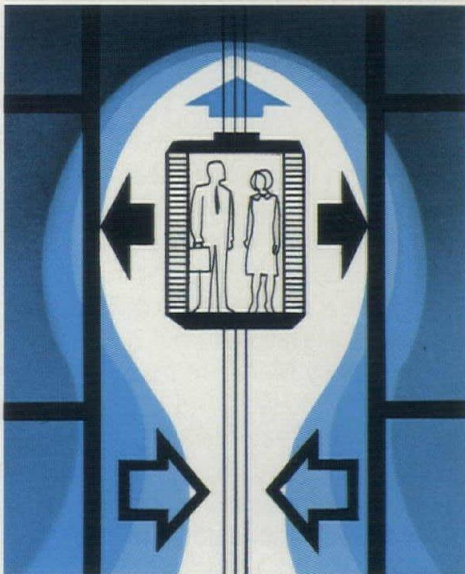
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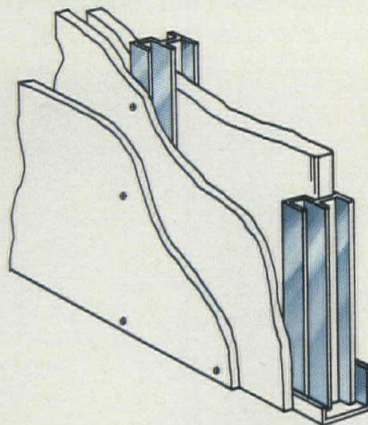
In the event of fire, stairwells are the only means of human escape or rescue. Elevators are used by fire fighters to reach a floor near the fire. Mechanical shafts are vital channels for vertical communication, power, water, fresh air and exhaust. These shafts are truly the life-lines of the building. It is critically important that these walls protect people and necessary services from fire and that they be structurally able to withstand air pressure loads and impact.

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- Has 20-ga. J-strut with a 3-in. leg at elevator door jamb as terminating structural member at wall and door-frame interface. Both the thickness and length of leg noted here are necessary to meet existing fire tests of elevator entrance doorways.



Innovative design of USG Steel C-H Stud and 24-ga. J-runners are key elements in making USG Cavity Shaft Wall the construction industry's most reliable drywall shaft enclosure system. Construction shown here is U.L. design number U438 (2 hr.).

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# The good, the old, the pure, and the naughty

**Craftsmanship—it is a matter of morals as well as methodology.**

"Craftsmanship" connotes a range of experiences. The first image the word evokes is that of the finely modeled object: earnest, honest, wholesome, it engages the viewer in an almost active involvement. It calls forth a desire to touch it, and brings to mind the process and even the person behind it.

But architecture—that manipulative, sometimes sardonic, often narcissistic, and seldom innocent art and craft—has delighted throughout the ages in bending that first image to its will. As a second image, it has expressed materials "dishonestly," for the spiritual benefit of the users: the Greeks transferred their god-sheltering wood temple forms to stylized stone structures, and developed the Classical orders. Third, it has made an ultimate virtue of the "honesty" of the pure representation of materials (even if it has had to pretend in the process). And finally, it has made a deliberate show of expressing materials misleadingly, or ironically, to provoke questions and disrupt complacency about architecture and culture.

In these eclectic times, these different philosophical approaches coexist. Some architects are most excited by the last, mannered approach, seen for example in Hans Hollein's jewelry shop in Vienna (p. 76). Others are moved by the first, and delight in the skillfully wrought details of the Stockholm Bank interiors (p. 95). Members of Classical America (John Blatteau, p. 70, for example) perpetuate the second approach, while some Modernists will fight to the death for "purism." One thing, however, is certain: Architects must be possessed by a love of materials, whether they express their love with reverence or irreverence. Ideas and drawings alone cannot make architecture.

Neither democracy nor capitalism seems to encourage traditional, time-intensive crafts-

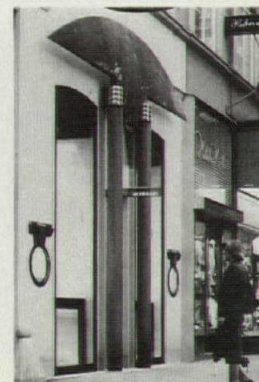
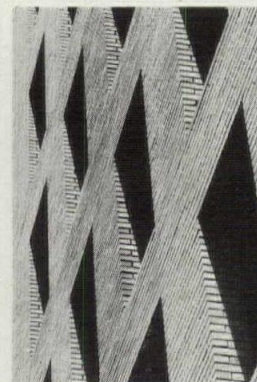
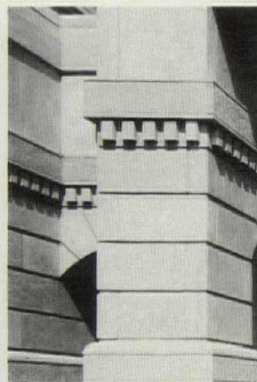
manship. On the other hand, industrialization has provided the means for a new type of "craftsmanship" (of which Ruskin would not approve) in which the end is more important than the means. Industrial methods can produce "hand-crafted" items, and vice versa: Plaster moldings can be turned out by the yard in a factory (p. 106), and used to achieve a Classical room, while an industrial aesthetic may in fact require a high degree of individualized crafting (the porcelain-enamelled panels in the High Museum in Atlanta, for example). Industrial materials may be used in unexpected ways: nonskid aluminum stair treading (p. 76), corrugated metal, and chain link, say, can be used ornamentally.

Costs are related to the means, not the style. Bayonne Hospital (p. 94) replicates traditional elements in cast stone, and falls well within the stringent budget allocated to hospitals, but hand-rubbed Classical wood paneling, needless to say, is expensive. The High Museum's three-foot panels, so simple looking, are reported to take more than twice as long to install as an ordinary curtain wall.

In this issue, the first section features buildings that represent various attitudes towards materials: a Stockholm bank that illustrates fine workmanship in a Modernist idiom; a jewelry shop in Vienna in which precious and commonplace materials are inventively combined; a Buenos Aires apartment building that uses ordinary materials to create a collage that comments upon diverse 20th-Century urban forms; a horse farm that combines old and new buildings, the latter built in sympathy with the former; and a mosque that perpetuates a traditional form using traditional methods, in the New World.

The second section focuses on individual materials and processes, some new, some traditional. [Susan Doubilet]

*Details from (left to right) the Juddmonte farm (p. 86); Bayonne Hospital (p. 94); Buenos Aires apartment building (p. 80); and the Schullin jewelry shop (p. 76).*







South front (above) fills one side of a city square. Light snow points up relief of split black granite wall (detail, opposite); mullions clad in smooth granite imply another screen behind the rough outer grid. Stainless steel cylinders at main entrance turn to expose revolving doors. Cylindrical niches at corners originated as concessions to city planners. Wall grid was originally to end in "open" squares at top, as on Aalto's Enzo Gutzeit façades, but more conservative solid cor-

nice was finally adopted. Inside the stone-walled volume, work space is laid out in hollow squares (plan and section), with central vault at lower levels, open court above. Top story and penthouse accommodate employee dining and recreation spaces.



# Granite treasurehouse

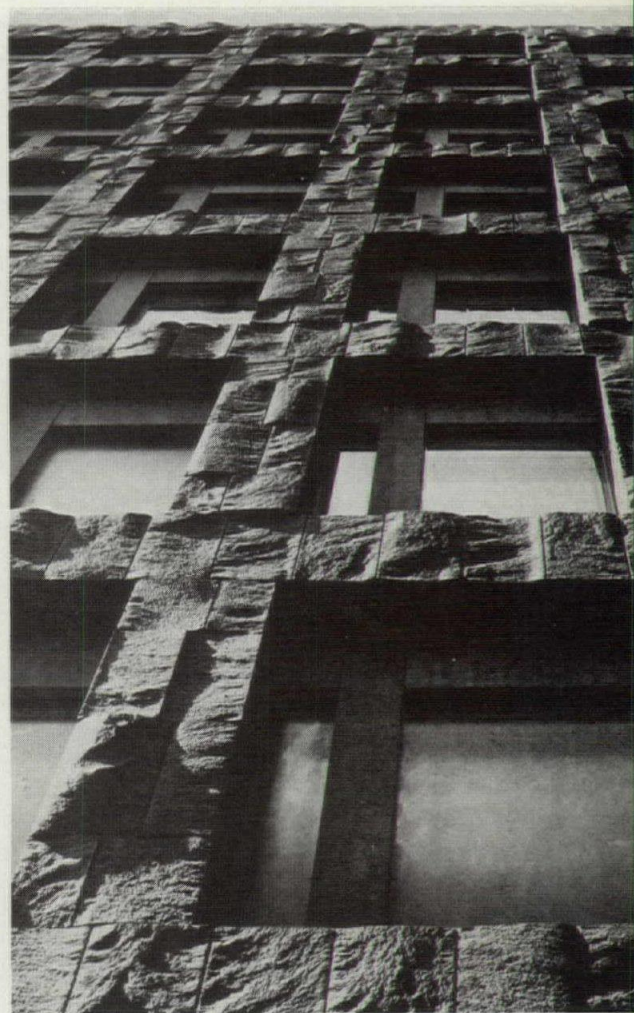
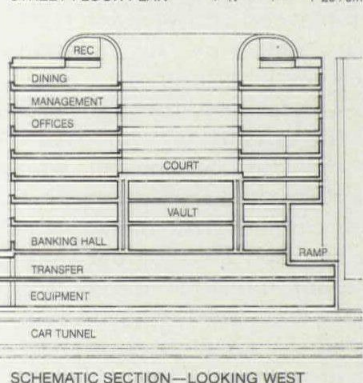
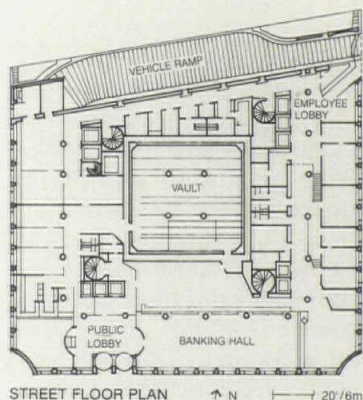
**A monumental public building by the late architect Peter Celsing hews to Modernist design principles, but emphasizes sensuousness of materials and exceptional craftsmanship.**

"None of the forms, materials, or solutions we adopted were facile," reports Jan Henriksson, the associate who carried this building through to completion after Peter Celsing's death in 1974. Rich and idiosyncratic, unlike even Celsing's other work, the National Bank of Sweden fits into no neat architectural category. Completed in 1976, it is little known outside Scandinavia.

The palazzolike structure is not an isolated public monument, but part of a larger redevelopment effort and product of a program to rehouse several national offices. Since 1906, this central bank had shared one of Stockholm's islands with the national parliament. When adoption of a one-chamber parliament in the 1960s demanded a new, larger assembly hall, the bank was displaced; it was ready, in any case, for larger, more modern quarters in the commercial banking district. Coincidentally, the city was ready to redevelop a parcel of several acres at the edge of that district, just south of the Hötorg complex, Stockholm's one 1950s adventure into highrise slabs and elevated plazas. A 1966 architectural competition for this parcel, including the bank in its program, was won by a team headed by Celsing.

The Celsing scheme countered the megastructure mania of the time by emphasizing the disparate elements in the program. A broad square, the new Sergels Torg, makes a fitting foreground for the highrise blocks, and across its south side stretches a low, glass-walled "culturehouse," bridging a street. Appended to its long, blank south wall are two structures that complete the transition back to the traditional scale and street pattern that Stockholm had chosen, by then, to maintain. One of these buildings is the shiny-metal-skinned theater designed to serve as a temporary parliament (as it does today, while the new one rises); the other is this stone-girt bank. These highly disparate but complementary buildings, by the same architect and completed in the five-year period 1971-76, not only return to the city's prevailing texture, but restore the appearance of incremental growth—a step that shows prescience on the part of architects, clients, and public officials.

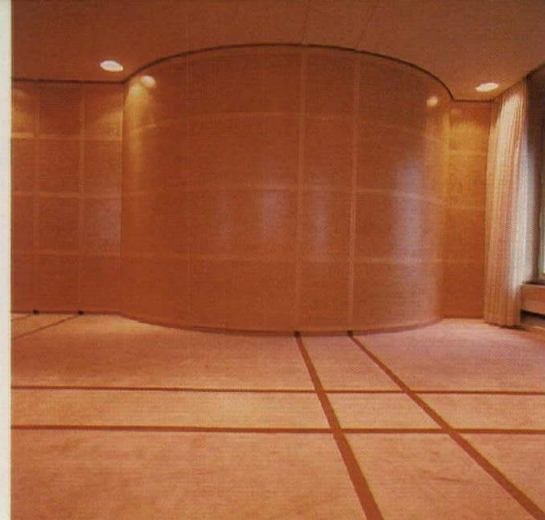
The bank is sited at the north end of a long, wedge-shaped square, Brunkebergstorg, and from the competition design onward, its form replaced the bulk of the Telegraph and Telephone Building that preceded it. The



squarish site plan, exposed on three sides, suggested a central court scheme. A vehicular tunnel to be built under the site limited underground space, and that squeezed the required volume up under the main roof line, which could be no higher than the balustrade on the Royal Palace. The result was to aggregate the bank's vaults in a three-story cube at the base of the central court and to push some of the generous employee recreation facilities up into a penthouse surrounding rooftop mechanical and elevator equipment.

Although this general *parti* never changed, the façade was one of several key elements that changed radically over the bank's eight-year design period. Initially conceived as





Copper-clad folds of penthouse roof cascade down walls of central court (above), forming light-catching projections. Circulation area of restaurant floor (left, above) surrounds court. Circular ceramic tiled soffit around the square court suggests sky and amplifies daylight. Inlaid birch wall of large conference room (right, above) responds to circular dining room behind it; planning grid marked on wall continues in pattern of carpet and molding on ceiling.

largely glass set in a prominent grid of cast iron, the exterior wall evolved into a deep, stone-faced screen—perhaps responding to greater concern for energy, but also recalling earlier rusticated granite bank walls in Stockholm, including those of the central bank's former home.

Once stone was considered, Celsing went to work expressing the natural, nonmechanical quality of the material. A way was found to split the very hard black granite of Skåne, in southern Sweden, and the wall was designed to allow for random projections within a regular joint pattern, which looks irregular because of its asymmetry. In the openings in this archaic-looking grid are placed smooth mullions of the same granite, offset to provide for large fixed glass and smaller operable windows. The effect is of two grids, a coarse outer one and a more refined inner one, imperfectly superimposed, as if they slipped. The material may be ancient, but the aesthetic is of the 1960s.

Celsing's stone envelope had to be notched at the ground-floor corners to satisfy the local traffic engineers, and even this accommodation has been turned to advantage. By making one notch higher than the other, a balance was struck that took into account the perceptible slope of the ground and the off-center placement of the main entrance. By making the corner niches smooth and cylindrical, Celsing related them to the stainless steel cylinders that turn to seal off the revolving doors when the bank closes—both features hinting at the cylindrical elements inside. (Celsing's hope to locate fountains in the curved niches—spare Modern versions of Rome's Quattro Fontane—was not to be realized.)

The off-center main entrance, severely elegant but unembellished, hints as well at the practical, informal layout of the interior. Behind the civic statement of the façade is a working place—albeit an elegant one—not a monument. The entrance lines up with one of the elevator banks, which occur at each corner of the square court. The public banking hall occurs in the traditional place—front and center—but has the private scale of the office floors upstairs.

Interiors here are antithetical to the exterior: light in color, smooth to the touch, variegated in hue and pattern. The black granite reappears—smooth-faced—only in elevator bank walls and corridor floors, where it is overlaid with carpet runners of muted yellow.

Typical walls are of off-white plaster, ceilings of hardwood-faced perforated panels, floors carpeted in soft yellow. Furniture is generally in natural birch, with black leather upholstery. Even the most mundane areas are finely detailed and furnished. In some special areas—on walls of lobbies and private dining rooms, on the cylindrical columns that line principal corridors—the plaster is upgraded to *stucco lustro*, a plaster colored while still damp, then polished with hot irons; this appears in off-white, cream, terra cotta, and in a fresco by Olle Nyman that surrounds a circular dining room. Stronger colors appear in tapestries of the banking hall and management floor and in the various ceramic tile surfaces of the upper restaurant and recreation floors. The vivid green enamel of the elevator interiors hints at the natural greenery of the penthouse story.

#### Rooftop release

The penthouse recreation floor was originally conceived as a loft open to the restaurant floor just below, but evolved into a separate story, linked by a grand stair. (The main elevators stop at the restaurant level, with equipment at penthouse level.) The provision here of a café, gym, pool, and sauna comes as no surprise to present-day Americans, but the festive quality of the spaces and their material richness are unexpected—if not in fact unprecedented. (This is Sweden, after all, and employee conveniences here include a chilled room near the employees' entrance for food bought at lunch hour—not to mention decide-for-yourself working hours.)

The penthouse was designed through close collaboration of the architects with artists Sivert Lindblom and Ulrik Samuelson, who helped determine forms and spaces, as well as colors and patterns. Similarly, the fresco artist Olle Nyman was involved in color decisions throughout the other interiors. Except for the several major tapestries, which seem strangely unrelated to their settings, the building seems a textbook success in the effective involvement of artists.

When it first appeared in the design, the penthouse had the form of an all-glazed barrel vault. But considerations of watertightness, acoustics, and sun control led to the final



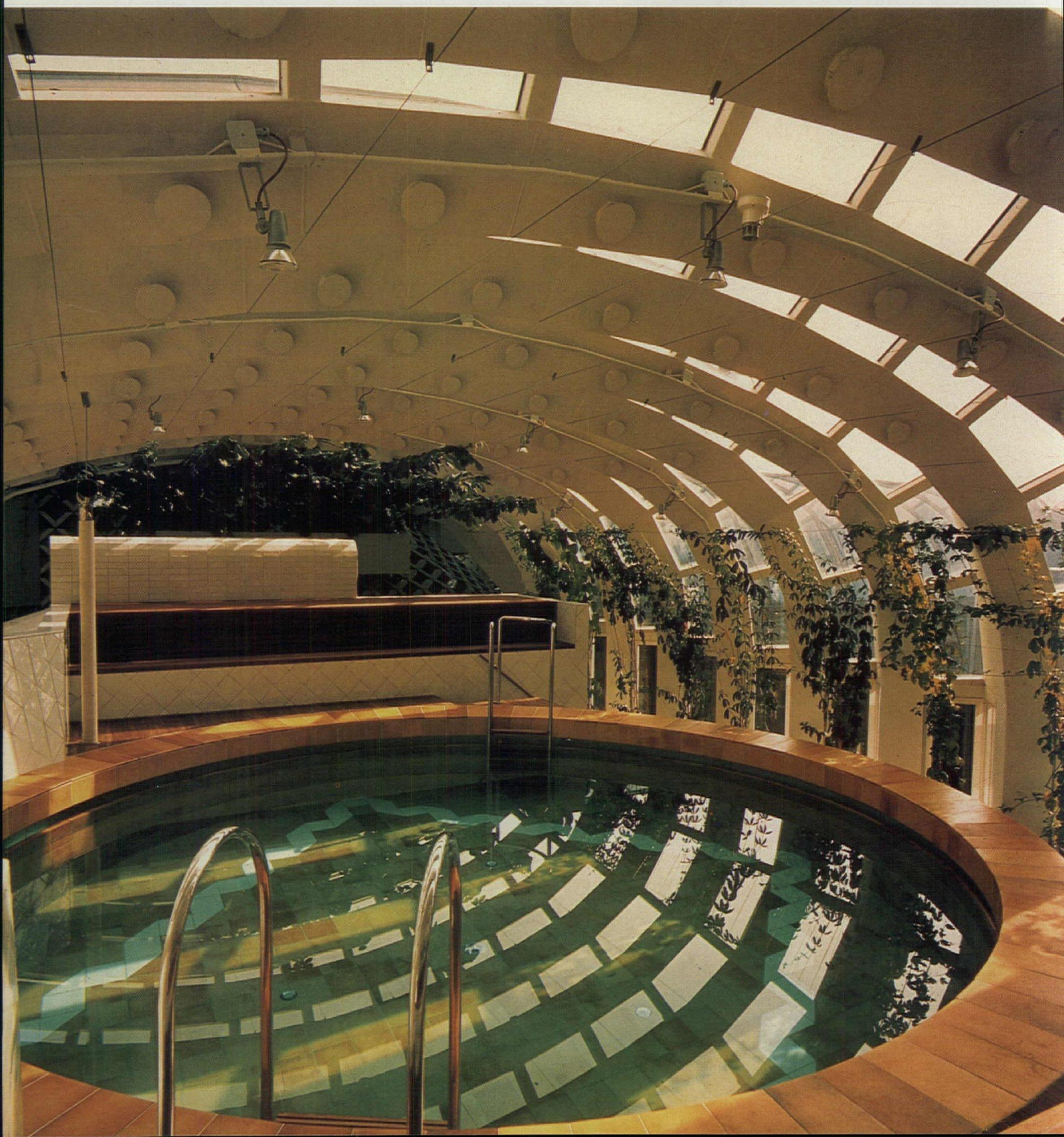
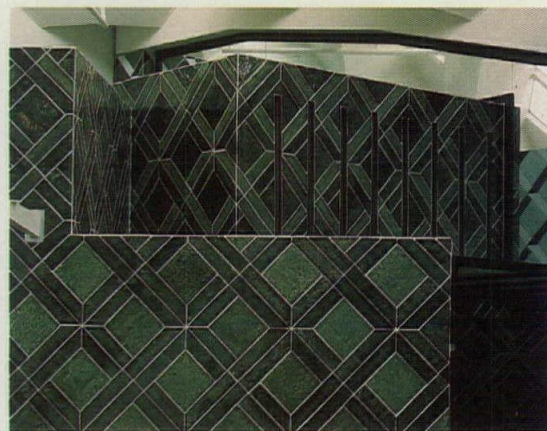
*Stair to recreation penthouse from restaurant floor (also visible opposite, top left) has massive birch balustrades that recall bank's own façade, among other precedents. Green tiled wall and vines seen at head of stairs typify space above. Also visible are typical hardwood-faced suspended ceiling and surfaces of stucco lustro (polished integrally colored plaster) in stairwell.*





## National Bank of Sweden

*Swimming pool area of pent-house shows variety of ceramic tile surfaces. Solid faces of pleated roof vault screen out afternoon sun and house small air ducts. Elevator and mechanical cores at four corners are housed in multifaceted blocks (right), clad in handmade Swedish tile.*



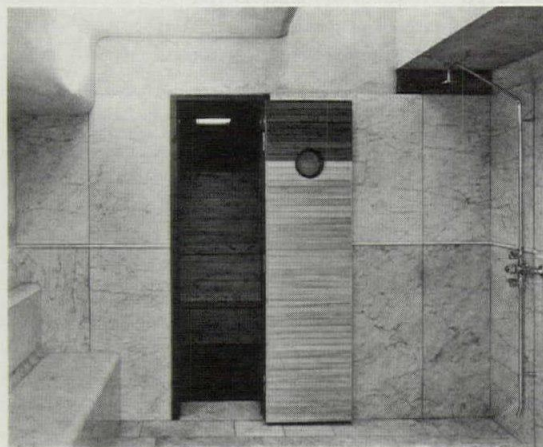
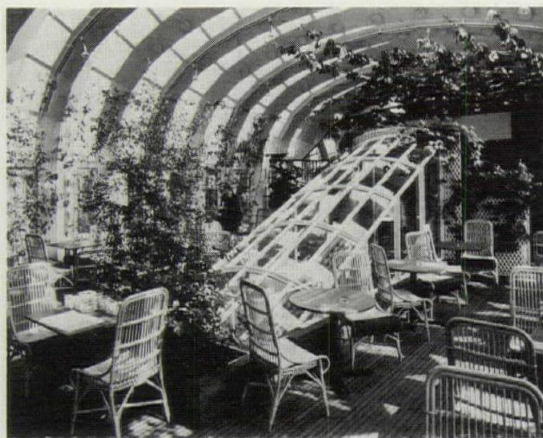


pleated form, with strips of glass tilted to the north and east and copper-clad bands screening out afternoon sun. To ensure weather-tightness, traditional copper-roof craftsmen were consulted on the details they were to execute.

The folded roof profile simply continues down the courtyard walls to form a lining of riprap bays. Potted plants in each projection, maintained by the bank, extend the greenhouse image right down to the courtyard floor, where a diagonal checkerboard pattern of pools and planting beds meshes with the wall angles. The treatment of the court as an extension, in form, materials, and greenery, of the employee penthouse emphasizes its private quality; even the metal used—copper—is distinct from the only metal that appears on the outer envelope—stainless steel.

This complete difference between two parts of the building that belong to the category of exterior wall points up Celsing's rejection of consistency as a design principle. His original competition solution stated this position on urban design, letting buildings conceived as a group take on divergent identities. Within this building, there is not the same kind of fragmentation; in fact, there is an emphatic wholeness expressed in the outer envelope. Inside that envelope, there is never any doubt what building you are in, but there are layers and rings of distinctions. The office floors have a low-keyed consistency (not illustrated in this article), but even they have rooms of different dimensions, with very different window walls, along their inner and outer walls. The penthouse introduces forms not hinted at from outside (except in long views, in which it appears as a low cap), with materials and colors that appear only in portions of the transitional floor just below.

The whole structure is an essay in dualities: inside vs. outside, city side vs. private side, regular form vs. improvisational exceptions, roughness vs. smoothness, darkness vs. light. At all points, the architecture engages us visually; all surfaces and details warrant inspection. If there is a major fault, it may be that too many aesthetic events have been worked into its rich fabric. But both the clients and the principal architect, the fatally ill Celsing, knew they would never have such an opportunity again. [John Morris Dixon]



*Café portion of employee penthouse (below left) has rattan furniture and teak flooring, playing up tropical cruise atmosphere. Vines and other planting were planned with Danish consultant Carl Theodor Sørensen. Roof deck outside penthouse commands fine view south over the city core and waterways. Sauna anteroom (bottom left) has archaic-looking marble slabs, with curved edges to pamper naked bodies.*

#### Data

**Project:** National Bank of Sweden, Stockholm.

**Architects:** Peter Celsing's Arkitektkontor: Peter Celsing, principal architect; Jan Henriksson, associate architect.

**Site:** almost square parcel at commercial center of city, fronting on square to south, streets on either side; angled building line at back.

**Program:** secure vaults and offices for central bank of Sweden; small public banking hall off street; extensive employee dining and recreation facilities. Total floor area, 25,000 sq m (about 270,000 sq ft). Basic form and siting determined by winning competition design for larger complex including three buildings and another public square.

**Structural system:** reinforced concrete; steel-framed penthouse; special tensioned concrete basement to span vehicular tunnel under site.

**Major materials:** black granite exterior walls; double glass windows with integral stainless steel blinds; granite, hardwood, and carpeted floors; plaster walls, with wood paneling, stucco lustro, and ceramic tile in special locations; hardwood-faced, perforated suspended ceilings; copper cladding on penthouse roof and courtyard walls.

**Consultants:** sculptor Sivert Lindblom and painter Ulrik Samuelson, design of employee floors; painter Olle Nyman, murals and interior colors; Karin Björquist, ceramic tile design; Carl Theodor Sørensen, indoor planting; Hjalmar Granholm, structural engineering.

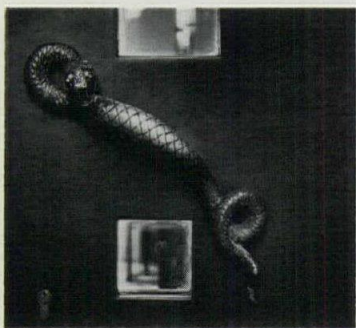
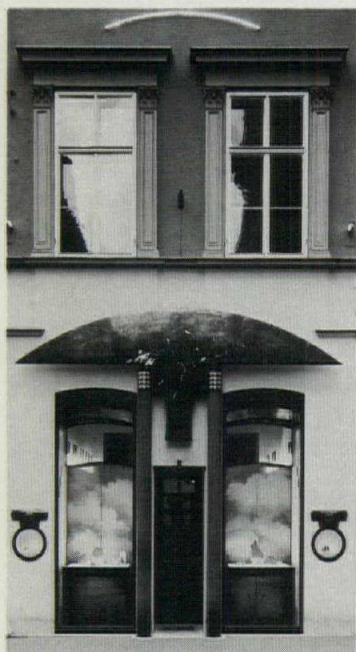
**Cost:** 130 million krona (1976); about \$32.5 million at 1976 exchange rate.

**Photography:** Per Bergstrom.



# Ornament is no crime

**The overlap of precious and fake materials and the invention of suggestive forms create a seductive environment in which to buy jewels.**



*The entrance to the shop (top) is framed by a wood and bronze device whose image is both arc-de-triomphe and guillotine. A neon arc over the second-floor windows ties the two stories together. As a handle for the square windowed door, sculptor Gero Schwanberg fashioned a grinning cast bronze serpent (above).*

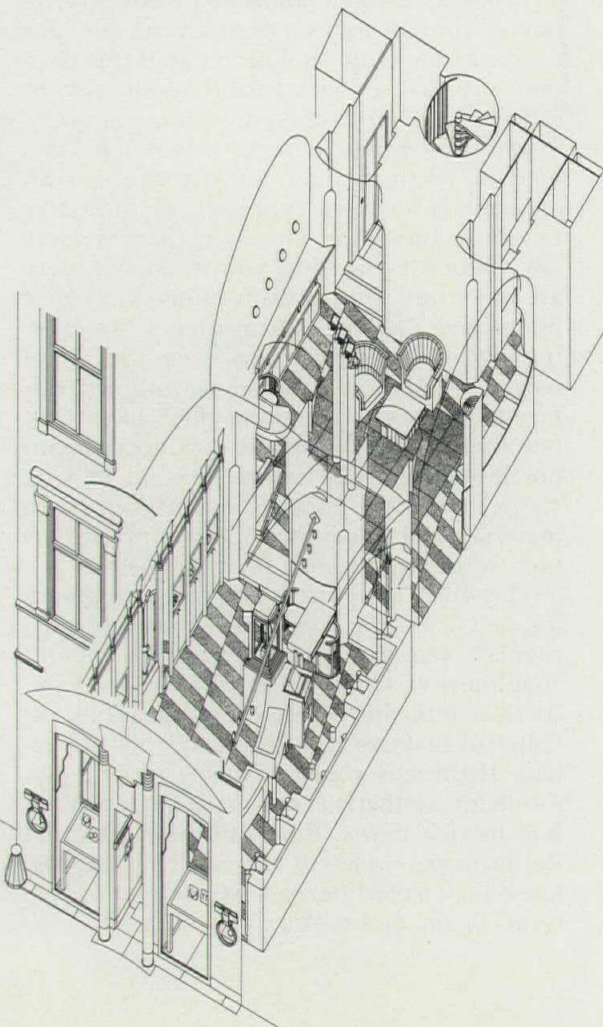
It is the Vienna of Freud, more than that of Loos, that must invade Hans Hollein's mind and quicken his work. In his series of Viennese travel agencies (P/A, Dec. 1979, pp. 76-79), haunting landscapes of fantasy and dreams unfold. In the less haunting but more intense Schullin jewelry shop, recently completed, primitive longings are encouraged within an aura of exoticism and shameless indulgence. In this shop, down the street from the 1910 Loos House and across from Hollein's more chaste candle shop of 1966, ornament is both message and medium.

Hollein has taken the basic shell of a 19th-Century building, corrected it slightly, and painted it white, and then has superimposed a clearly differentiated layer of elements not only functional but fantastic and luxurious. Paradoxically for a jewelry shop (and quite intentionally), he has used materials in flagrant disregard of their real value: Some are precious and some are common, but all, glowing or glittering, tease the visitor with an impression of wealth and mystery. Real marble is used in the patterned floor, but in the black-curtained backworld of the safe, under a mock skylight, plastic laminate pretends to be marble. Real bronze is used as an arch/guillotine over the entrance, but a headless "bronzed" African bust is in fact plastic. Burled wood encases the cabinets, but can be confused with the similarly colored, similarly patterned Verona marble beside it. Brass gleams golden on the winged glass cask holding the "crown jewels," while real gold coats nonskid metal treads serving as light reflectors atop the standards marking the visitor's procession inward.

Unlike many architects working in Vienna now, Hollein does not aim for low-key intervention. He does not attempt to invent work that blends into Vienna's historical continuum. This is especially evident in Schullin, where there is a clear distinction between the whitewashed shell of the existing building and the flash and glitter of Hollein's insertion. Viennese allusions are included, to be sure—the Hoffmannesque doors, for example—but they are points, not counterpoints. While Hollein's doctrines two decades ago sparked the anti-elitist, anti-Modernist movement responsible, he says, for the current Post-Modern activities in Vienna, he has

developed differently from his younger colleagues. Hermann Czech and Missing Link, for example, move slowly and painstakingly to etch details that add up to a sum reminiscent of—and sometimes at first glance indistinguishable from—vernacular Austrian architecture. Hollein's movements are more sweeping: his references, both architectural and psychological, are farther reaching, and the ambience he creates is intentionally gaudier.

The Schullin shop on fashionable Kohlmarkt stands in the two end bays of a commercial/residential building, of which the ground floor's central bays have been almost totally transformed by glazed shop windows. Only the bays at either end have retained a certain solidity, and the Hollein intervention only slightly violates the original solid/void relationship by penetrating the wall to provide a central doorway. This is flanked by the two large existing openings, both now serving as





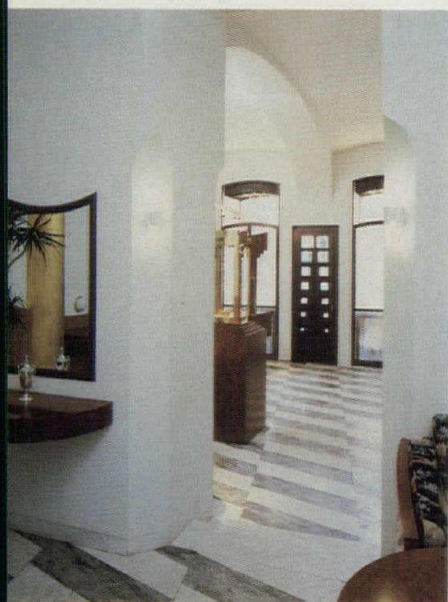
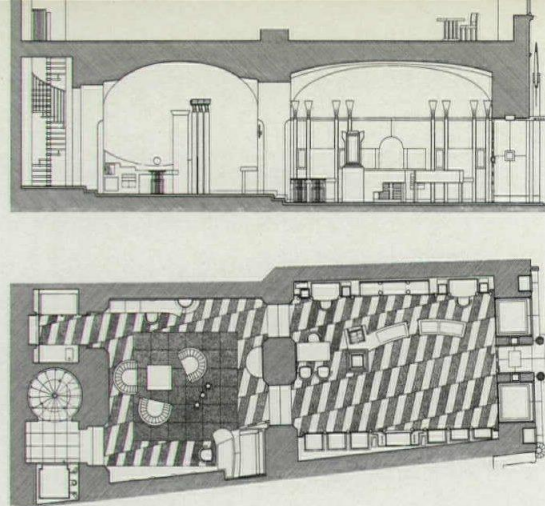
*In the richly patterned front room (below), cabinets are made of burlled African Wawona wood, mahogany poles carry lamps with reflectors of gilt metal treads, and the patterned marble floor encourages a diagonal progression, from the entrance door to the opening into the rear room.*



show windows. At either side, a tiny window has been added, a small orb emphasizing the preciousness of its contents, with a keystone above that suggests, overliterally, the cross section of a ring. A neon arc over the second story ties the two floors together (the upper floor is to become Schullin's exclusive show-room), but undoubtedly the strongest element on the façade is the wood, brass, and bronze door frame—a triumphal arch and

primitive weapon, Napoleon's hat and Hannibal's hatchet. The wood poles are each single trunks hollowed to minimize cracking. Their tips are brass rings and the symmetrical "blade" is oxidized bronze, from which flutters a red flag evoking imagery of blood from both Christian and pagan rituals. (Obvious political interpretations necessitated the flag's





removal during the recent election campaign.)

One enters—somewhat threatened but nonetheless intrigued by the “arch”—through the deep slot and past the door punctured in Hoffmannesque perspective; the large, square upper openings give views into the shop, and the smaller lower square windows provide some privacy for the shoppers. The door handle contradicts the rectilinearity of the door; it is a malevolent cast bronze serpent executed by sculptor Gero Schwanberg.

Inside, one moves through a long, marble-floored front sales room whose flanking rows of light standards and diagonally patterned floor encourage the progression to a squarish back room where the sparsity of pattern, the upholstered furniture, and the symmetrically curtained openings slow one's movements. The ultimate sanctuary is a second-story showroom, carpeted, lush, and exclusive (but not yet complete).

The front room's polished finish is pulled tightly across a savage heart: Its floor beats in a syncopated rhythm, its cabinets reveal the reddish glow of the root of the African Wawona tree, and its mahogany-poled, gold-plumed lamps flank the space like African tribesmen lining the parade route of a visiting monarch. Clear mirrored strips create slender patterned cross-axes, blocked by white marble pyramids.

The first room, primitive, gives way to a second one as ghostly and ascetic as a Roman priest. The openings between them are high and narrow, and their corners are carved away, in traditional Viennese manner, to form pointed reveals and to insist upon the thickness of the enclosing cavern. Through the principal opening one sees more light standards, but these are different from the earlier ones. There are but three of them, diagonally placed, and they are not ruddy, nor of wood, but are white faux marbre. Their heads (industrial lamps) do not flare but, from their heights, bow in priestly humility, while their “halos” cast light upwards to the vaulted ceiling. Beyond these three attendants, one glimpses the tall black curtains shrouding the ultimate openings, one to the upper floor, one to the safe.

Once in the second room, one is invited to rest, either in the chairs grouped upon the central square of white marble flooring, wrested from the movement of the actively



patterned floor around it, or on the corner divan, upholstered in a deep-colored pattern and framed in burlled Wawona. In the opposite corner, the jeweler performs his ministrations at a wood desk beside a wide, gold-leafed column, ritualistic in implication and functional in fact—it is an air duct. Both wood corner elements—the divan and the

*Looking towards the front room (top) and back room (above), through the opening with cut-away corners.*



*In the back room (below), a few richly colored items float within a white space. In the left corner is the jeweler's desk with a gold-leafed column (air duct) at its side; on the wall between openings is a mirror "curved" in false perspective; and at the right are three diagonally placed faux marbre poles, topped by industrial lights.*

#### **Data**

**Project:** The Schullin Jewelry Shop, Vienna, Austria.

**Architect:** Hans Hollein. Collaborators: Wolfgang Schoeffl, Manfred Bukowski, Erich Pedevilla. Sculptor: Gero Schwanberg.

**Client:** Schullin Jewelers.

**Program:** ground-floor shop, connecting to the second floor to be completed as a showroom. Cellular used in part for the security system. Located in the end two bays of a 19th-Century building. Electrical work completely redone.

**Major materials:** Wawona wood veneer; solid mahogany; solid oak; carrara, verona, and bardiglia marble; marble-grained plastic laminate; brass; oxidized bronze, cast bronze; moonstones; gilded aluminum; gold-leafed steel; chrome plating; alcantara (ultra-suede).

**Costs:** \$360,000, plus \$10,000 gems supplied.

**Photography:** Gerald Zugman.



desk—seem to hover rather hesitantly in the large, white space.

In Schullin, Hollein creates a world of fantasies—of richness, of primitive desires, and finally, of reassuring holiness. Gems have awed savages and adorned monarchs, and here, in a small shop in Vienna, where the differences between real value and fakery are blurred, gems arouse and then assuage the consumer passions of burgers who become, via pearls, angels. The complex subconscious

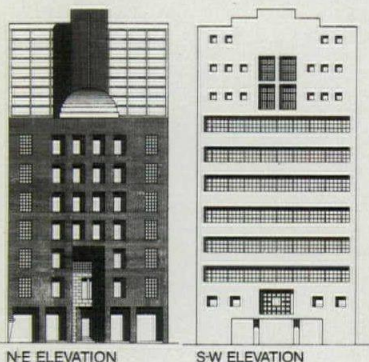
process involves inspiration, ritual, pretense, and moral reassurance. Through the canny employment of rich and common materials—using both silk and sows' ears—and the invention of curious forms from psychological netherworlds, Hollein has produced a setting ideally matching and fostering the process. [Susan Doubilet]



# On writing architecture

Alan Colquhoun

Agrest and Gandelsonas, who have been well known for their critical texts, have produced with Feferbaum Naszewski their first major building, which is in itself a critical text, in both its methods and materials.



*Building 1 (right) is actually two buildings. A low, massive urban palazzo is set in front of a tall, light curtain wall structure. The contrast between the two traditional urban types is heightened by the use of materials: stone, rough and smooth brick for the lower building; ceramic tile facing on the stairwell; and glass for the taller portion.*





## Introduction

In the following analysis, Alan Colquhoun explains how a building might be seen as a kind of "text" when conceived in the way that Agrest and Gandelsonas produce architecture. As a painting can be seen as painterly, the architects themselves have referred to their work as "writerly." By this they mean that in addition to concerning itself with the outside forces that inevitably come into play in the production of architecture, be they economic, political, technological, legal, symbolic, or metaphoric, it must also concern itself with the autonomous, self-referential aspects of architecture that are endemic to it and to nothing else. Like any other language, architecture has both a semantic and a syntactic dimension, and it is the understanding of how these work together, and the analysis that produces critical discourse, that interests Agrest and Gandelsonas. Because they believe that Modern architecture has forgotten the city, they take the urban arena as the source for this discourse. It is here, they believe, that a new vocabulary will arise.

The apartment building shown here, which was constructed exactly as originally designed in 1977, is the first of four "urban fragments" to be completed in the Medrano district of Buenos Aires. In designing the building, a low, massive block with punched windows has been set in front of a curtain-walled tall slab, thus juxtaposing two traditional urban types. The loggia and entrance have been exaggerated and drawn at the urban rather than the traditional residential scale. The conventional system of base, shaft, and crown has been reordered to emphasize the urban quality of the base. And to clarify these operations, surface materials such as smooth and rough-laid brick, glass, glass block, and dark tile have been juxtaposed for emphatic effect. Thus, as Colquhoun explains, a new vocabulary and meaning are derived through the transformation of aesthetic codes. [David Morton]

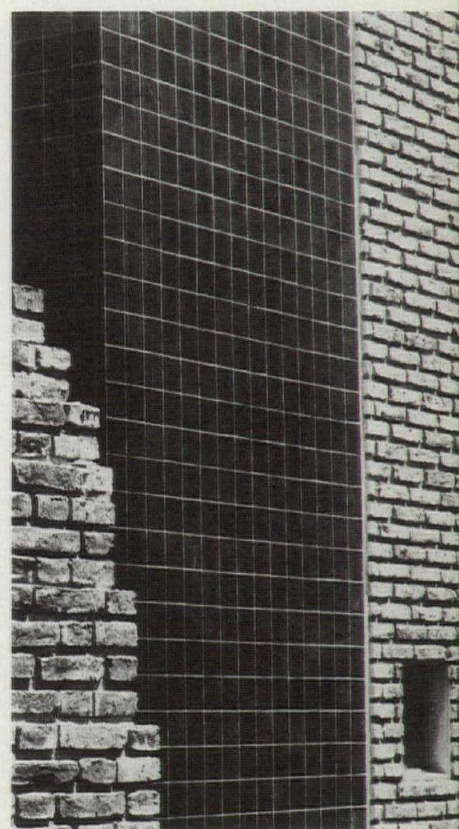
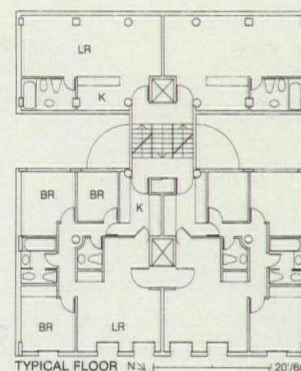
## Building 1

The work of Agrest and Gandelsonas is unique in the way it attempts to build a bridge between creative design and critical discourse. Like those of any other architect, their designs can be approached without the

support of theory, but the close connection which they themselves make between design and criticism suggests that a knowledge of their theoretical writings may help towards an interpretation of their buildings.

Their theory—which, of course, is itself subject to "interpretation"—seems to depend on the assertion that, for the contemporary architect, there can no longer be an unreflective relationship between form and meaning. Meaning has to be created by the conscious transformation of existing aesthetic codes, and every such transformation involves an act of criticism. For Agrest and Gandelsonas, the historical type has significance only to the extent to which it is transformed by this critical discourse. Though all architects since the 15th Century may be said to have worked in this way, it was not until the late 18th Century that they ceased to operate within a tacitly shared cultural universe of meaning and began to be confronted with a choice of codes. Agrest and Gandelsonas do not accept that Modernism changed this situation, though they do imply that the modern architect is now alienated from history in a special sense and that this forces him to try to penetrate beneath the surface of the codes to their hidden ideological implications. Architecture cannot be considered as an autonomous practice; every architect is implicated, consciously or unconsciously, in the political and social content of his work, and should to some extent be involved in a process of demythification. This makes it impossible that his work will achieve the reassuring quality of completeness traditionally demanded of architecture as an art. Agrest and Gandelsonas do not say that there is no difference between design and critical discourse, but rather that it is necessary to think of design as a process in which criticism and *desire* coexist as in a state of unstable solution. Desire works on the sedimentations of meaning that come down to us from the architectural tradition (a tradition that includes Modernism). Criticism attempts to unmask the extent to which this tradition is used to "naturalize" ideology. Conceived of in this way, a building becomes a kind of "text" which is more the result of a play between contradictory forces than of the unifying artistic will of the designer—a text which will simultaneously seduce and alienate the observer, distancing him from the very forms that give him pleasure.

On the basis of this theory one would not expect in the work of Agrest and Gandel-





sonas a total resolution of the multiple problems facing the designer. Rather, one would expect to find different "languages" juxtaposed as in a collage.

The building illustrated here is No. 1 of a series of four urban projects, one of which has been built and two of which are under construction. These four designs are variations on a single theme, each building in some way encapsulating a particular problematic concern of the modern city. In a sense, each building acts as a metaphor of multiplicity, conflict, and discontinuity.

In Building 1 this conflict is expressed in the basic duality of the front and back blocks, which are treated as typologically different buildings, although each has the same function. This solution is derived in part from an interpretation of the building code. Instead of designing a single building that would either be sited away from the road or express in a literal way the set-backs required by the building code, the architects have designed a front block that conforms to the traditional typology of a building facing the street, and a higher back block that has the curtain wall and strip windows associated with a typically modern freestanding tower. The front block corresponds to a palazzo, with regular vertical windows and a central three-story porch recessed into the surface, and is faced with traditional materials (local brick). The play of "languages" is further developed in the back block whose reverse façade is also in brick and is pierced with both strip and punched windows, and a large "studio" opening in the center.

In spite of its Classical overtones, the front block does not refer to a specific local context. The "context" is that of a generalized memory of urban building, and is no more concerned with the local Neoclassical vernacular than were the late 19th-Century buildings in central Buenos Aires, which aimed at a cosmopolitan architecture of Parisian extraction. (This building might rather be seen as making references to New York with its violent, collapsed, and surreal juxtapositions of scale and style.)

The potentially overmonumental porch is modified by an aedicule in white stone facing that both reduces it in scale and provides it with the embellishment traditionally associated with entries.

The public foyer is given the same redundancy as the porch, chiefly by the presence of a small "baroque" double staircase. Thus, as they enter the building, the residents of a run-of-the-mill co-op are given the pleasure of inhabiting a palazzo and are able to connect their daily experience with that of a now half-forgotten and socially somewhat incongruous tradition of high bourgeois architecture. This stair is placed at the junction between the two buildings, precisely at the "impossible" point where they both confront and ignore each other. The visitor is led to a *piano nobile* over the stores in the back building before he ascends to the upper floors. This stair reconciles the two buildings, but at

the same time its centralizing function is in obvious conflict with the narrow, invisible, and residual space that separates them and that it tries to occupy.

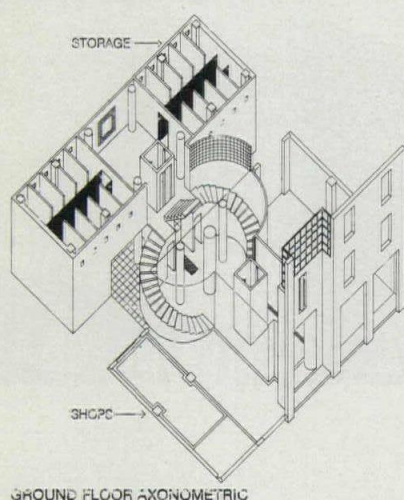
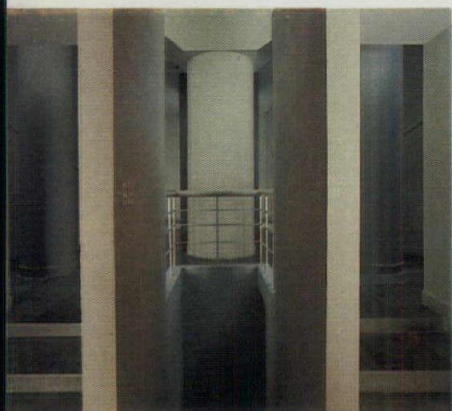
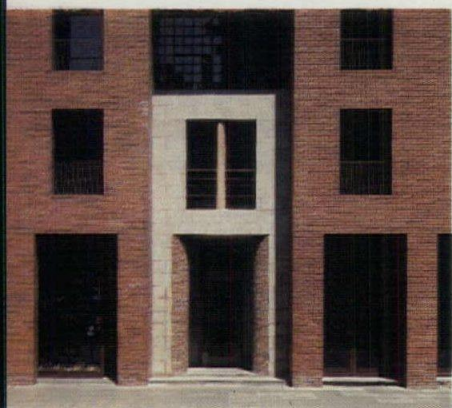
The potential bathos of the grand stair is avoided by the insertion of solid elements within the foyer—a huge, circular column impeding an axial approach, elevators, and screen walls. These elements give the foyer a feeling of compression and density and block any facile or kitsch reading of spacious grandeur. All these forms are presented in an abstract language somewhere between a stripped Classicism and Modernism.

Only the major features of this project have been described, so as to bring to the fore its dialectical and ironic qualities. In other respects, the building is very straightforward and, in its general classicising tendency, avoids any expressionistic exaggeration of conflict.

How does this building enlarge our understanding of the notion of a "critical" architecture in the sense given in Agrest and Gandelsonas's writings? It does not attempt to be the illustration of a *discursive* criticism and respects the difference between discourse and art. It does not depart from architecture's role, which excludes the possibility (that exists in discursive criticism) of a purely destructive statement. It is easy to produce a bad building, and a bad building proves nothing except the incompetence of the designer. But given that architecture is the creation of order, there is no exclusive definition of order that would eliminate disorder, complexity, and dissonance, and such qualities are related to life as well as art. By stressing these, architecture is inevitably making a commentary on a "reality" beyond itself.

It is in this sense, I believe, that the work of Agrest and Gandelsonas's architecture may be said to be "critical." It is a measure of their skill as designers that they have been able to achieve a building that alludes to the unresolvable contradictions of modern life, and at the same time is a modest, ingenious, and refined solution to the problem of adding a new building to the urban fabric. □

Alan Colquhoun is professor of architecture at Princeton University; his most recent book is *Essays in Architectural Criticism: Modern Architecture and Historical Change*.

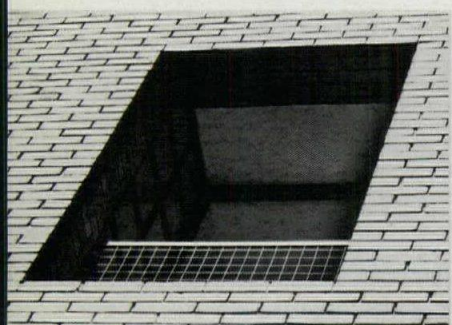




*The main entrance (facing page top) extends between ground-level shops (see axonometric, facing page bottom) to curving stairs leading to main lobby or to doorways under stairs that lead to gardens between the two buildings. An additional first-level stair (facing page middle, and also seen below) leads to basement.*



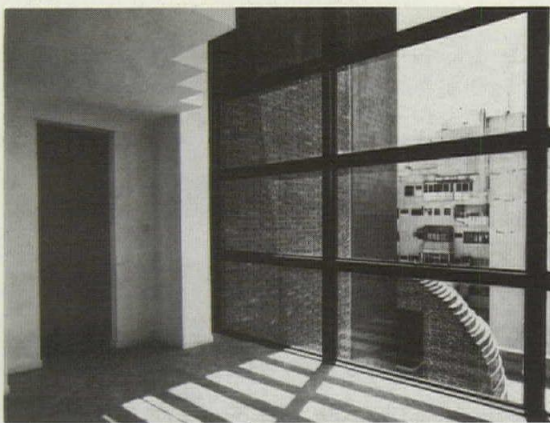




*The two-to-three-bedroom flats are in the front building, where inverted balconies (above) extend into the units. Studio apartments in the rear building have kitchens and laundries (not executed as shown in plan) at the northeast elevation, where strip windows occur (right). One-bedroom duplex units occupy the top two floors of the rear building; their living rooms (facing page) are beyond the curtain wall façade facing the rear of the front building, where the back of the dome and the tiled stairwell are clearly visible (facing page top).*







#### **Data**

**Project:** *Urban Fragments, Building 1, Medrano, Buenos Aires, Argentina.*

**Architects:** *Agrest and Gandelsonas, New York; Feferbaum Naszewski, associates, Buenos Aires.*

**Client:** *Medrano Corporation.*

**Site:** *a 3500-sq-ft flat urban lot with strict zoning conditions.*

**Program:** *apartment building of 12 2-3-bedroom units and two stores in front block, 14 studios and 2 1-bedroom duplexes in rear block.*

**Structural system:** *reinforced concrete foundation, columns and beams, and floor slabs.*

**Mechanical system:** *individual air-conditioning and gas-fired hot water units, central oil heating.*

**Major materials:** *concrete block walls, rough brick on party walls and dome, ground-face block at entrance, brick exterior facing, ceramic tile on vertical core, stucco interior, colored cement interior courtyards, marble lobby stairs.*

**Consultants:** *Casiraghi Associate Engineers, structural.*

**Costs:** *not available.*

**Photography:** *Roberto Schezen with Leverato.*



# International breed

**This 500-acre farm in England is owned by a Saudi Arabian prince and was largely designed by an American using many materials and methods from this side of the ocean.**

There is both an old and a recent history to Juddmonte Farm: its original buildings date to the 16th Century, but their restoration and the construction of new buildings derive from design attitudes and advances in stud farm design that were published in these pages a year and a half ago (P/A, Dec. 1981, p. 68). In the early planning stages of Juddmonte, James Delahooke, farm manager, and John Crew of Carter Jonas Chartered Surveyors, agents for owner Prince Abdullah, obtained the necessary planning approvals for restoration and renovation of an old dairy farm, and for adding new structures to an adjoining stud farm, both of which were acquired by the prince and now comprise the new farm. Simultaneously, they were looking at other stud farms throughout the world, and were most impressed in America, Delahooke reported, by the Gainesway Farms in Kentucky. This led to the commission of Theodore Ceraldi as design architect. Although Juddmonte today is the result of a team effort that involved the farm manager, the sur-

veyor, and the local production architects, Ceraldi's hand and craftsman eye are as apparent in every form and detail as they were at Gainesway.

Juddmonte, however, has a different function from that of Gainesway, which serves the single purpose of stallion farm to which mares are brought for covering (as it is called) and then taken away.

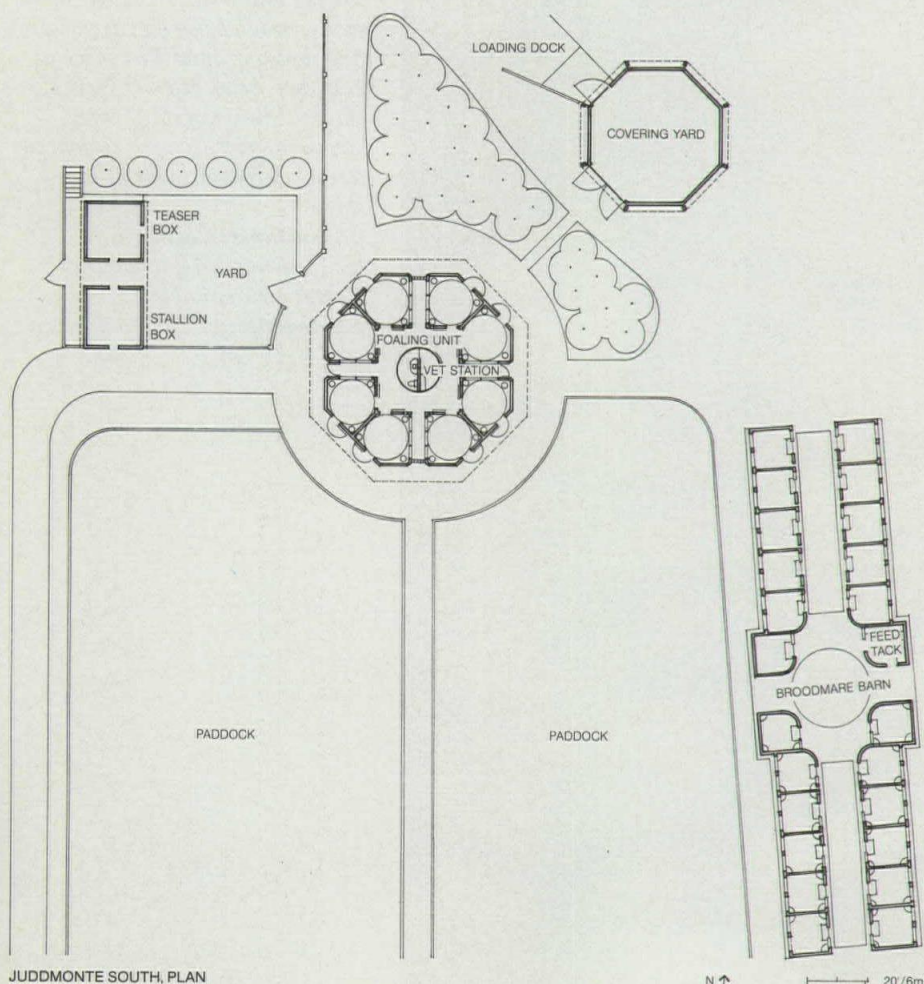
## Juddmonte South

Juddmonte South was an Edwardian stud farm formerly called Cayton Park. Its stables are unchanged and in use now, but new buildings have been added to turn it into a first-class thoroughbred bloodstock breeding complex. As the public half of Juddmonte, it is where mares of other owners are brought for breeding, with only one stallion, the American-bred 1980 European champion miler Known Fact.

At Juddmonte, in contrast to Gainesway, mares remain at the farm through foaling, so a new broodmare barn, a lunging ring/covering yard, and a foaling unit were needed. The buildings, which were to blend in with existing structures to give an appearance of being well established, are constructed of Northcott rustic brick facing on concrete-block bearing walls, with handmade Keymer brown clay tile on timber decking over laminated pine trusses and columns. African Iroko and American Red Oak are used for paneling and for the doors and windows, which have bronze and steel hardware.

An important factor in the stables, which are unheated, was proper ventilation. To achieve a draft-free environment, Ceraldi modified a system he had previously worked out at Gainesway. He designed an American style barn in which, at the pitch of the saddle roof, an inverted clerestory with louver windows is dropped from the ceiling along the main spine. Air entering under the eaves of each stall then goes directly to the louvers without passing directly over the mares. In each of the 23 14-ft-square boxes, interior walls are surfaced with Fibrocem, a resilient material used for squash courts, for protection of the horses.

For the temperature-controlled foaling unit, Ceraldi has brought to horse breeding the concept of the hospital nursing station. In an octagonal building, the eight perimeter foaling boxes are circular to assure that a mare cannot begin birth in an inaccessible corner. For safety, these boxes are also coated with Fibrocem, and with resilient polymeric



JUDDMONTE SOUTH, PLAN



*Juddmonte South is the private half of Juddmonte Farm, to which mares from the outside are brought for breeding. The broodmare barn (left) has an "inverted clerestory" inside for special ventilation. The foaling unit (seen at left of broodmare barn in photo below) is octagonal, with circular stalls inside for protection of horses. The original Edwardian stable (bottom) is still in use today.*







The buildings at Juddmonte North (left), the adjoining private part of the farm, date from the 16th Century. No new structures were added here, and all of the buildings of the former dairy farm have been meticulously restored as stables and farm offices (below). The office entrance (bottom, left and facing page) faces into the east courtyard, where some of the old stables have been converted for parking.

#### Data

**Project:** Juddmonte Farms, Berkshire, England.

**Architects:** Theodore M. Ceraldi, design architect; James Delahooke, farm manager and owner's representative; Carter Jonas Surveyors, John Crew, project manager, clients' agents and project managers; Holden, Vaughton & Partners, Architects, Michael Vaughton, Joseph Holden, Jeffrey Godwin, production architects.

**Client:** Areen Ltd.

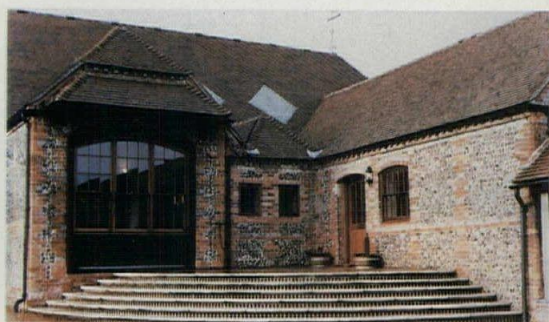
**Site:** two adjoining 250-acre farms on level ground.

**Program:** addition of broodmare unit, foaling unit, stallion box, and lunging ring/covering yard to Juddmonte South as public breeding farm; restoration of 16th- to 19th-Century buildings as private broodmare band of client, at Juddmonte North.

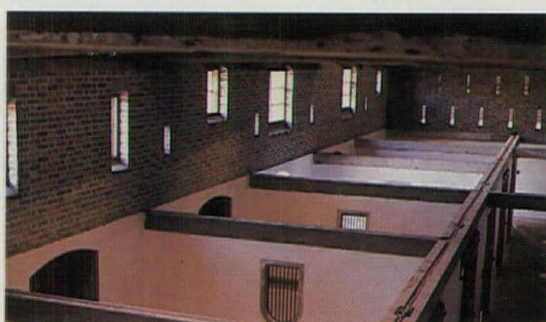
**Structural system:** reinforced concrete footings, brick and concrete block bearing walls, laminated pine trusses and columns at Juddmonte South; existing brick footings, new brick and reinforced concrete footings, brick and flint bearing walls, heavy elm timber trusses at Juddmonte North.

**Mechanical system:** electrical heat pumps/forced air, electrical

David A. Morton

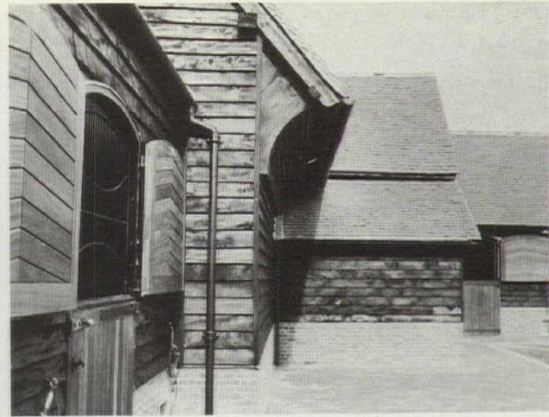
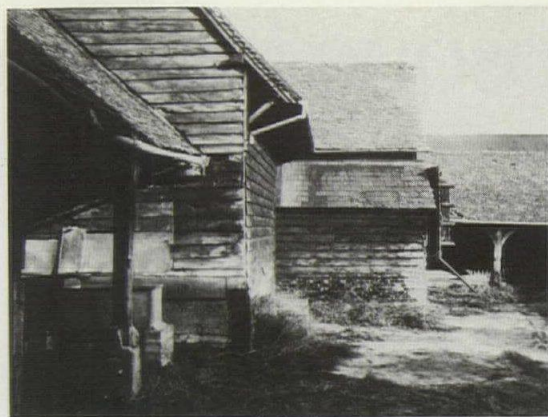


Eric J. Atkins





In the west courtyard of Juddmonte North (right), the wooden dairy buildings of the former Pudders Farm were completely dismantled and reconstructed as close to the originals as possible, although some portions were enclosed, and minor liberties were taken for aesthetic reasons, as seen in the eaves.



resistance heaters in foaling unit; oil-filled electric radiators in farmhouse and offices.

**Major materials:** local brick and concrete block cavity walls; cement rendered "Fibrocem" on interior walls; paving brick, tile, porous asphalt, and tartan flooring; American red oak and African Iroko doors and windows; laminated pine decking for ceiling and roof, and insulated glass ceilings; and clay tile roofing at Juddmonte South. Reused brick and flint solid walls, new brick, elm frame and trusses, elm clapboard, concrete block partitions, cement rendered "Fibrocem" on interior walls, glass tile and reused and new clay tile roofing, brick and asphalt paving, African Iroko and elm doors and windows at Juddmonte North.

**Consultants:** James Delahooke, Juddmonte Farm, landscape; Theodore M. Ceraldi, barns, boxes, foaling and broodmare units, support stores and offices interiors; Holden, Vaughton & Partners, farmhouse and office interiors; Andrews Kent & Stone, structural; Bovis Construction, mechanical; Michael Taylor, Ridge & Partners, cost; Dr. D. Sainsbury, Dr. R. Baskerville, medical; James Delahooke, grounds management and horses; Jim Cowe, stud groom; Martin White, secretary.

**General contractor:** Bovis Construction Ltd., Juddmonte South; Boshers (Cholsey) Ltd., Juddmonte North.

**Photography:** Theodore M. Ceraldi, except as noted.

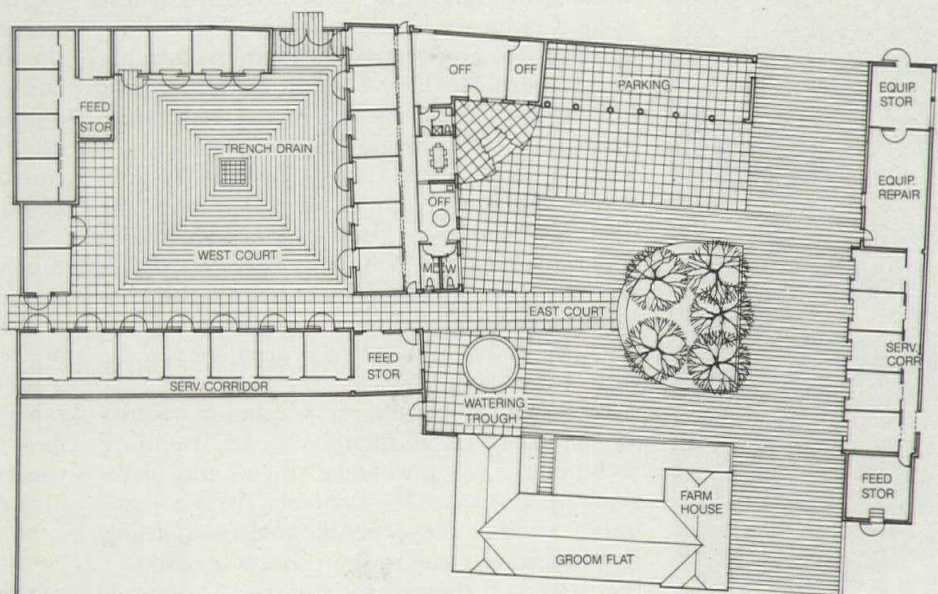
surfacing for cleaning. At the center of the building are the staff and veterinarian facilities, which have equal and immediate access to each box. The nearby covering yard is also octagonal, and this allows it to serve a double purpose as lunging ring.

### Juddmonte North

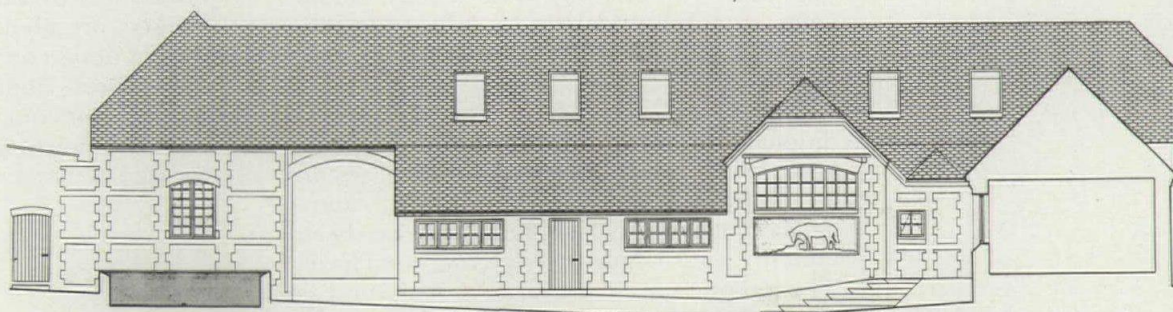
The 250-acre Juddmonte North was formerly a dairy farm called Pudders Farm, but it is now the private half of Juddmonte as home of the prince's own broodmare band. No new buildings were constructed here, but two, which were listed historic structures, were meticulously restored. A brick and timber-framed Elizabethan farmhouse was virtually rebuilt, brick by brick, as quarters for the farm foreman and second man, and a small wooden barn of 1833 was dismantled and rebuilt as a summer home for Known Fact. But the main buildings of Juddmonte North are the two traditional 18th- and 19th-Century

farming courtyards. One, which was constructed of brick and stone, has been renovated as administrative offices, while the stables adjoining it have been converted to garages and six stables enclosing a new forecourt. Behind this complex, a courtyard stable of dark timber accommodates the private broodmare band in 24 adjoining stalls. Here, as in the public broodmare barn, the inner walls of each stall are surfaced with Fibrocem for protection of the horses.

While the main concern at Juddmonte South was innovative design, particularly in the broodmare and the foaling units, that at Juddmonte North was thoughtful renovation and meticulous restoration. Each part has a timeless quality that shows concern for its surroundings, and the restraint evident throughout must contribute greatly to what *Pacemaker* magazine has called "a stud farm which can have no equal in the British Isles." [David Morton]



JUDDMONTE NORTH, PLAN



WEST ELEVATION, EAST COURT



# A mosque for Abiquiu

David Dillon

**Few people had heard of Abiquiu, New Mexico, until Georgia O'Keeffe moved there in the late 1940s. Now the town has a second notable attraction. Hassan Fathy's mosque, a compelling adobe structure that is the spiritual center of the first Islamic village in the United States.**

Dar al-Islam sits on a windy plateau overlooking the Chama River, a site once occupied by an Indian pueblo. The possibility of communion with an earlier adobe culture was only one attraction of the site. It is large (approximately 1200 acres), secluded, yet reasonably close to the craft centers of New Mexico. Since the goal of the Dar al-Islam Foundation, the major funders of the project, is to establish a center for the study and practice of the entire Islamic tradition, crafts included, Abiquiu seems an ideal location. Fathy's master plan, to be implemented over ten years, calls for a village of approximately 150 families, with a mosque, school, student dormitories, clinic and housing. A hotel and a center for Islamic crafts are also planned for the near future.

When Fathy first visited Abiquiu in September 1980, he brought along two Nubian masons to show local architects and craftsmen how to build arches, vaults, and domes from adobe, without using wooden forms (these skills disappeared centuries ago in the west, although we find vestiges of them in churches in Northern Mexico or at San Xavier del Bac in Tucson). Fathy discovered the techniques only in the 1940s, while designing the town of New Gourna, near Luxor. By constructing adobe vaults and domes, he eliminated the need for costly roof timbers, not to mention concrete and steel. While this discovery didn't save his New Gourna project from fading because of political and social reasons, it became the core of his architectural message for the rest of his life.

Building for people, he reminded visitors to the mosque, ultimately means building with people, using whatever forms and materials are immediately available. It is a communal art that allows people to do something for themselves, and in the process to discover the roots of their own culture. "Adobe is beautiful and matching with the environment," he told one group. "If this mosque had been concrete or steel nobody would come to watch and help. It is because it is mud, adobe, and adobe appeals to our feelings."

The 2260-square-foot mosque, traditionally the first building erected in an Islamic village, was completed last fall. It sits on a reinforced concrete foundation, upon which a concrete block stem wall has been built to create a uniform edge at ground level. The mosque's dramatic form, as sculptural as anything in the surrounding landscape, de-

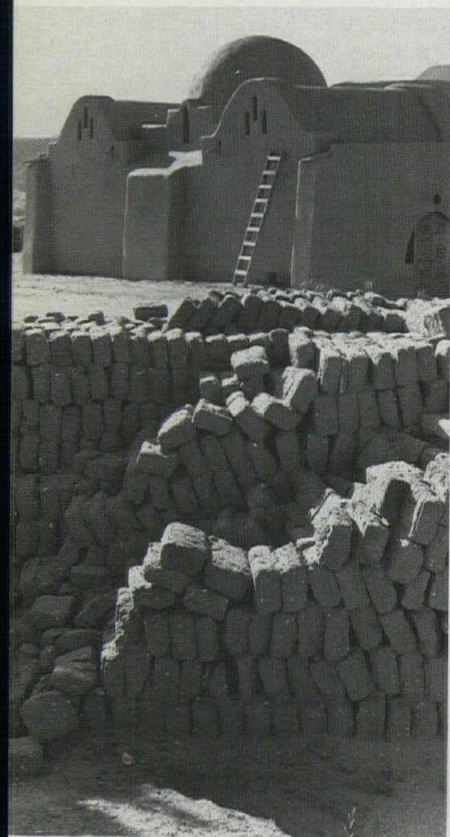
rives from the combination of Byzantine and Sassanid domes, barrel vaults, and large pointed arches.

In constructing the six Byzantine domes, the masons first erected arches on four sides of a 10-foot square, using a soft form of broken adobe bricks. Bricks were laid in the groins until they reached the tops of the arches, forming the base line for the dome. Strings were stretched across the diagonals to locate the center point; a vertical pole was then placed beneath that point, stretching to the desired height. More bricks were laid from the corners, coursing up to the center point of the full dome. The bricks used for the domes and vaults are grooved for better bonding, with those at the top of the dome being smaller and lighter than those used for the walls and arches.

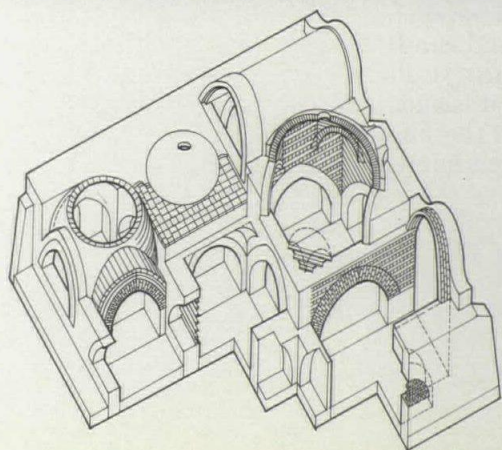
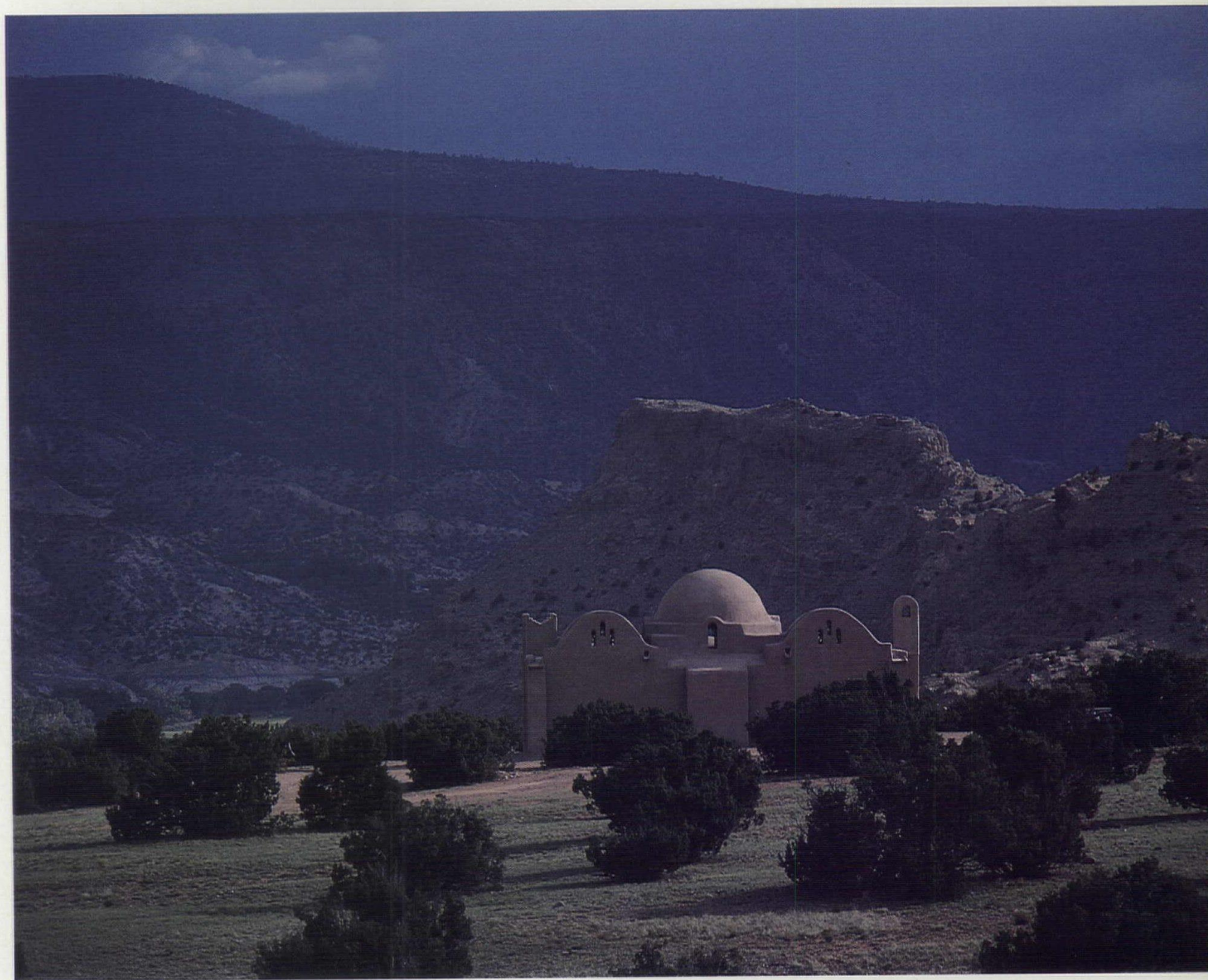
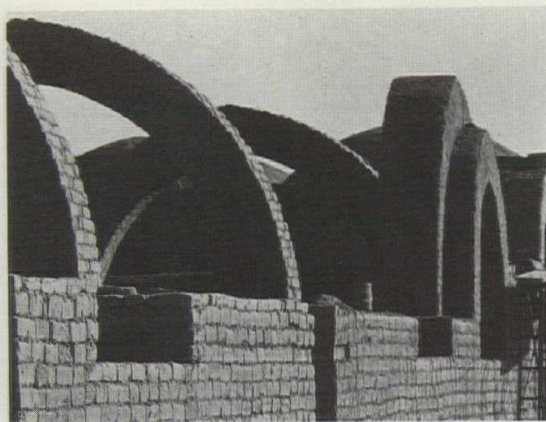
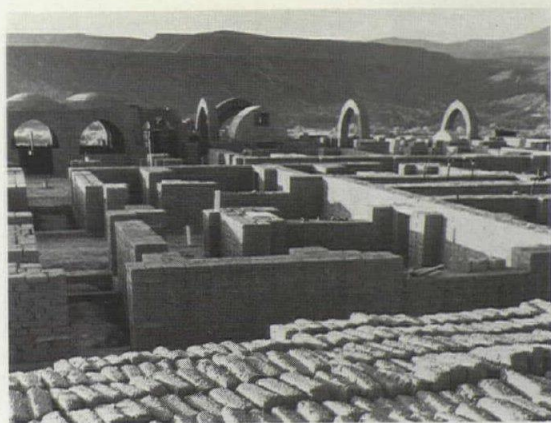
The large Sassanid dome, the mosque's most dramatic feature, started out like the Byzantine domes, with four arches surrounding a square and bricks laid in the groins between. But instead of beginning the dome at the first base line, the masons bridged the corners with half domes to form squinches. These transformed the square into an octagon, upon which the full dome could then be constructed. Surfaces were smoothed with a metal lath, then covered with adobe plaster. The flat portions of the roof between the domes were covered with several layers of broken adobe brick and mud.

The two barrel vaults were just as challenging technically. First, the masons constructed a back or "kick wall," against which overlapping courses of adobe bricks were laid until they formed a complete catenary curve. The vault then runs its full length without the use of forms, and includes sun shades at the ends.

So far the Nubian masons' pupils haven't been able to build arches and domes without wooden forms. They continue to use plywood forms, and one vault collapsed several times before completion. "The fault lies not with our mud but with ourselves," quipped Nuridin Durkee, president of the foundation and the head of design on the project. "The Egyptians have been doing this for 3000 years. We've only been doing it for two. Once we get the technique down, we'll be able to teach it to anyone who is interested."



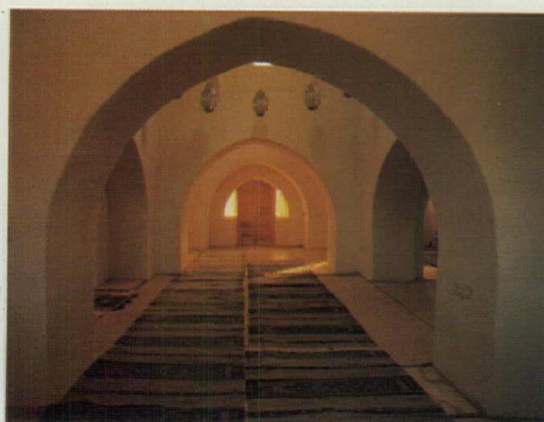
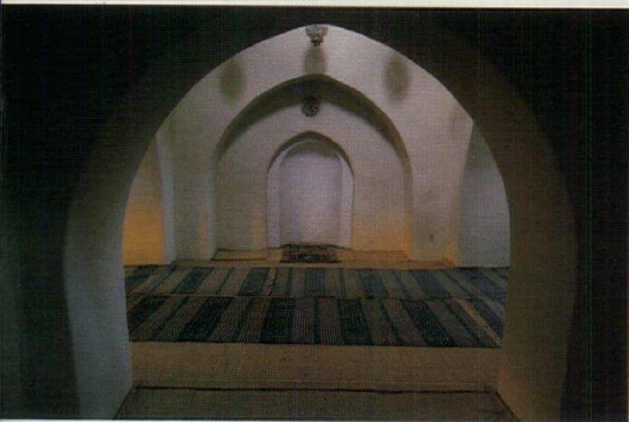




Construction has recently begun on the 17,075-square-foot school and library wing (39,475 square feet, including enclosed areas), which is connected to the mosque by a long, domed corridor. The plan for the second phase is a simple module: the small domed classrooms are all arranged around interior courtyards, giving students and teachers direct access to light and air. The same applies to the library; several courtyards have large seating areas at the center for reading and conversation. The new wing is unified visually by the repetition of vaults,

*Two vaults based on catenary arches flank the large Sassanid dome. Construction photos (top, left and center) highlight the dramatic forms of the arches. Adobe claustrawork in the outside openings (top right). The 42-acre plateau is part of a larger 1200-acre site with a view east to the Sangre de Cristo Mountain Range.*





Openings off of the main dome (bottom left) reveal arch after arch, with triangular openings in a grillework pattern to accommodate air circulation. Along one axis, the entry (top right), and along another, a niche (top left). Rich details, such as inlaid tiles and handworked lanterns, adorn the interiors.



#### Data

**Project:** Dar al-Islam Foundation Islamic Village Center, Abiquiu, N.M.

**Architect:** Dr. Hassan Fathy, al-Sabbah Institute for Appropriate Technology; design team, Nuridin Durkee, William Lumpkins; chief craftsman, Abdul Wadood Blackmore.

**Client:** Dar al-Islam Foundation.

**Site:** 42-acre plateau overlooking the Chama River valley and the village of Abiquiu in northern New Mexico.

**Program:** Masjid (Mosque), 2260 sq ft; Madressa (future school), 39,473 sq ft.

**Structural system:** reinforced concrete foundation, adobe walls.

**Mechanical system:** passive solar with electrically heated radiant floors.

**Major materials:** adobe (crushed limestone aggregate in lactic acid emulsion with cellulose long fiber added for expansion); ceramic and cement tiles, gypsum plaster.

**Consultants:** structural, Crescent Contractors (division of DAI); mechanical, Roger Bybee Engineering (electrical), Best & Co. (water system); landscape, The Green Man; interiors, Mun-sajim & Mutanaasiq.

**General contractor:** Crescent Leasing & Development; Ab-duRahman van der Straaten, general contractor and superintendent.

**Cost:** \$499,895 to date.

**Photography:** Cradoc Bagshaw.

domes, arches, and windows with exquisite claustrawork—adobe patterns within the openings.

All of the architectural detailing has been done by resident craftsmen, the advance guard of the budding Islamic crafts movement. Initially they will provide doors and clay tiles for the residents of Dar al-Islam. Eventually, however, they hope to market their crafts throughout the Southwest. "If we can achieve one-tenth of what the Islamic craftsmen have achieved we'll be pleased," Durkee says. The comment is more self-

effacing than necessary; the Abiquiu mosque, with its sculpted vaults and domes, and handsomely detailed doors and windows, is already a superb example of traditional Islamic craftsmanship—a building in which the line between architecture and art has been finely, even exquisitely, drawn. □

David Dillon is an architecture critic of The Dallas Morning News.



# How to

**Architects conceive of craftsmanship and achieve ornamentation in their buildings in various ways, from the collaboration with artists and craftsmen, to the application of off-the-shelf items.**

How can you create a cornice? You can paint it on; you can draw a template through wet plaster; and you can buy it by the yard from a manufacturer.

How can you panel a room in marble? You can build it up from relatively small pieces of three-inch-thick marble; you can imitate the look with paint or with plastic laminate; or you can use large ¼-inch-thick sheets of the real material, produced with a new, fiber-reinforced method.

How can you build a metal fence? You can collaborate with an artist who forges it himself, acting and reacting in harmony with the material; you can draw an abstract fence, which is then executed mechanically using modern industrial processes; or you can reclaim an old fence, discarded in the destruction of a superannuated building.

The awe inspired by the machine over the past century and a half has been overcome, in recent years, by the horror felt for its by-products—pollution of the air and water, dehumanization of urban forms, possible destruction of our entire civilization. Yet we temper that horror with a recognition of the machine's real benefits—the provision of a modicum of basic necessities to many (if fewer comforts to some). In architecture, there is no doubt that the hand-crafted quality of buildings has deteriorated drastically since preindustrial days, but we must acknowledge that we can choose from a different set of options. We must answer "Yes" to seemingly contradictory questions that involve hand- and machine-produced ornamentation: Do handcrafted items add a human element—a recognition of the balance between man and nature—to a building? Do building elements that reflect the indifferent but near-perfect nature of the machine reveal an indispensable part of reality? Can machine-made items that remind us of unaffordable hand-made artifacts induce spiritual comfort? Ruskin may be shocked by our casual and pragmatic approach, but society's morals and horizons have altered in realms other than architectural, as well, since his time.

In the following pages, P/A presents a selection of materials and ways of processing them, some new, some revived. They illustrate a wide range in the degree of the involvement of the designer in the actual production of his artifact. There is the artist/craftsman Albert Paley, whose original design alters as he himself interacts with the material. There is the architect Louis Mackall, who directs a traditional craftsman to execute his design (and often is himself involved in the execution). There is the architectural firm Heery & Heery that, through drawings and specifications, initiates a largely mechanical process that will yield the designed product. And there are those who specify and apply off-the-shelf items.

The section ends with a profile of Rambusch Company, the last remaining studio workshop from 19th-Century New York.

[Susan Doubilet]

*Recently published books that name sources for architectural ornament include Brent C. Brolin and Jean Richards' Sourcebook of Architectural Ornament: Designers, Craftsmen, Manufacturers, and Distributors of Exterior Architectural Ornament (Van Nostrand Reinhold Company, 1982); and Architectural Crafts, a handbook and catalog, by Bridget Beattie McCarthy in conjunction with the Western States Arts Foundation (Madrona Publishers, 1982).*



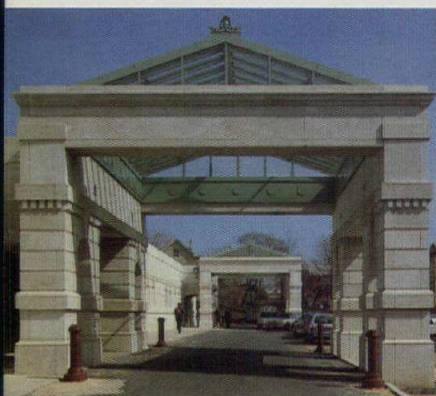
# Stone and terra cotta

The use of masonry ornament, mainly as replacement material in preservation projects, has increased among new buildings. With that has come a revival in the crafts associated with ornamental masonry and a growth in the number of companies producing it.

*The Bayonne Hospital uses cast stone to emphasize the entrances and public areas in the building's first floor, and to enliven the building's top, with its cast stone cornices, beltcourse, arches, and urns. While only a facing material, the cast stone convincingly imitates limestone.*



Photos: Tom Crane

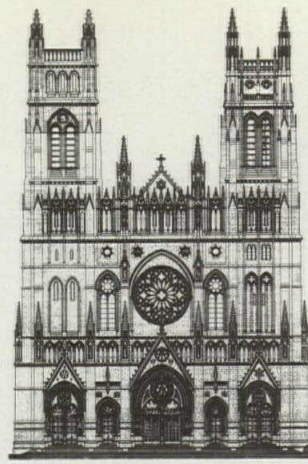


## Cast stone

Architects have traditionally used cast stone as a less expensive, although no less attractive, alternative to carved stone. Since the 1940s, cast stone, a form of precast concrete with a dense, finely grained surface, has had its ornamental potential realized mainly in restoration work; its use in new construction has varied little from that of ordinary precast trim.

The fabrication of cast stone differs slightly among manufacturers. They all use a rich, well-graded mix of cement, sand, and fine aggregate, adding commercial pigments to give it color and steel reinforcement to give it structural properties. Some manufacturers, though, key a mix of white cement and marble aggregate, one inch thick, to a gray concrete backup while others use the same concrete throughout. And some mix the concrete wet and cure it for about 18 hours in its plaster or rubber mold, while others mix the





*The two western towers at the Cathedral of St. John the Divine differ slightly in their detail, reflecting the variations common in most European cathedrals. The 152-foot towers contain over 24,000 carved blocks. The ashlar, moldings, and ornament are carved in the shop adjacent to the cathedral, under the supervision of master mason James Bambridge. The sculptural figures will be carved in situ.*

concrete almost dry, vibrantly tamp it, and immediately release the units to cure in a moisture chamber.

The Bayonne (N.J.) Hospital addition by Ewing Cole Cherry Parsky shows the decorative possibilities of cast stone in new construction. Classically detailed, the cast stone ornaments the entrance pavilions, base, cornice, penthouse and window surrounds of the building. The cast units, four inches thick with eight-inch-wide side panels on the corner units to give them visual depth, were laid with the building's brick veneer. Stainless steel anchors hold the cast stone to the concrete block wall, while dowels set into field-punched holes tie the units together.

Project architect John Blatteau insists that the cast stone veneer cost "no more than a fancy modern window and spandrel system. We simply decided, early on, to spend money where people would see it, in exposed cast-stone lintels, for example, rather than in spandrel beams hidden above ribbon windows." Blatteau praises the cast stone for making the hospital, which came in under budget, look more expensive than it was. "It's an easy technology," recognized as such by the contractor "who did not charge a premium because it looked different."

The only limits cast stone places on the ornamentalist is with deep undercuts or modeling, made difficult with reusable molds. That does not outweigh the material's advantages, however. With its pliability and textural variety, its resistance to atmospheric pollution, its minimal shrinkage, its simple installation, and its reasonable price (especially with large jobs requiring a number of repetitive units), cast stone should play a major role in the current revival of masonry ornament.

#### **Carved stone**

John Ruskin had stone carving clearly in mind when advocating that "when we build, let us think that we build forever." Carved stone, indeed, can last forever; unfortunately, few owners today have such ambition. But one that has is the Episcopal Church. At Washington's National Cathedral and at New York's Cathedral of St. John the Divine, the

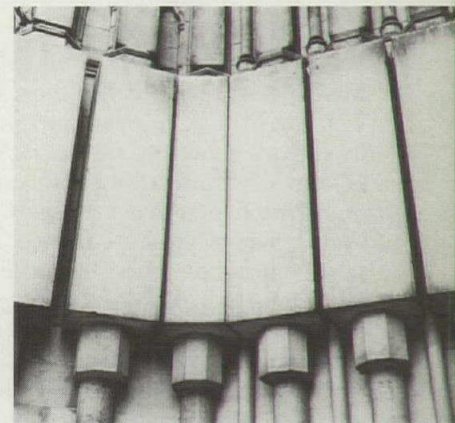
church has resumed construction of the buildings' stone towers, using traditional carving techniques and, in New York, training neighborhood youth in that craft.

The process of carving the standard buff Indiana limestone for the Cathedral of St. John the Divine is surprisingly precise and efficient. Working from 1/2-inch scale drawings, the setters-out draw full-size elevations and sections of the ornament, puncture the heavy paper along the lines drawn, and mark zinc sheets slipped underneath. Once scribed and cut, the zinc templates, along with a ticket describing the size and location of the stone on the building, go to the cutting shop. There, a cradle saw and two circular saws, all with diamond-tipped blades, cut into useful sizes the 10-ton blocks that are shipped from the quarry. Cutters use the templates to guide the removal of excess stone, using both pneumatic air hammers and hand chisels for the close tolerances required to complete a block. A planing machine cuts linear molds, while apprentices practice their chisel technique boasting or texturing the face of every block.

Each stone, after receiving a joggle or V-shaped groove along its side as a key for mortar, seasons or dries out in the yard. It is then lifted by elevator to the top of the tower; set, using a winch, onto its mortar bed; and anchored with galvanized ties to the solid brick wall.

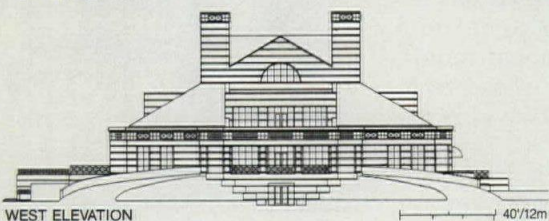
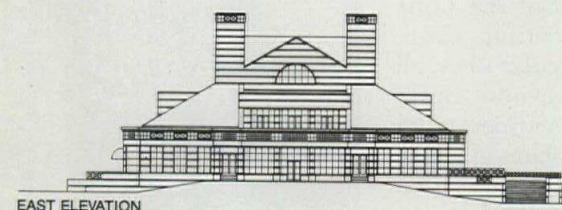
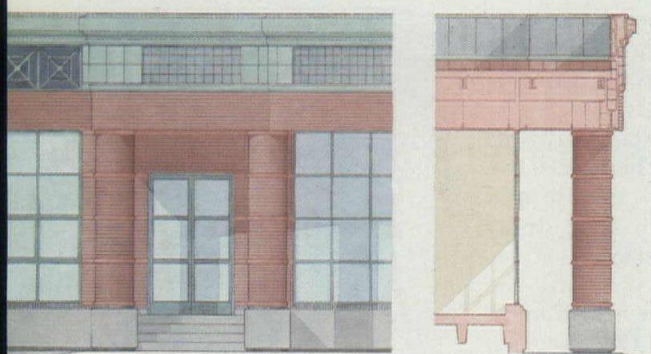
The physical limits of carved stone are not always understood by architects. Used to working with precast concrete, some will detail stone work with too few joints or in too large a block, driving up a subcontractor's bid. Others will choose the wrong kind of stone or allow its improper bedding, creating future maintenance problems. One way to bring the cost of carved stone down is to understand better its fabrication and erection. Another is to plan for its use early in the design process rather than as a last minute alternate.

Carved stone's durability and low maintenance make its high initial cost competitive with other exterior ornamental materials when that cost is spread over the life of the building. Convincing an owner of its value, however, takes more than a finesse with economics. It takes commitment to the aesthetics of carved stone and, if we take Ruskin's admonition to heart, to the interests of future generations.



Photos: Joyce Ravid





## Terra cotta

In 1914, terra cotta was called "the ideal building material of the 20th Century." And well might it have been had not our taste for its surface color and modeling waned with the advent of Modernism, and our understanding of its functional problems grown accordingly. Terra cotta's surface glazing, when poorly fired or when exposed to subsurface salts, can spall. The metal straps that hold the hollow clay units to the structure, if not galvanized or made of stainless steel, can corrode. And the units themselves, when allowed insufficient movement or when subject to impact, can crack.

Improvements in production methods have reduced the glazing failures. Although craftspeople still fabricate the plaster molds by hand, still hand-pack and hand-trim the unfired clay, and still judge by eye the composition and amount of slip sprayed on each

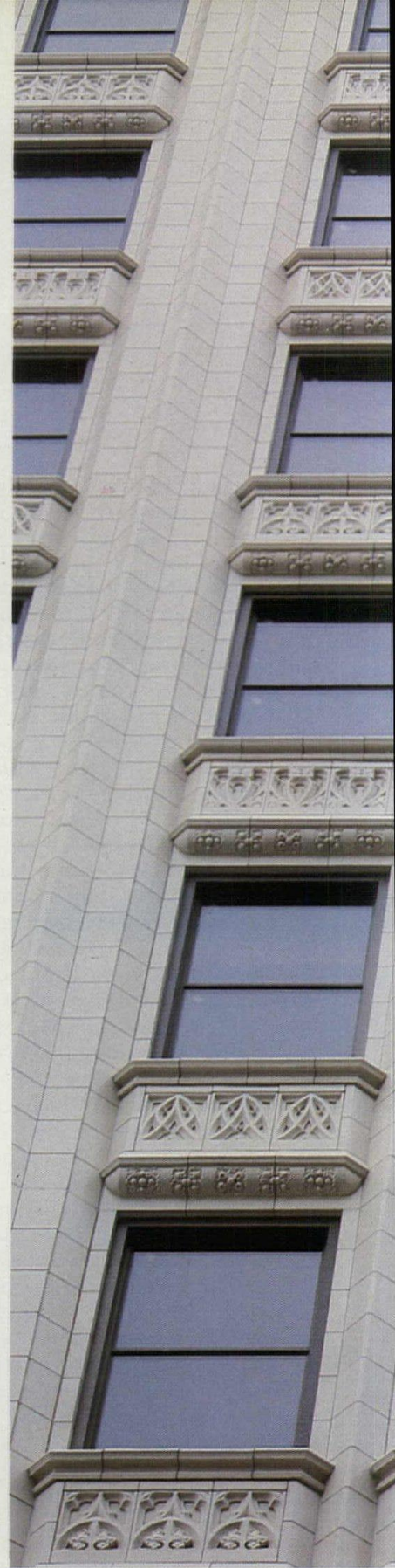
unit to achieve the desired glaze, the precise control of kiln temperatures now ensures a more uniform product. And improvements in the detailing and erection of terra cotta, exemplified in the precast panel system used in the construction of the Reading & Bates Mid-Continent Tower in Tulsa, Okla., have reduced the problems of strap corrosion and unit cracking.

What still attracts most architects to terra cotta, though, is the material's almost unlimited color range. Taft Architects, in their River Crest Country Club in Fort Worth, Texas, use colored terra cotta to dramatic effect, with a green glaze on the entablature and an unglazed finish on the rustications. They investigated other materials, including a rounded glazed brick, but found that "in the end, terra cotta offered the rolled section and color that we wanted." The architects admit that, even using stock profiles, "terra cotta is expensive. But our strategy was to concentrate the budget on items that counted the most, visually."

Malcolm Holzman of Hardy, Holzman, Pfeiffer Associates, a firm that has employed terra cotta in several projects, expresses similar sentiments about the material's economy. "Using terra cotta depends on how you spend your money. Rather than have every material in a building at an equally high level, you can spend more money on the important places, such as an entrance. And at \$30 per square foot, ornamental terra cotta costs about the same as certain stone facings."

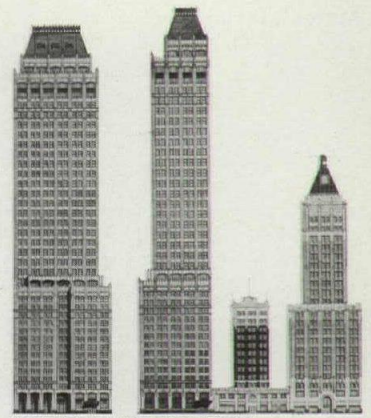
Terra cotta demands craftsmanship on the part of the mason, since slight irregularities in the size and shape of the hand-made units make fine joints and a uniform wall surface difficult. The product demands more of the architect as well. Drawings must be carefully dimensioned, lead times can be long, and changes after the approval of shop drawings can be expensive. Because terra cotta cracks easily, it also must have adequate protection, both on the ground and once on the building; extra units should always be ordered.

Terra cotta may never enjoy the popularity it had in the early 20th Century, when architects used it for floors and partitions as well as a ubiquitous exterior cladding. Yet, despite its few suppliers and relative expense today, it maintains a small but devoted following among architects. As Malcolm Holzman puts it, "There are just not that many (moldable) building materials that come in colors and shine." [Thomas Fisher]



*The River Crest Country Club (left, above) in Fort Worth, by Taft Architects, recalls the neighborhood's domestic scale and the style of the clubhouse formerly on the site. The terra cotta cornice and belt courses unify the elevations and lower their apparent height.*





NORTH AND WEST ELEVATIONS



Photos: J. B. Peterson

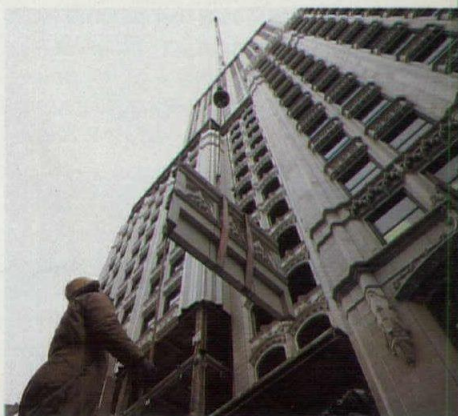
In the Reading & Bates Mid-Continent Tower, a 36-story addition to a 16-story terra cotta office building in Tulsa, Okla., HTB architects have replicated the Tudor detail and terra cotta finish of the original 1918 structure. They avoided installation problems and greatly reduced costs by erecting the terra cotta in precast panels.

The contractor fabricated the panels using reusable plywood forms with the terra cotta placed

face down. After galvanized ties were attached to their webbing, the back of the terra cotta units was spray-coated with reinforced fiberglass concrete, tied to prefabricated metal stud frames, and left to cure in the forms for 24 hours before being removed, cleaned, and pointed. The panels were then lifted into place and attached to the structure like con-

ventional precast. The concrete backing not only eases erection, but also protects the metal ties from possible corrosion and reduces the stress-induced cracking.

The vitrified surface resists staining and discoloration, shown in the whiteness of the original building. The ability to directly model and fire raw clay allows for the deeply undercut relief of the tower's spandrels and finials.





# Marble

**A new process for marble developed in Italy—that stone's traditional headquarters—is revolutionizing an ancient material by making it lightweight, easy to handle, and simple to install.**

There was a time, not at all long ago, when marble was a fragile, thick, and heavy material that was cumbersome and costly to transport and to install. Some people still think of it that way, but they are wrong. Thanks to recent developments at Tecnomarmi Maiera in Turin, Italy, a great variety of marble can now be obtained in sheets (no longer slabs) only ¼-inch thick and ranging in size from 6" x 6" tiles to 4' x 8' wall panels. Where a square foot of standard marble is about 1 inch thick and weighs around 10 pounds, the new material weighs just a fraction more than a third of that. In addition, it can be installed simply by any tile setter, using the standard methods and materials of that trade, on any flat, sound surface. It can be easily cut at the site with a diamond-tipped rotary saw and, if handled according to instructions, is virtually indestructible.

Probably the most dramatic installations of the new material to date can be seen in Denver, Houston, and San Francisco at, respectively, Johnson/Burgee's new United Bank Center, Transco Tower, and 101 California Street. The GL Marble, as it is called in this country where it is available from Marble Technics Ltd. of New York, is not used on the

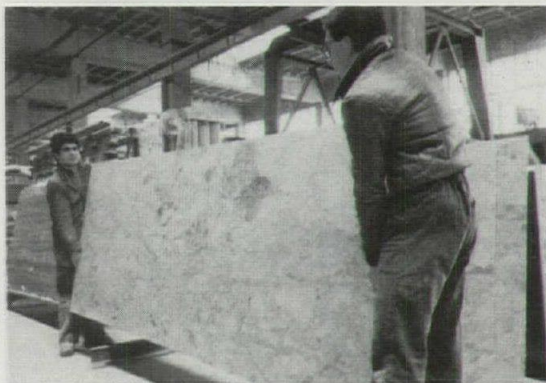
floors and walls of those buildings; but because of its light weight, the material could be used for the first time (as far as we know) as paneling in elevator cabs.

The people at Tecnomarmi didn't really do anything that could not, technically, have been done earlier. But their inventiveness lay in rethinking marble, in attacking its inherent problems by questioning why such an ancient, beautiful, and desirable material could not be made lighter, thinner, and stronger, and packaged and marketed essentially as a do-it-yourself product. To do this, they had to design and build some new machines, reuse old ones in new ways, and systematize the marble process as an assembly-line operation.

Basically, this is what happens. The quarry block is cut in standard fashion on gang saws, but as the blades are withdrawn, a temporary, fast-drying polyurethane "glue" is injected into the cuts. The block is then shifted slightly and cut again, leaving a sandwich of two thin sheets of marble with glue between them. The outer face of each sheet is then coated with epoxy resin and glass fiber rovings (the resin seeping into the marble pores) for strengthening. Then the glue is removed and the inner faces of the now-reinforced sheets are polished before being cut to the various sizes.

In addition to the three types of GL Marble currently available (and shown in the drawings, facing page) another, called Zeta, is also available. It is an inlaid patterned sheet that results from gluing small pieces of marble (sometimes trimmings) together in ways that reveal beautiful geometries when sliced. But in addition to these advantages of the GL process, there is yet another. Because most of the rare and exotic marbles are the most structurally flawed, this process, with its epoxy resin filler, allows them also to be used now in the same applications as those for the more common marbles. None of them, however, is recommended for outdoor use. But that will come. Technomarmi is now developing a process in which the polished, outer surface of the marble will be sealed with a thin sheet of glass similar to that used in automobile windshields. Like many revolutionary processes, GL Marble has come about more through inventive rethinking than through the development of new technologies. [David Morton]

*Through new cutting and reinforcing processes, marble and other stone can now be used in large, thin sheets that are strong and easy to handle. Because of the light weight, it can be used in elevators (such as one designed by Johnson/Burgee and shown near the end of fabrication on facing page). Three types of GL Marble, as it is called, include (far right) "Glass," for most facing applications; "Stone," with marble grit backing for adherence to mortar; and "Iso," with thermal and acoustic insulation and great flexural strength, used for movable partitions, floating floors, elevators, and in prefabricated structures.*

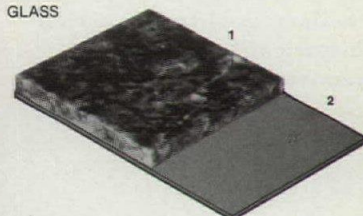




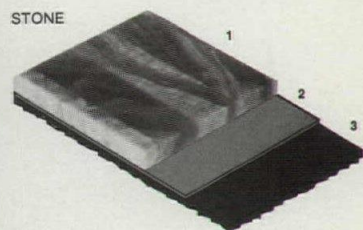


#### TYPES OF GL MARBLE

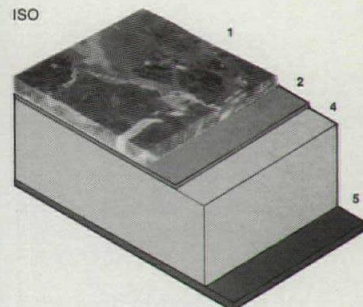
##### GLASS



##### STONE



##### ISO



- 1 Natural stone
- 2 Fiberglass
- 3 Marble grit
- 4 Expanded polyurethane
- 5 Bearing sheet



# Wood

**An architect/craftsman weaves a high level of modern quality into a rich historical fabric in the renovation of two buildings.**

The ancient maxim, "If you want something done right, do it yourself," is one that haunts architects when the subject of craftsmanship rears its head. Obviously, few architects are equipped to execute the detailing of their own projects, but those who are find that the measure of control they have over the finished product can be extremely rewarding. For Branford, Conn., architect Louis Mackall, the subject of craftsmanship—wood craftsmanship in particular—occupies a major portion of his time and efforts. Not only does he run an architectural office, Louis Mackall & Partner (the partner is Duo Dickinson); he also has a woodworking business, called Breakfast Woodworks, with partner Kenneth Field. The beauty of this two-sided endeavor is that Mackall is able to devote a great deal of personal attention to the execution of his own designs.

A case in point is Mackall's renovation of a house and barn in Amagansett, N.Y. The pre-Victorian house and the much older (no one knows how much) barn are only two out of an assortment of buildings that were "collected" by the client on 14 bucolic acres on Long Island's South Shore. It is a curious but comfortable accretion of structures ranging from the old (Amagansett's oldest schoolhouse) to the new (a guest house built several years ago by Mackall), which give the impression of having been there forever. Mackall's response to this wealth of historical layering was appropriately low-keyed in its architectural expression, yet characteristically rich in its treatment of detail.

In the house, the back porch was expropriated for extra kitchen space, and a new back entrance, laundry/mud room, and a spacious sitting room (called the South Room) were added (a rabbit warren of attic rooms was cleared to enlarge the master bedroom, which is not shown here). From the back

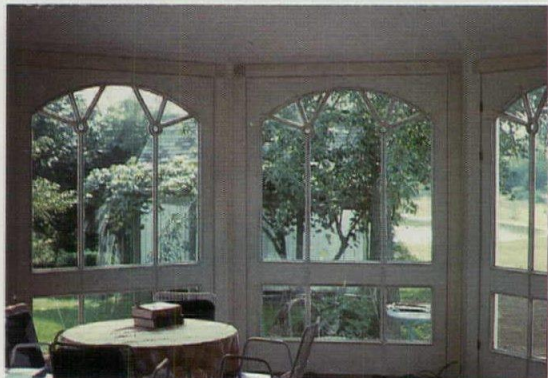
door, the kitchen is entered through a pair of oak and glass sliding doors, set into a deep reveal that holds a series of small shelves. The doors, which slide into pockets in the wall, separate the kitchen from the laundry room, allowing the doorway, in the architect's words, to be "halfway between a door and a wall." The angled mullions resemble the branches of a tree, satisfying Mackall's fondness for upward movement wherever possible, and are capped with rounded moldings to create an illusion of greater depth.

In the new part of the kitchen, white oak is again used for doors and cabinets, with countertops of teak with ash inlay. A tall, narrow cabinet with built-in lighting holds wine glasses; and a Mackall-designed door closes off the back stairs. Sheets of copper, nailed in place with escutcheon pins, shield the cabinets on either side of the stove. In the older part of the kitchen, walls were replastered, and white plastic laminate was applied to some of them for easy maintenance; the same laminate covers the ceiling, to make its six-foot, six-inch height less oppressive.

In the South Room, unadorned plaster walls and a pitched ceiling evoke a sense of cool serenity. Mackall devoted his design energies to cabinetry and detailing, in the bay window with its tree-branch mullions echoing those of the kitchen doors, and in two small, beautifully crafted windows—one at eye level, with a generous, splayed reveal, and the other at floor level, for the family terrier to scrutinize visitors both animal and human. That Mackall lavishes so much care on doors and windows (he tries whenever possible to design them himself rather than buy stock items) is consistent with his belief that doors are metaphors for the human body, as are windows for the spirit.

The barn was moved to the site and reconstructed; Mackall reinforced the framing

*The barn (above) was brought to the site and rebuilt by the architect; new doors, interior rooms, and a loft with an oak and cherry stair (detail, above) were added. A large sitting room, called the South Room (near and far right), was added to the house; the bay window's angled mullions recall the branches of a tree.*







*A pair of sliding oak and glass doors (below) open into the expanded kitchen; rounded moldings on the mullions create a long-distance illusion of depth. Mackall's firm designed and built the oak cabinets and the 2 1/2-inch-thick door leading to the back stairs (near left); they also renovated the original kitchen area (far left, background).*



Photos: Robert Perron

around the doorways, added new doors, and created a study and a loft, which is reached by an oak and cherry stair. Again, the result is one of quiet but effective intervention. In both buildings, the fondness for decoration, level of detail, and quality of execution bespeak a genuine delight in the way that houses and everyday objects are used—which is just as it should be. It is a celebration of the prosaic in the best—and most timeless—sense. [Pilar Viladas]



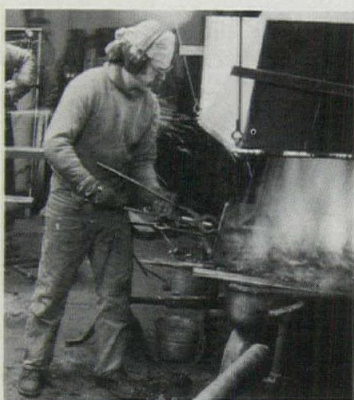
# Metal

**Artist/craftsman Albert Paley creates his own designs at the forge. Architects Heery & Heery design a fence that is built using modern methods.**

The metalwork shown on these two pages represents two distinctly different attitudes towards craftsmanship. The work of Albert Paley, shown on this page, results from the total involvement of the artist/craftsman, whose mind and body interact with the material so that the initial concept can bend in response to the material under fire. The fence for the Coca-Cola Company, illustrated on the opposite page, resulted from a process in which designer and producer were separate: Architects Heery & Heery prepared a code, in the form of drawings and specifications, and then series of identical elements were carefully produced and assembled, with mechanical labor used as often as possible.

## The artist/craftsman

In the 1960s Albert Paley worked as a goldsmith, fashioning jewelry that in its romantic forms, its scale, and its positioning upon the body reacted against the minimalist ornaments common at the time. Through his jewelry he, like other artists of the 1960s, rebelled against prevalent presumptions about social and sexual roles as well as about the relationship of form and function. By the 1970s, Paley wished to take his commentary beyond the intimate scale and into the realm of the broader environment, and he began to create architecturally scaled elements. This also allowed him to bypass the intermediary of the mold used in the creation of his gold jewelry, and to turn to the forging process that involved him directly in shaping the metal. While some of his architectural metalwork seems to be rather uneasy translations of personal ornaments into a larger scale, most strike an inspiring balance between order, intuition, and skill: the gates for the New York State Senate Chamber, for example (P/A, Nov. 1982, p. 119). Perhaps his most sedately "architectural" works are the 800 cast



*Among the architectural elements created by Albert Paley at his forge (above) are mild steel gates such as the one at right, 8'-6" square, created in 1982 for a private residence in Washington, D.C., and the one of which a detail is shown at far right, made in 1976.*



iron tree gates and 50 circular benches designed in 1981 for the Pennsylvania Avenue Development Corporation in Washington.

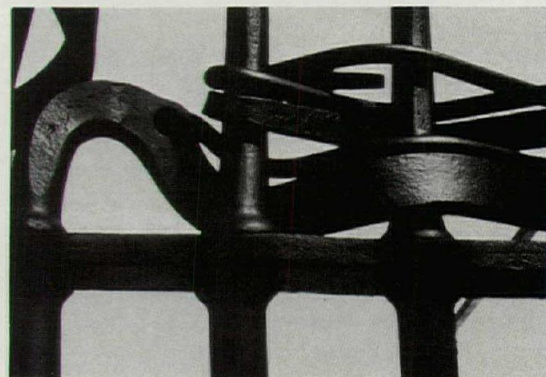
Paley's raw materials include industrial shapes of mild steel, brass, and bronze, and old iron castings scavenged from junkyards.

## The architect/designer

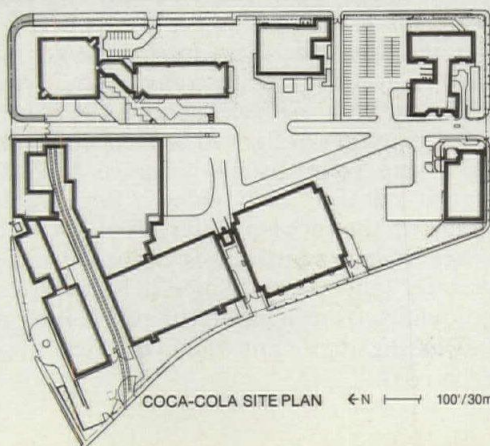
Architects Heery & Heery were asked to design a "traditional wrought iron" fence around the six-acre office complex of the Coca-Cola Company in Atlanta. The 3/4-mile-long fence was to provide security as well as establish a conservative and sophisticated image for this well-known corporation.

The fence, its first phase completed in 1982, does have a certain traditional feeling, with its granite base, decorated piers, and capped pickets. Yet it is unmistakably modern, and uses modern materials and production methods as well as hand welding, filing, and sanding of joints.

The architects specified A36 carbon steel stock shapes rather than iron; the wrought iron process would have been costly and complicated in a project of this size. To ensure uniformity and quality, each piece of raw stock was hand picked (the rejection rate was about 50 percent), placed on a prefabricated jig, and assembled in 20-foot sections in the shop. Curved or irregularly shaped pieces were torch-cut using a pantograph device that followed full-size drawings to produce the pieces in multiples. A water-cooled cutting bed minimized distortion. Each pointed top bar was machined rather than sawn to shape, for uniformity, and then was welded to the top horizontal bar. The 35-foot-radius corner sections were assembled flat with continuous slope, then rolled to shape by a separate fabricator. Because of the difficulty of matching the shop finish on site, field assembly was minimized. [Susan Doubilet]







*The Coca-Cola fence (above) was designed to have a certain traditional feeling while harmonizing with the modern buildings it surrounds. The first phase used 10,000 pieces of A36 carbon steel stock shapes, with irregularly shaped pieces torch-cut using a pantograph device. The pieces, assembled in the shop, were connected with 45,000 hand-welded, filed, and sanded joints.*



# Surface ornament

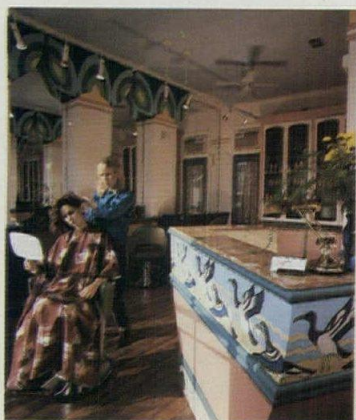
Deborah Dietsch

**A renewed interest in ornament has led architects to reconsider the application of age-old techniques of surface decoration such as stenciling and plasterwork, and to design and use more fanciful tile.**

*Built for a sculptor, the Elliott House (right top) in Ligonier, Pa., has a living room wall plastered with a combination of Portland cement, lime, water, and sand, which was then etched. Architects: Moore Grover Harper.*

*In the lobby of the Metropolitan apartment building (right bottom), a former Philadelphia YMCA renovated by Venturi, Rauch & Scott Brown, a stylized Deco pattern, stenciled in metallic and latex paints, was inspired by the architecture of the existing building.*

*In the Jayne hair salon (below) in Philadelphia, designed by Friday Architects/Planners, painter Dennis Aufieri used a pounce technique to stencil the Egyptian-inspired capitals and the frieze of birds on the reception desk.*



M. Lariche

Ruskin's dictum, "Ornamentation is the principal part of architecture," is being given new credence by increasing numbers of architects. Decorative painting and plasterwork are making a comeback in a wide range of building types, from hair salons to computer centers, while decorative tile designed and used by architects is becoming more fanciful.

Although painting techniques traditionally associated with interior decorators—marbleizing, trompe l'oeil, sponging, and gilding—are gaining acceptance by architects, the most popular surface decoration to be revived is stenciling. Prevalent in New England interiors before 1840, it was originally used to simulate wallpaper. By the Victorian era, stenciling was combined with wallpaper in elaborate floral and geometric patterns, imitative of Egyptian, Gothic, Moorish, and Pompeian motifs.

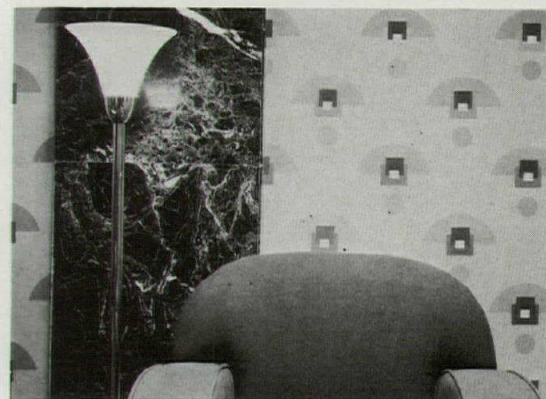
Current stenciling is used less for illusionistic effects than for its flat, decorative qualities. Architect William Grover of Moore Grover Harper, a firm that has long used decoration, views it as "the supergraphics of the 1980s." Others see stenciling as a craft suited for a new Depression: cheap, accessible, requiring a minimum of skill to apply. And "you can always paint over it."

While architects resist agreement on a grammar of ornament, their choices of stencil iconography are often based on appropriateness to function. Friday's decoration for a hair salon is inspired by the Egyptian motifs from a henna box; Venturi, Rauch & Scott Brown use a stylized Art Deco pattern for the lobby of a renovated 1930s building; and garlands for a computer center are derived from a software program developed by Moore Grover Harper.

Part of the attraction of stenciling is its simplicity of technique. Traditional stencils cut from heavy paper or thin metal are still used, along with Mylar and adhesive-backed paper. Kate Williams, a New York City-based painter who specializes in stenciling, recommends acetate for its transparent, scratch-resistant, and easily cleaned surface. She also points out that designs to be stenciled in more than one color usually require a separate stencil cut for each color. "Registration—lining up the successive stencils on top of each other during painting—is easily solved using acetate," she states. "Since it is transparent, guidelines from separate stencils can be seen, facilitating alignment when you come to paint each color."

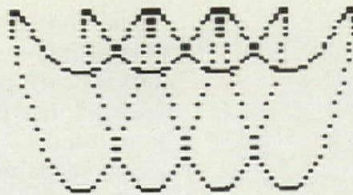


Moore Grover Harper



Tom Bernard





A= 2  
 B= 6  
 T= 2  
 SPACING= 14  
 POINTS PLOTTED AN= 180  
 K= 766  
 SPACING IS NOW 14  
 NEW SPACING = -

*For a computer center (below) at Quinnipiac College, Hamden, Conn., designed by Moore Grover Harper, a garland stencil motif was developed by architect Leonard Wyeth from the OR-NAMAT computer program written by partner William Grover. The computer printout was photo-enlarged onto heavy paper, cut as a stencil, and spray-painted.*



Moore Grover Harper



Still another method of registration is possible using a pounce technique in which a stencil with punched holes is rubbed with charcoal, leaving an outline on the surface to be painted.

For in-painting a stencil, latex, oil, and spray paint are valid choices, but experienced stencilers like Williams advise using fast-drying japan paint applied with a traditional, stiff-bristled stencil brush for detailed work. Whatever paint is chosen, it should be worked up into a thick consistency to avoid seepage under the stencil.

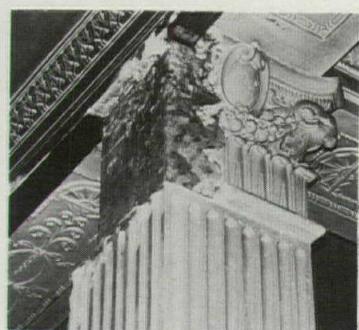
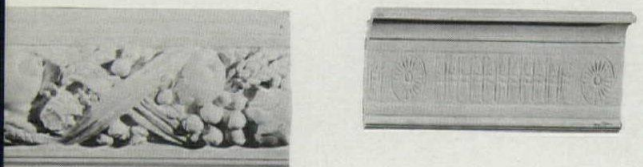
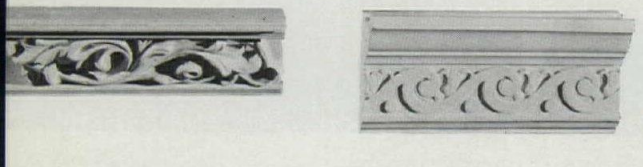
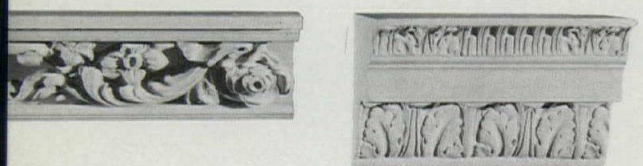
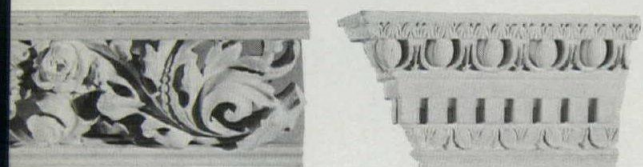
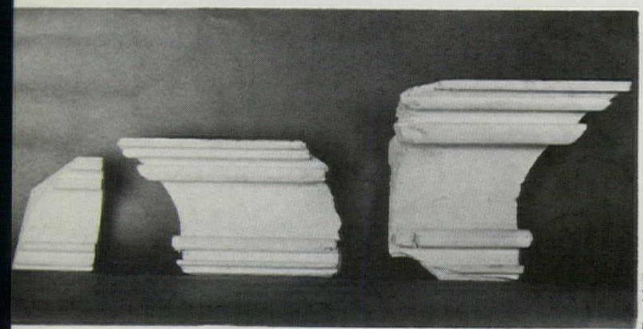
Traditional plasterwork has begun to be revived as part of a growing interest in Classicism. Preservation of older buildings also has led architects to incorporate plaster moldings and capitals in their interiors, and has influenced them to create their own motifs using age-old techniques.

As a craft, plastering has remained virtually unchanged over the past century. Architect Roger Ferri's Mannerist moldings for the Whitney Residence, for example, were constructed using a conventional wet-drawn extrusion technique. Wooden screeds were applied to walls and ceilings at the edges of the proposed cornice, to act as guides for a metal template, cut to the exact reverse of the desired molding. The template then was pulled over wet plaster troweled between the screeds to form the cornice before the second coat of plaster was applied. Several organizations around the country offer technical advice and names of local plastering contractors. These include the Chicago Plastering Institute, the International Institute for Lathing and Plastering, Lomita, Calif., and the Operative Plasterers and Cement Masons of the United States and Canada, Washington, D.C.

A less expensive way of achieving similar ornamentation—though not quite in keeping with Ruskin's ultimate truth-in-materials doctrine—is buying it from companies that specialize in producing accurately scaled reproductions of period plaster decoration from original wood or plaster molds. (Regionally based, they include Felber, Inc., Ardmore, Pa.; Focal Point, Inc., Atlanta, Ga.; Fotia Stone, Inc., Maspeth, N.Y.; Restoration Works Inc., Buffalo, N.Y.; Dovetail Inc., Lowell, Mass.; Decorative Designs, Inc., Elkhart, Ind.; Decorators Supply Corp., Chicago; Ornato Decors, Richwood, N.Y.; Giannetti Studios, Brentwood, Md.; Fischer and Jirouch Co., Cleveland, and others.) Cast from a mixture of polymer resins and plaster with fiberglass reinforcement, the chief advantage of these products is that they are lightweight and can be nailed or screwed in place.

The current revival of traditional surface decoration, whether bought off the shelf or hand-wrought, signals a growing sensitivity on the part of architects towards interior design, one that may well lead to a richer and more humane union of inside and out. □

Deborah Dietsch is special features editor of *Interiors* magazine.



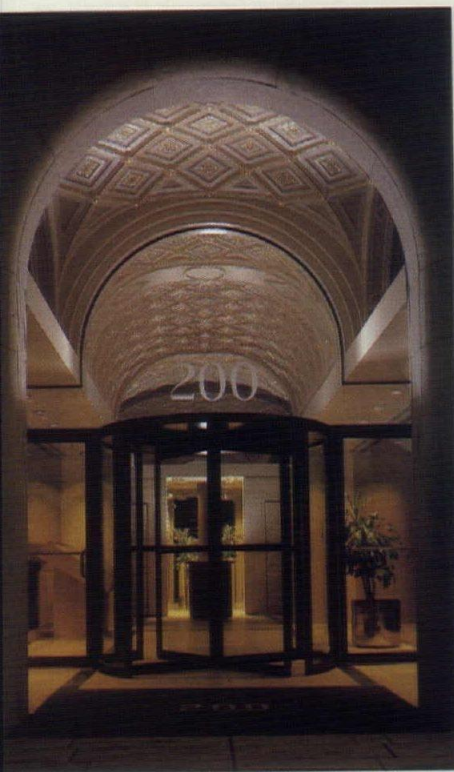
To restore the existing plaster capitals (above) in a 1925 Houston bank building, now Rockefeller's Night Club, Taft Architects employed a 75-year-old craftsman who recast the missing parts using the original molds, discovered in San Antonio.

For the Whitney Residence, Roger Ferri designed cornice moldings that were executed by drawing metal templates through wet plaster (left top).

Fotia Stone moldings (left bottom) are cast in a variety of motifs using a hydrocal/fiberglass/polymer resin mixture.

Photos: Taft Architects





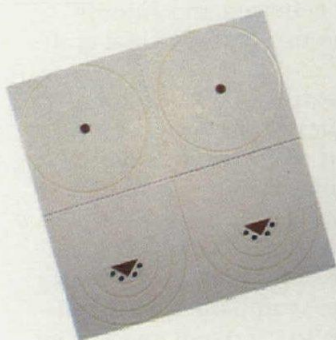
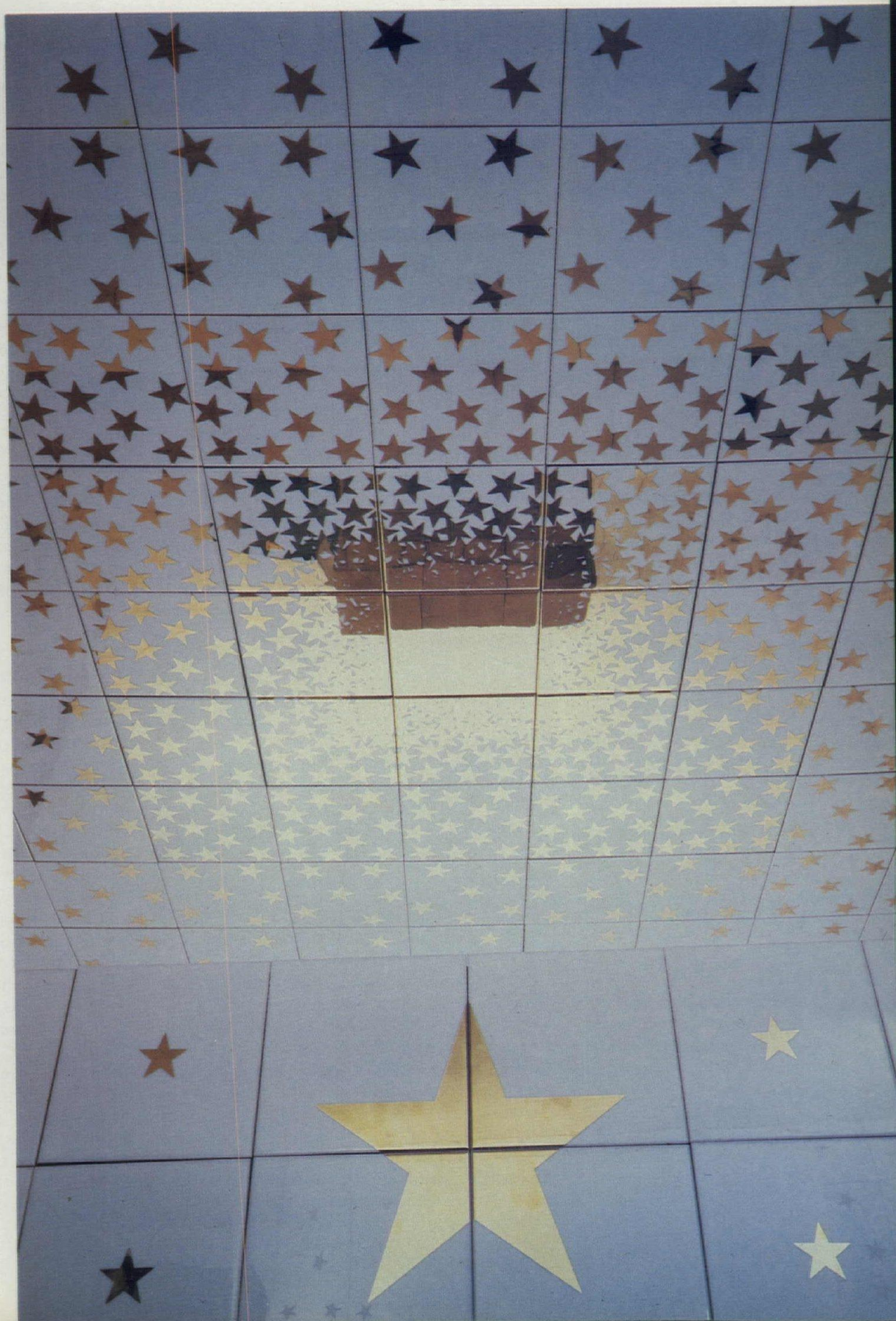
Michel Legrand

The restoration of a 1916 New York office building designed by Cass Gilbert (above) was carried out by Warner Burns Toan Lundie, and included reconstruction by the Rambusch Company of the lobby's original gilt plaster ceiling.

A geometric design adorns ceramic tiles (below) designed by noted Italian fashion designer Gianni Versace for Cerdisa, a manufacturer based in Italy. The tiles are part of a larger collection designed by Versace, called I Nuovi Neoclassici.

Swiss architects Trix and Robert Haussmann, along with Stefan Zwicky and Stephan Hofer, designed the "Perseidi" series of tiles (below) for the Ambiente Collection produced by Toscoceramica of Florence. The system of single or randomly grouped gold stars on a white background can be employed to achieve results ranging from the pristinely Neoclassical to the flamboyantly Pop. The Ambiente Collection is an ambitious (and

welcome) program that involves architects and designers in the creation of ceramic tile designs. In addition to the Haussmanns, Andrea Branzi and Alessandro Mendini have contributed to the collection, which will also include designs by Gio Ponti, Meret Oppenheim, Adolfo Natalini, Remo Buti, Arata Isozaki, and a group of young designers.





# 85 years of craftsmanship

## Deborah Dietsch

**A crafts division, liturgical arts department, lighting division, and painting workshop are all parts of Rambusch Company, the last remaining studio workshop from turn-of-the-century New York.**

*Opposite page: The plaster and mosaic ceiling and walls of the lobby of a New York City apartment building dating from 1885 have recently been regilded and polychromed by Rambusch to simulate the original tesserae.*



*The New York Athletic Club ceiling (above), restored in 1982 by Rambusch director of painting and decorating Buddy Millard, uses graining and glazing techniques. The original turn-of-the-century Rambusch Glass and Decorating Company studio (above right) was located at 21st Street and Fifth Avenue.*

"The reason we have survived is that we have evolved stylistically with the times," says Viggo Bech Rambusch, president of the Rambusch Company. As the last remaining studio workshop from turn-of-the-century New York, Rambusch has managed to maintain a continuing tradition in decorative crafts by diversifying its talents to satisfy the tastes of generations of architects.

Founded in 1898 by Frode Rambusch, a Danish artist and craftsman, the original Rambusch Glass and Decorating Company was located at 21st Street and Fifth Avenue in a district of decorative art studios that boasted the likes of Louis Comfort Tiffany, Herter Brothers, and John LaFarge. From its Beaux-Arts beginnings, the firm was primarily involved with decorative painting and the manufacture and sale of stained glass, ecclesiastical decorations, reliefs, and sculpture. By 1922, Rambusch had opened a metal shop to produce its own lighting fixtures.

Within the studio divisions of crafts and lighting, teams of Rambusch artisans have worked on many prominent public buildings. During the 1920s the firm flourished, receiving commissions for gilded plasterwork, murals, metal railings, and ornate lighting



fixtures for 800 movie palaces. Other notable projects from this period include color schemes for over 20 Horn and Hardart automats and hotels such as the Waldorf-Astoria. In the 1930s, Rambusch continued to establish its reputation for crafted diversity by crowning the Empire State Building lobby with ceilings of gold, silver, and bronze, polychroming the entry sculpture at Rockefeller Center, installing mosaics in Goodhue's Nebraska State Capitol, and embellishing the exhibition pavilions of the 1939 World's Fair. Even during World War II, the

firm used its decorative skills to camouflage forts and fabricate radar antennas.

A constant source of work for Rambusch, especially during the antidecorative 1950s and 1960s, has been for religious clients. Since its first church commission (Latrobe's Baltimore Cathedral, which the firm redecorated three times in 60 years), Rambusch has furnished over 9000 religious structures with metalwork, mosaics, stained glass, lighting, and other appointments. Currently, most of its original interior design is for religious clients, which has led to the establishment of a specialized Liturgical Arts Department.

The design and fabrication of lighting fixtures have helped keep Rambusch's crafts division alive, and now account for over half the company's business. Since the invention and patent in 1936 of the ellipsoidal downlight by Edward Rambusch, cousin of the founder, the firm has continued to develop and produce new fixtures, and now is reissuing some of its original Art Deco wall sconces. In addition, Rambusch has designed lighting schemes for dozens of monumental spaces, such as the Lincoln Memorial, Lever House, the Metropolitan Museum of Art's Great Hall, and the East Wing of the National Gallery.

Within the past decade, Rambusch's craft division has become synonymous with restoration. The stained glass, painting, and art metal shops are now used more for conservation than for original design work. Although some preservationists take a dim view of the firm's emphasis on technique rather than on painstaking scientific analysis, Rambusch's involvement in the restoration of landmark projects (Grand Central Station and the Villard Houses in New York, and the Chicago Public Library) has renewed the interest of architects seeking the use of traditional crafts in their interiors.

Architect Roger Ferri, for example, in his design for the Americana Hotel in Fort Worth, Texas, used Rambusch decorative painters to polychrome the tulip columns in the hotel's restaurant (P/A, Sept. 1981, p. 188). He points out that Rambusch today serves as a general contracting source for crafts, hiring smaller companies and independent craftspeople to carry out specialized decoration (such as the tilework in the Amer-

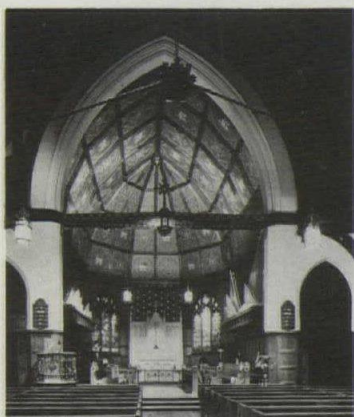








*Rambusch's lighting division designed and fabricated chandeliers for the 1982 refurbishing of the Plymouth Theater, New York (left). A master plan developed for the All Saints Church in Atlanta (left below) included preservation of the stonework, woodwork, painted ceiling, and lighting.*



*Originally decorated by Rambusch in 1927, the Ohio Theatre in Columbus (right) has been undergoing remodeling by the firm since 1970.*



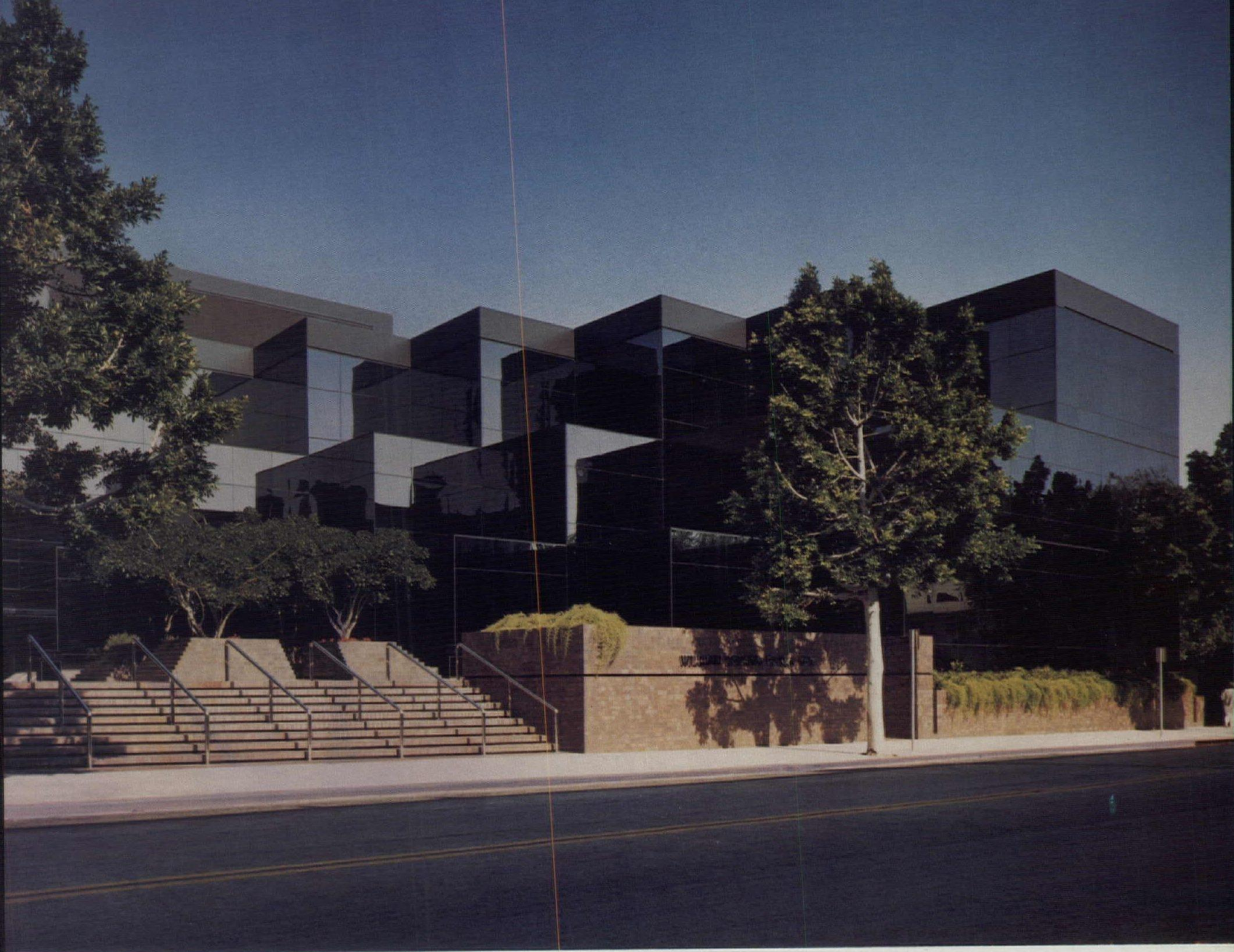
icana restaurant, installed by Venetian Art Mosaic). Lacking a formal crafts training program, Rambusch depends on local unions and associated artisans to staff its workshops. But its ties to the network of small firms still practicing traditional building trades support the crafts community in New York.

Throughout, Rambusch has remained a family business, another factor contributing to its longevity. After the death of Frode Rambusch in 1921, his sons Harold and Viggo ran the firm, and they were succeeded in 1970 by their sons Viggo Bech and Robert

Rambusch. All were trained in the firm's workshops before assuming administrative positions, keeping Rambusch's philosophy firmly rooted in the importance of decorative crafts, regardless of current architectural practice.

To celebrate its 85th anniversary, the firm is organizing an exhibition of its many projects, to be shown at the Parsons School of Design in New York this December. □





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**Work Stations.** Conwed offers a broad array of components for either open or conventional offices. You can choose from freestanding desks or complete work station systems.

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**Acoustical Panels.** Conwed acoustical panels work with Conwed ceilings to reduce noise levels so workers will be less distracted and more productive. These panels are also available with electrified bases to provide wire management and power distribution.



maximize the efficiency and effectiveness of the workplace. Utilizing our technical expertise and experience we have developed a consistent, unified approach which yields predictable performance in the office.

We call this approach **Intérics**: The science of creating environments that work.

Through the principles of Intérics, Conwed can significantly improve the

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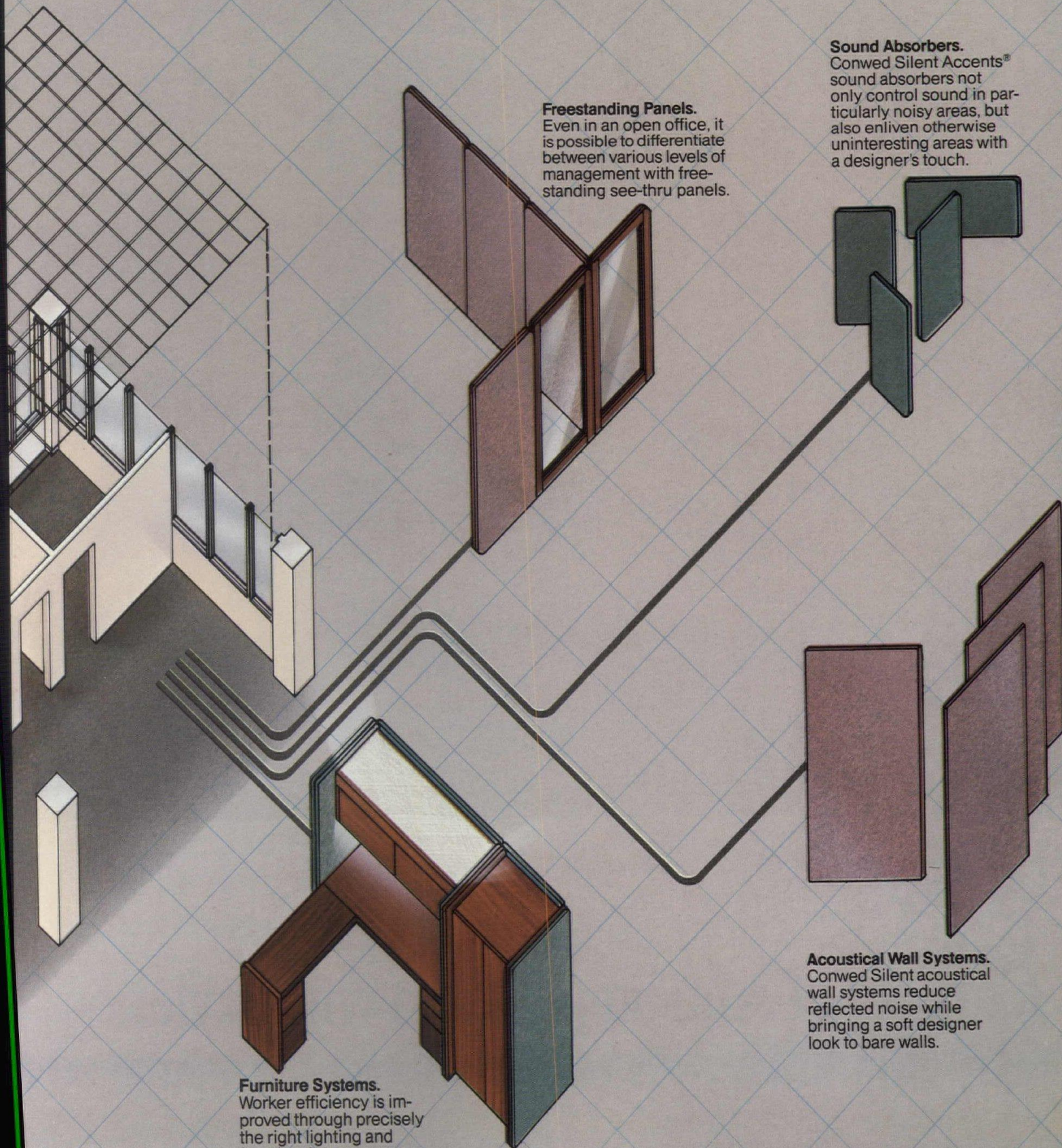
Even in an open office, it is possible to differentiate between various levels of management with freestanding see-thru panels.

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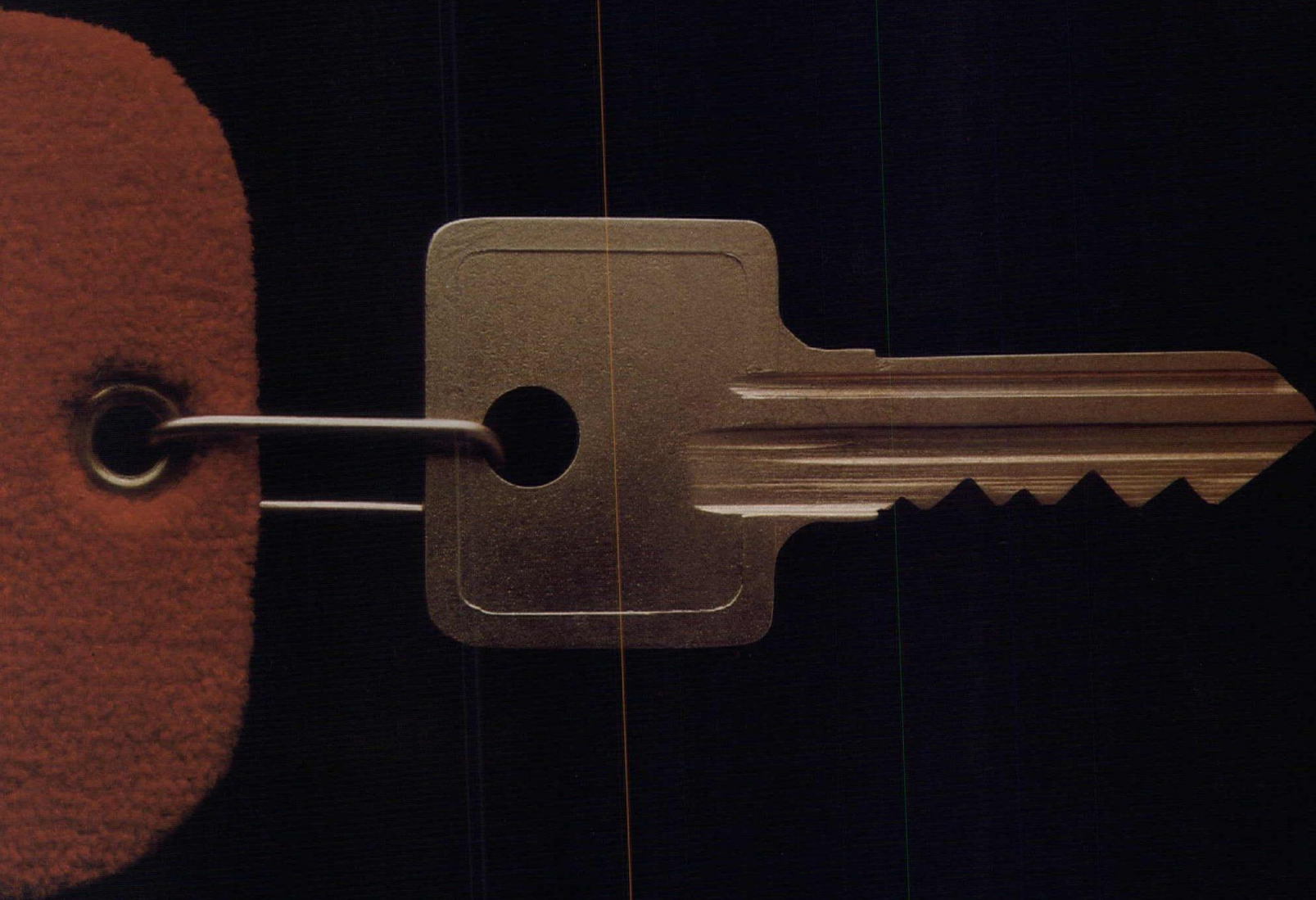




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# Not by specifications alone

Walter Rosenfeld

**Specifications are only a part of the system of checks and procedures by which the architect controls the building process. Understanding how they all work together is basic to specifying.**

In trying to turn out a complete and perfect project manual, the specifier sometimes falls into thinking that if only everything is properly specified, then all will go well on the construction site. Unfortunately, experience shows that even a perfect project manual does not guarantee a perfect job.

The contract documents, describing as they do a complex series of interrelated events—assemblages of hundreds of materials over a period of months or years by large numbers of workers and managers—can't possibly predict and resolve all the potential problems that may arise in the course of their execution.

The intent of the project manual may, in fact, be thwarted by any number of circumstances that are difficult or impossible to foresee: transportation or labor strikes; insolvency of subcontractors or suppliers; unanticipated subsurface conditions; unauthorized deviations from the contract documents; cost-cutting measures instituted during construction; and various other events that interfere with the regular progress of the work.

A good project manual is, therefore, not the complete answer to all the architect's problems; it's necessary but not sufficient. Clearly it's unreasonable to expect words alone to prevent all difficulties on the job during construction. For the most part, building problems that do arise are resolved as a part of the process of construction documentation, project administration, and field inspection, and in this process the project manual does play a central role.

Within the project manual, set forth in the general conditions and in project procedures, is a system of checks and reviews under which many participants examine each part of the work and pass on its accuracy, feasibility, completeness, and appropriateness. The system can accommodate changes, errors, and omissions from many sources and provides opportunities for correction in the normal course of the job.

At each stage of the work there are potential "checkers." During the documentation phase, the responsibility for finding problems is largely that of the architect and his consultants. If a contractor or construction manager is on the team, he can begin to participate as well. For the specifier, the process begins with careful organization of the project manual, examination of drawings, and description of the materials and their installation. The first goal is to see that the drawings and specifications are as complete and accurate as possible.

The bidding period offers opportunities for contractors and subs to report any difficulties they find for correction by addendum, but the architect and consultants should still be examining their own work and correct-

ing it. Cost estimators play a role at this stage, as do governmental agencies and owners who review the documents. Prebid conferences often reveal site or construction plant problems that may affect cost or execution.

Early in the construction phase, substitutions may be proposed as the contractor buys out the work. Evaluating substitutions and other submissions is critical to the success of the project and involves the architect's field inspection staff as well as the original specifier. The aim at this stage is to maintain the original character of the building and the integrity of the documents despite changes.

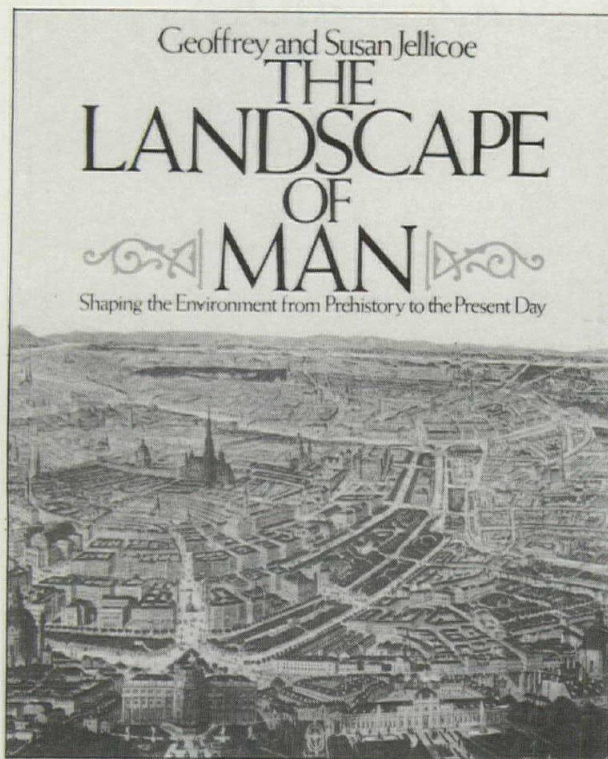
As the work proceeds into construction, the process continues through shop drawing review by the architect and his consultants in which fabricators' details and amplifications of the contract drawings often result in additional corrections and changes. At the same time, inspection of the work in the field and, sometimes, of fabricated products in the shop may be required to see that the original intention is being carried out.

Throughout the progress of the work, many other activities contribute to the continuing examination of what is being done. Job meetings are important problem-solving sessions at which architect, owner, contractors, subs, clerk of the works, suppliers, building inspectors, and others can deal with conflicts that have been discovered. Testing of materials, review of coordination drawings, and making of punch lists also help.

While the project manual is an important part of this system by which construction error is inhibited, the specifier should never forget that we build in an imperfect world where the vagaries of workmen and supervision rule; where contending interests clash; where time, nature, and economics are not always on the owner's side. Recognizing the important role of the system of checks and controls, and the limitations of the project manual itself, is essential to specifying effectively. □

Walter Rosenfeld, AIA, CSI is Managing Director for Professional and Technical Services at The Architects Collaborative, in Cambridge, Mass.





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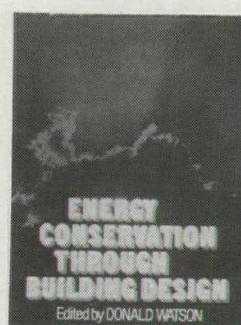
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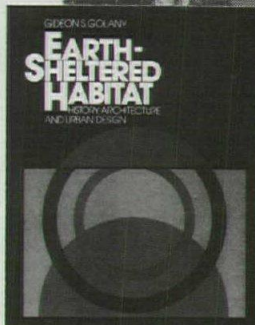
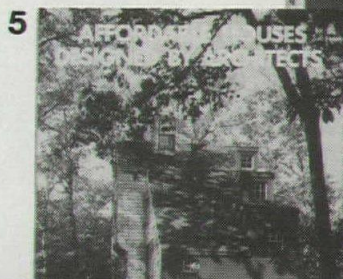
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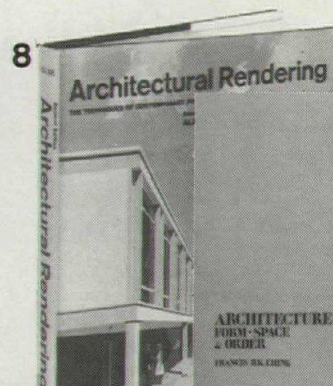
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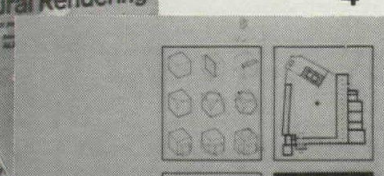
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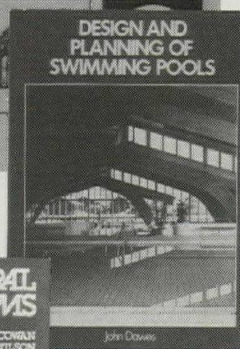
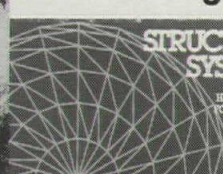
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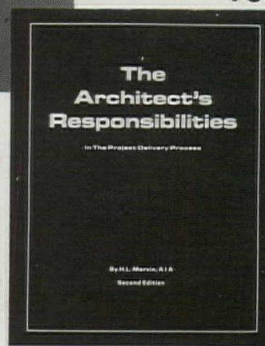


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Forrest Wilson  
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By Albert O. Halse, 326 pp., illus., 2nd edition, 1972 . . . \$44.50

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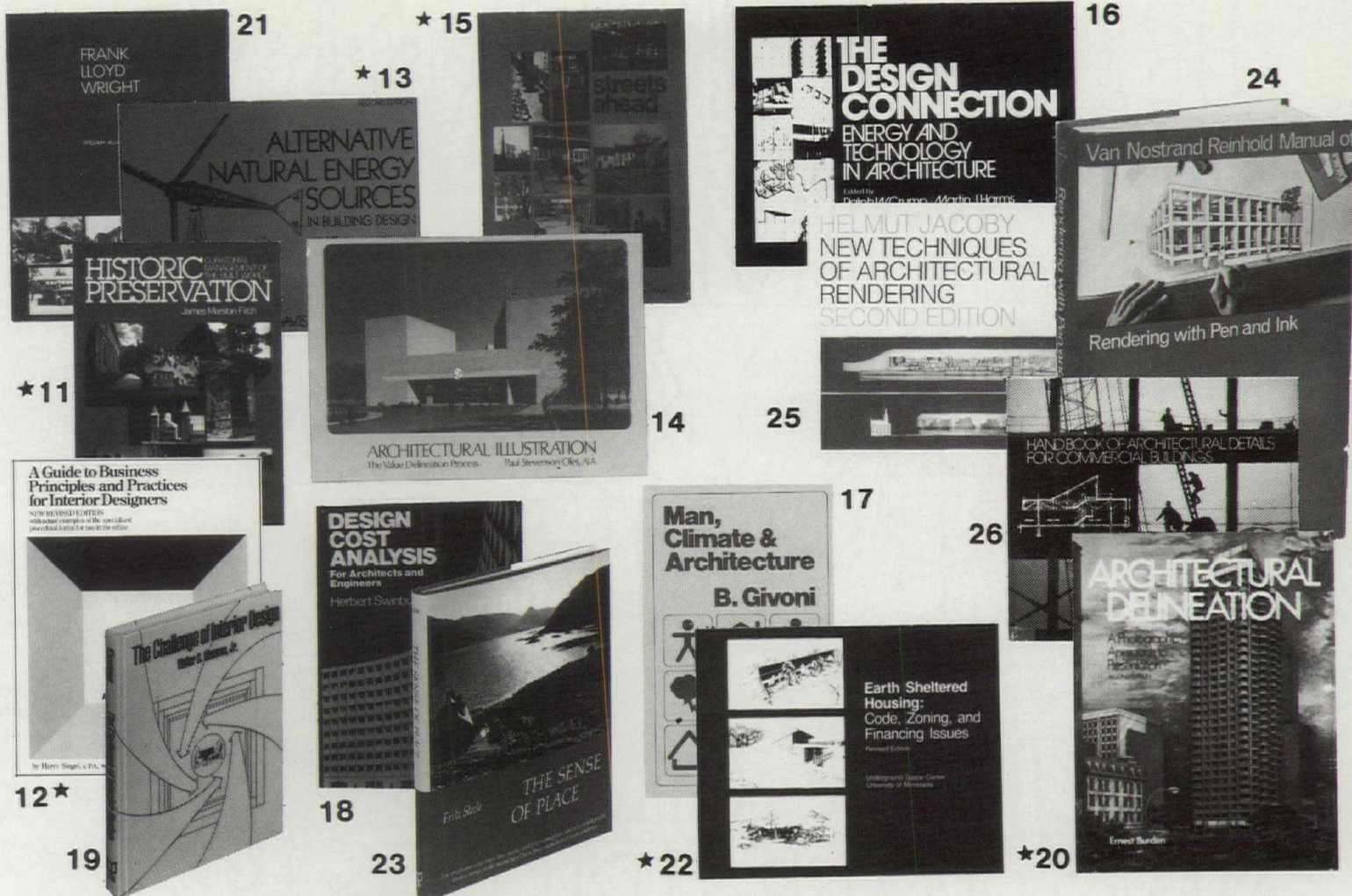
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Edited by Ralph W. Crump and Martin J. Harms  
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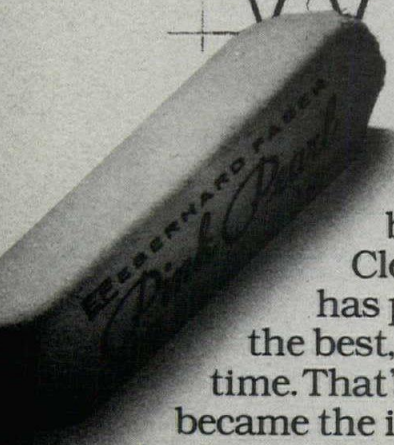
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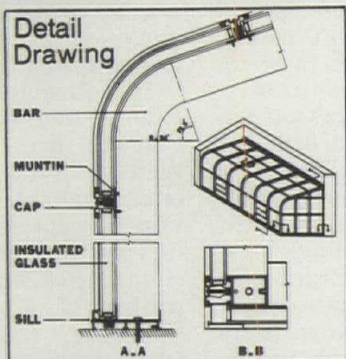
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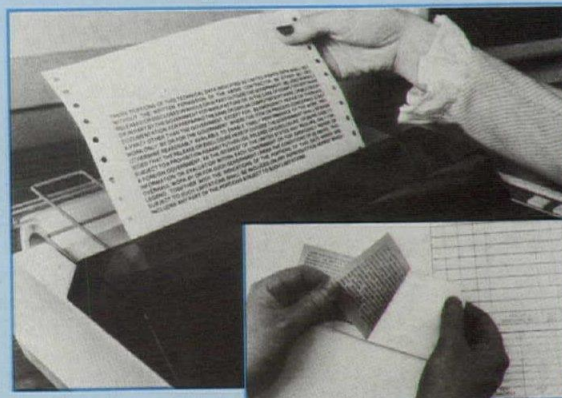
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# Stockholder agreement avoids future lawsuits

Norman Coplan

**To avoid litigation when a partner leaves an architectural firm, a clear and comprehensive stockholder agreement should be drawn up before there is dissension.**

A firm that practices architecture as a partnership or as a professional corporation is often faced with significant problems when a partner or a stockholder withdraws or dies. In the absence of a partnership or stockholders agreement that explicitly describes how the value of the interest of a withdrawn or deceased principal is to be determined, there is likely to be litigation to resolve the issue.

One of the most common areas of dispute is whether the value of the interest is to include the withdrawn partner's proportionate share of accounts receivable and fees earned but not billed, in cases in which a firm has been operating on a cash basis. An illustration is the recent case of *Lewis v. Vladeck, Elias, Vladeck, Zimny & Engelhard, P.C.*, 57 N.Y. 2d 975, which involved the decision of a professional partnership to continue its practice in the form of a professional corporation. In a shareholders agreement entered into in 1975, the partners agreed that in the event of termination of employment, the shares of the withdrawing shareholder would be transferred to the corporation and that the parties would "cause the then accountant for the corporation to value the shares involved and his evaluation shall be binding upon all parties as to the price to be paid therefor." This agreement also stated that a final shareholders agreement would contain explicit directions for the method of the evaluation of the stock. No such final agreement was ever entered into, and thus no specific method of evaluation was provided.

In 1977, one of the principal stockholders withdrew from the firm, and the accountant concluded that since the firm operated on a cash basis, the value of the interest of that stockholder did not include accounts receivable. This decision was challenged in court, and it was held that the value of the withdrawn stockholder's interest in the corporation should include accounts receivable.

Upon appeal, the continuing stockholders contended that under their agreement with the withdrawing stockholder, the parties were bound by the determination of the accountant and that the court could not vary the same. In rejecting this contention, the Appellate Court pointed out that although in one sentence the agreement provided for the accountant to value the stock, in another it provided that the method of valuation would be established in a subsequent agreement, which had never been formulated. These two sentences, said the Court, must be read together:

*"As written they constitute no more than an agreement that the corporation's accountant would value the shares in accordance with the explicit directions to be agreed on by the parties in a subsequent agreement; in substance this is no more than an agreement to agree. The parties did not agree . . . that the shares should be valued by the accountant in accordance with accepted accounting principles or as he otherwise professionally saw fit in the event*

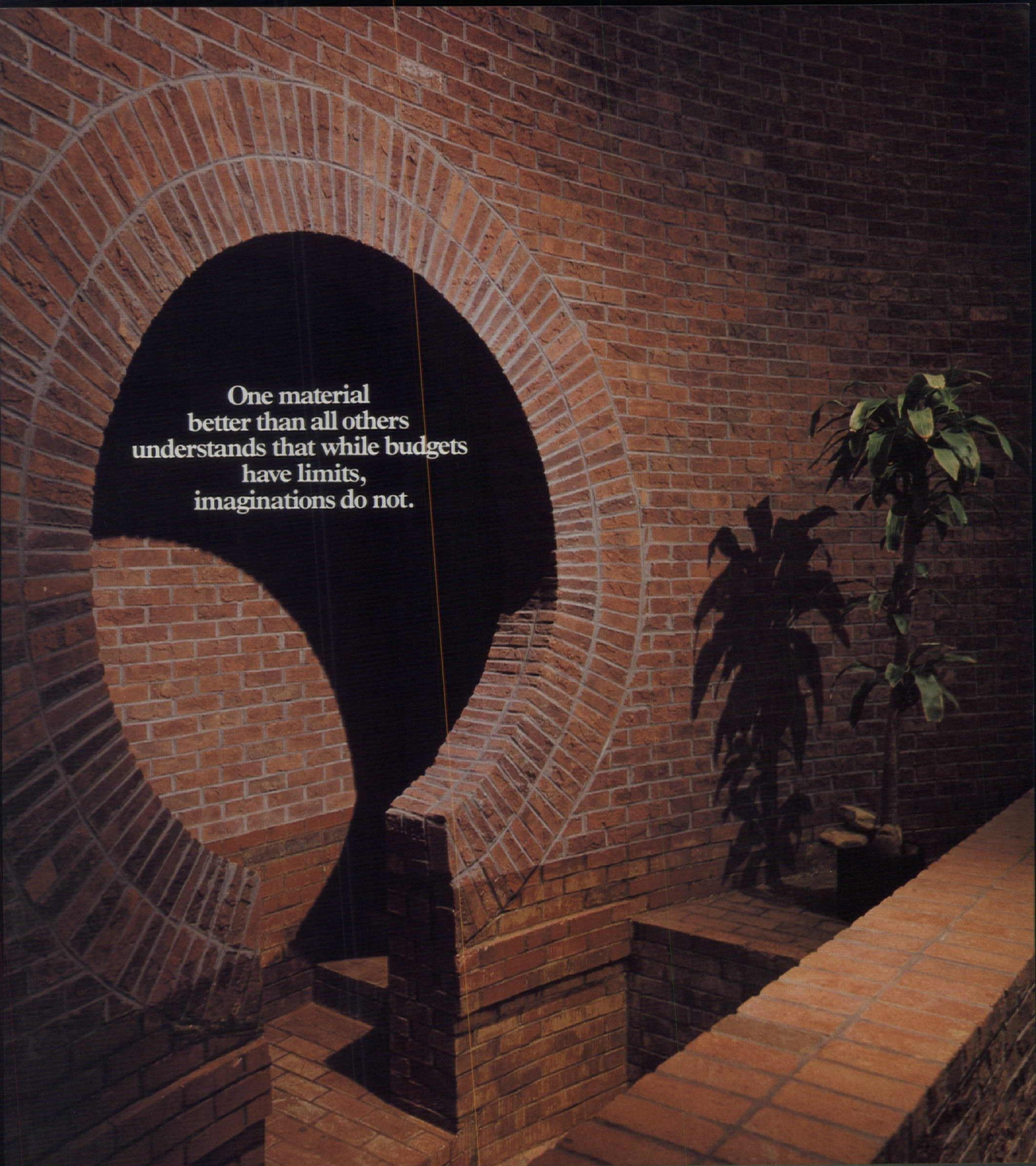
*of the inability, or as proved to be the case, the failure of the parties to reach agreement with respect to the explicit directions for the method of valuation. . . . In the absence of an enforceable agreement to the contrary it was not error, therefore, for the court to direct that the plaintiff's shares be valued on the basis of his interest in the net assets of the corporation including its accounts receivable, irrespective of what accounting method had been employed by the corporation in the maintenance of its own operating accounts."*

In a dissenting opinion, a minority of the Court pointed out that the parties were aware that they had not provided explicitly for the method of evaluation and that under such circumstances, the accountant's determination of value should be binding unless his method was not consistent with normal accounting practices or was otherwise improper. "The only issue open to the plaintiff therefore," stated the minority, "should be whether the method used by the accountant reasonably complied with the usual evaluation methods. . . . Plaintiff should be permitted to present evidence, if he can, establishing the impropriety of the evaluation method used by the accountant in valuing plaintiff's shares, but until he has had that opportunity neither he nor defendants are entitled to summary judgment."

The difference in approach by the majority and minority opinions in this case highlights the importance of explicit and comprehensive partnership or stockholder agreements that clearly reflect the intention of the parties in the event of the withdrawal, termination, or death of a member of the firm. Many other problems can also arise in such a situation. Over what period of time, for example, is that interest to be paid so that the burden is not too great upon the partnership or corporation? May the firm continue to use the name of the deceased partner or stockholder? Is the withdrawn principal free to compete with the continuing firm, and how is a project to be handled when the client under contract with the firm wishes the withdrawing principal to handle his work? What accessibility, if any, will the withdrawn party have to the plans and records of the firm? What liability insurance protection, if any, will be afforded the withdrawn member of the firm, or his estate if he has become deceased, in respect to claims which are subsequently asserted in connection with work performed while he was active with the firm? The answer to these and similar questions should be reflected in an agreement that is formulated when harmony reigns, and not by a court in resolution of a litigation. □

Norman Coplan, Hon. AIA, is a member of the law firm Bernstein, Weiss, Coplan, Weinstein & Lake, New York.





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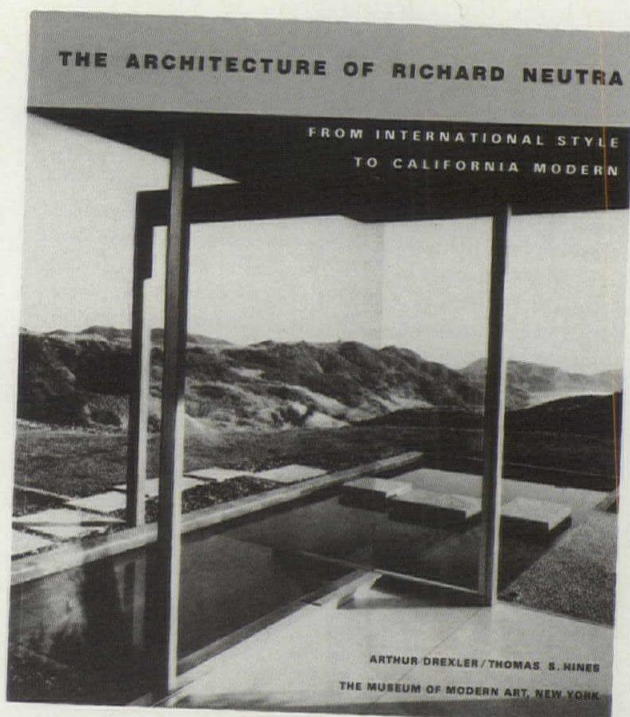
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# On Neutra

Books



**The Architecture of Richard Neutra: From International Style to California Modern** by Arthur Drexler and Thomas S. Hines. New York, The Museum of Modern Art, 1982. 114 pp., illus., paperback, \$10.

**Richard Neutra and the Search for Modern Architecture** by Thomas S. Hines. New York, Oxford University Press, 1982, 416 pp., illus., cloth, \$49.95; paperback, \$29.95.

Reviewed by Richard Guy Wilson, Chairman, Division of Architectural History, University of Virginia, Charlottesville.

In his youth Richard Neutra desired mightily to be a famous and great architect. By most standards he succeeded in this ambition, yet personally he remained a somewhat tormented and insecure individual who could sense, by the end of his life, that he had not quite made the first rank of the Masters. Neutra first emerged as a major architectural force in 1929 with the completion of the Lovell "Health" House in Los Angeles, and throughout the 1930s, 1940s, and 1950s, he was generally ranked on a par with Wright, Mies, and Le Corbusier. Even if in the 1960s there seemed to be new architectural movements that passed Neutra by, he still could command the cover of the *Saturday Review* and get his work published in the approved *oeuvre complete* format as three volumes. He died in 1970, and seven years later the AIA posthumously gave him the Gold Medal. This certainly reflected continued admiration, and also how Neutra's brand of Modernism had become the conservative defense of American architects. Now, 12 years after his death, he is being exhumed, first in a major exhibition of his work, which was held at the Museum of Modern Art during the summer of 1982 accompanied by Drexler and Hines's catalog, and by Hines's major study of Neutra's life and architecture. Neutra is back in center stage where he always wanted to be, posturing and disclaiming, and as enigmatic as ever.

Neutra had perhaps one of the richest architectural backgrounds of any 20th-Century figure. Born in 1892 in Vienna, [Books continued on page 126]

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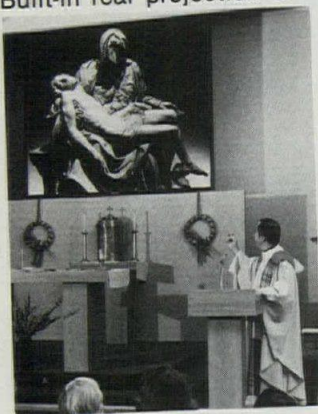


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Books continued from page 125

he knew or was exposed to the Viennese Secessionists and Adolf Loos, worked for Erich Mendelsohn in Berlin during the early 1920s and saw the new architecture taking shape, traveled to the United States and met Louis Sullivan on his death bed, worked for Frank Lloyd Wright for six months in 1924, and finally in 1925 settled in Los Angeles to work with his old Viennese friend Rudolph Schindler. Entranced by the United States from his earliest years, Neutra quickly wrote a book on American building techniques, *Wie Baut Amerika* (1927), aggressively pursued clients, and by 1929 emerged onto center stage with one of the finest International Style buildings anywhere, the Lovell House. In the 1930s he traveled extensively and did a series of iconic Modern houses, such as the metal-sheathed Joseph Von Sternberg house in the San Fernando Valley, the floating Kahn house in San Francisco, and the "Windshield house" for John Nicholas Brown on Fishers Island, N.Y. In the 1940s, Neutra began to adopt a more relaxed and less posturing architectural approach; natural wood and fieldstone replaced metal, white stucco, and concrete. The climate of Southern California allowed the erection of lightweight pavilions with glass walls, and Neutra continued in the 1950s and 1960s to further refine and minimize these elegant designs. He built far beyond the borders of Southern California and in a sense made the "California style" into a world-wide architectural idiom. He was always best at the domestic scale, and in spite of the effort, his larger designs seemed to lack life.

The social basis of Modern architecture always attracted him, or as he wrote, "I had always hoped that this new architecture would produce a different human being." For him, Modernism meant a scientific approach, and he pursued what he called "bio-realism" in a series of articles, books with titles such as *Survival Through Design* (1954), and even an institute named after himself. For Neutra, the subject matter of Modern architecture and housing in particular was the facts of modern technology and building. The critical opinion of today—including the books under review—favors Neutra's work of the 1920s and 1930s. Certainly this is because of the perspective of time, and also because the earlier buildings are more dogmatic, more pure, and less "regional" in flavor.

Fittingly, the exhibition and catalog are vintage Museum of Modern Art, for MoMA included Neutra in the 1932 *Modern Architecture*, or more commonly known as the *International Style*, exhibition, which significantly boosted his career. The recent exhibit concentrated exclusively on his housing and largely was composed of black-and-white enlarged photographs mainly by Julius Shulman, a very few architectural drawings by Neutra, a couple of recent models, and some memorabilia. In typical MoMA manner, the houses were treated as abstract, exquisite art objects, largely divorced from life and habitation. Plans when shown were miniscule. The show and the catalog's major essay by Drexler focused on Neutra's elaboration of a few motifs, the parapet and roof line, vertical supports, contrast with nature, and other elements. One other important inclusion was an entire room of ca. 1915 sketches and drawings done in a Secessionist-Expressionist style, and portraying a variety of subjects from houses to horses, snakes, and other fanciful elements. Some of the techniques in these drawings would surface later in Neutra's presentation drawings—unfortunately ignored by the exhibition—but the fanciful, romantic elements, never. And therein lies one of the critical issues with Neutra, essentially a romantic—a person who operated on emotion and intuition—he saw the spirit of the 20th Century as rational, and forced himself into that mode of cool austerity. The result was a personal conflict and tension that was never resolved, even though much later in his career he felt the pressure to again pursue romanticism. But it was too late; he was dried up.

Thomas Hines's book on Neutra is an excellent study, written from a judicious perspective. Mr. Hines, a professor of history and architecture at UCLA, knows well the Post-Modern critique of Neutra, yet he has been able to maintain a largely sympathetic and yet critical view. Subtitled *A Biography and History*, the focus is on Neutra's life as a story, and while

[Books continued on page 128]





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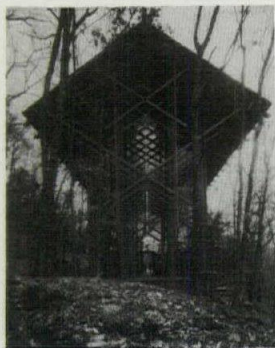


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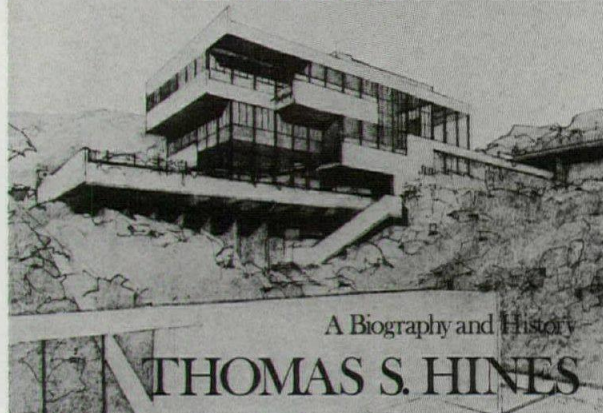
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Books continued from page 126

## RICHARD NEUTRA AND THE SEARCH FOR MODERN ARCHITECTURE



A Biography and History

THOMAS S. HINES

references are made to the larger history of Modern architecture, it is history through Neutra's experience. One of the consequences of Mr. Hines's book is that the architecture is frequently separated from Neutra's life. Also, Neutra produced much, especially in the post-1945 years, and Mr. Hines has had to condense a lot. These minor qualms aside, the book is a fine study, readable, and handsomely produced.

A question that frequently surfaces concerning Neutra is how he obtained the commission for the Los Angeles Lovell house when the Lovells were supposedly clients of Schindler's. Schindler had already done several buildings for the Lovells, including the epoch-making—though largely ignored at the time—beach house in Newport of 1926. There are a lot of testimony and interpretations from all sides of how these partners and friends became enemies. Esther McCoy's *Vienna to Los Angeles: Two Journeys* (Los Angeles, 1979) supported the Schindler position that Neutra acted unethically, and stole the commission. New evidence and interpretations put forth by Hines deny this and indicate Schindler was fed up with the Lovells and told Neutra to take the commission. Later the architects had a falling out when Neutra became famous with a world-wide reputation while Schindler remained behind as a local personality. In one sense, Hines puts the argument to rest. Neutra appears vindicated, although even Hines has a nagging doubt, for he writes: "If he [Neutra] did not 'steal' the commission, perhaps he should have."

This question of Neutra's personal character arises throughout the book—for there is always the problem of his hunger for fame and publicity, his insecurity, and his egotism. Neutra never was a teacher in the sense of Gropius, Mies, or Breuer, but he did run an important training office and produced architects such as Gregory Ain, Harwell Hamilton Harris, and Raphael Soriano. Harris has remained basically fond and admiring of Neutra while indicating certain shortcomings. Soriano remained devoted to him. Ain, on the other hand, found him a rationalizer who had "sold his soul to the devil." Later, in the 1950s, Neutra entered into partnership with Robert Alexander, which apparently floundered over Neutra's egotism and poor faith, and brings to mind the old Schindler dispute. And ultimately he was unhappy in his own family, even staging heart attacks to get his own way. What comes across is the driven man, searching for renown, and yet with the nagging question of whether he was really great.

Of course one can say, personality aside, Neutra produced some of the great buildings of his time. Yet his character and craving for recognition suggest an attitude often attributed to the heroes of the Modern movement, the syndrome of the great—uncompromising—architect with all the answers. Obviously, more studies are needed that go beyond formal architectural analysis and into the other factors that contribute to the design: personality, motives, and circumstance. Thomas Hines's fine study provides us with one model. □





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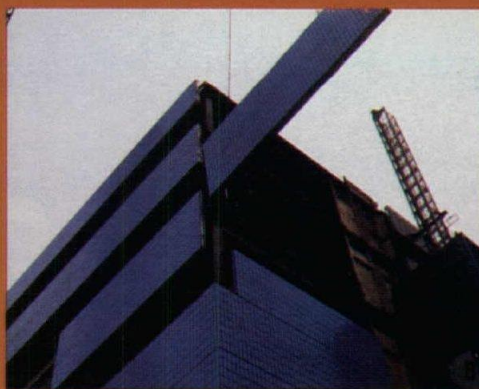
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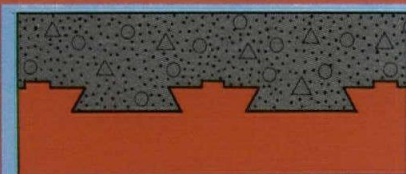




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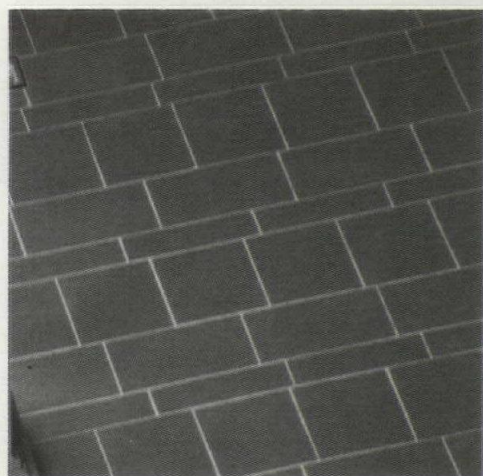
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# Products and literature

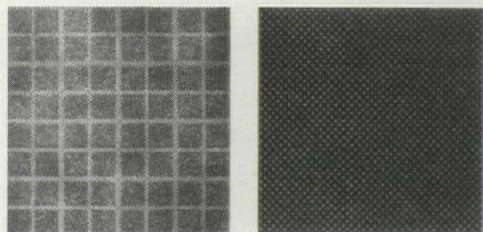
The following items are related to the general theme of this issue—craftsmanship. They are grouped here for the reader's convenience.

## Products



**Traditional Tuscan "cotto" tile** is produced in a variety of geometrical shapes in the timeless terra cotta color and texture. Manufacturer recommends it for outdoor and indoor paving. Il Ferrone. *Circle 100 on reader service card*

**Vitrified single-fired floor tiles** in the Futura line have subtly embossed tone-on-tone patterns in whites, earth colors, and vivid red. The 20 cm x 30 cm units (about 8" x 10") can be laid in a variety of patterns. Ceramica Gresmalt. *Circle 101 on reader service card*



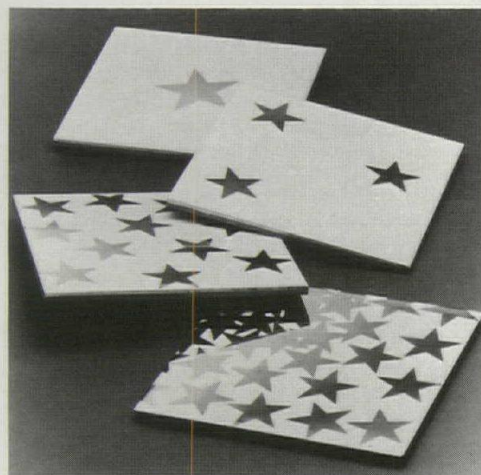
**Single-fired tiles in patterns** resembling weaves, plaids, and dotted prints are among the variations on the traditional "monocottura" tile offered in the Kerastone® line. Colors include vivid blues and roses, as well as earth colors and white; available in standard 12¼-inch

squares and other geometries. Low absorption makes it useful for floors, walls, and counters, indoors and out. Piemme of the Americas.

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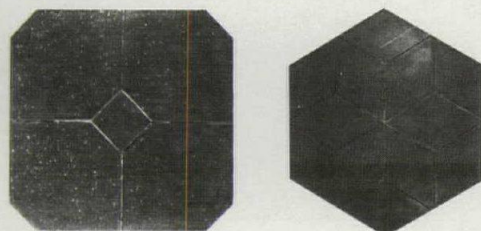
**Small geometric patterns** on 20 cm x 20 cm (8" x 8") tile are offered in the "Open" series, which includes minute checkerboards and other designs miniaturized from traditional tile-laying grids. Colors include off-whites, bright blue and green, ochre, and black in sharp or subtle contrasts. Moccia Ceramica.

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**Gold stars in a white ground** are clustered with increasing density on a series of nine wall and bathroom floor tiles in the "Perseidi" collection. Solid white and metallic gold squares (8" x 8") complete the series designed by Trix and Robert Haussmann. Toscoceramica, available on special order from Hastings Tile.

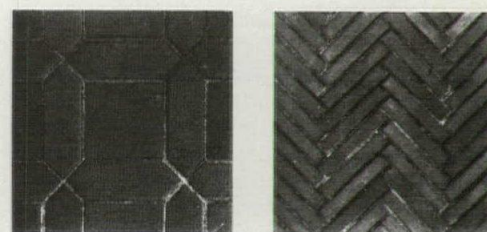
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**Handcrafted "cotto" earth-colored tiles** are appropriate for historic restoration, as well as new construction. Products from one of the old tileworks in Impruneta, near Florence, are available in squares of several sizes, octagons, hexagons, triangles, rhomboids, etc. to

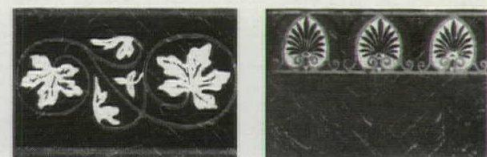
form traditional laying patterns. Cotto REF.

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**Traditional unglazed floor and paving tile** in a variety of polygonal and traditional shapes and sizes is available in handmade and various extruded types. Special shapes such as copings and pool edges are obtainable to match. Cottoimpruneta.

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**False marble tiles** are among the witty "Neoclassical" designs in a line of rectangular wall tiles (20 x 30 cm) designed by Gianni Versace. Vine, palmetto, and stripe patterns appear superimposed on marble-veined backgrounds of white, cream, black, and Pompeiian red, which also appear plain. Other "Neoclassical" tiles include wall and floor squares in a variety of understated linear, geometric, and medallion patterns. Cerdisa Ceramiche.

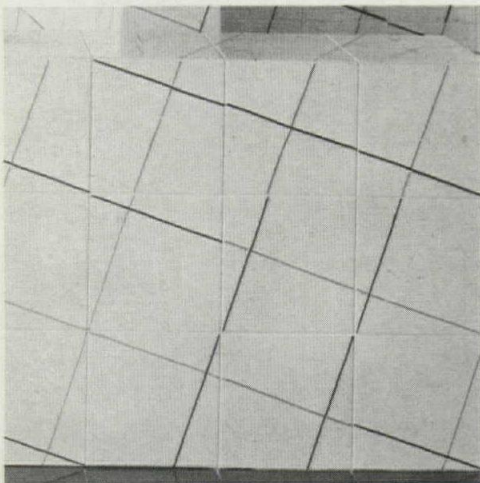
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**Pin-stripe patterns** in vivid colors on white, or vice versa, are offered in the "Fili" line of rectangular tiles (13 x 26 cm) for bathrooms and kitchens. Bright red, yellow, green, and blue, with plain blacks, whites, make possible numerous custom combinations. Ceramica Bardelli.

*Circle 108 on reader service card*  
[Products continued on page 132]





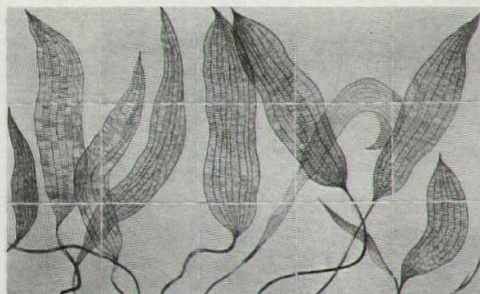
**Hand-decorated majolica tiles** are available in a very wide variety of bright colored motifs on white grounds. The artisan's use of brush, stencil, and graffiti technique is apparent in the irregularities of simplified floral, geometric, and brushstroke designs. Combinations of different patterns and tiles for larger scaled compositions is encouraged. Gabbianelli.

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**Large-size floor tile**, up to approximately 2 feet square (60 x 60 cm) are available in the single-fired Atomar line. Colors include muted tans, ochres, whites, and reds—clear or subtly mot-

ted. Among smaller sizes offered, a series of 31.5-cm squares is available in exceptional colors for single-fired, frost-resistant units—among them vivid red, turquoise, orange, and green, dark blue, black, and several grays and browns. Marazzi USA, Inc.

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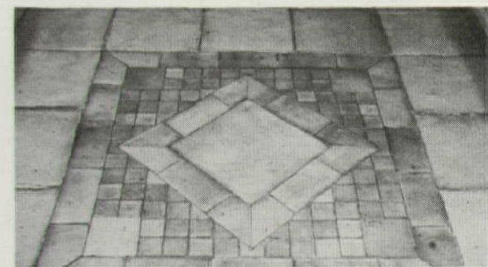
**Gae Aulenti designs** for multipanel wall compositions feature aquatic plants and fishes; all can be coordinated with plain pastel tiles for adjoining walls and floors. "Algae" (pictured) blends into plain ivory tiles above, pale blue below. Iris Ceramica.

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**"Ceramic Granite"** is the manufacturer's term for a line of extra-hard floor tile, said to be 30 percent stronger than natural granite. Acid, alkali, and frost resistant, the tiles are recommended for high-traffic shopping, industrial, and medical facilities, among others. Available in squares and rectangles ranging from 8" x 8" to about 11" x

16", they are available in shades of tan, gray, rose, and green, with a fine-scaled grainy pattern on smooth surfaces. Castellarano-Fiandre Ceramiche, Creative Surfaces Corp.

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**Handmade floor tiles** in pastel colors are among the variations on ancient ceramic products in this line. Also of interest are tiles with white glaze of irregular density, ochre color ones showing color firing variations, and white glazed wall tiles with relief patterns suggesting Islamic or Edwardian models. Cotto Artigiano.

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**Press-molded tile** of either stoneware or porcelain clay is fired at a high temperature for strength and durability. The tiles have some irregularities in glazes and clay inherent in hand-crafted work. There are several designs, shapes, sizes, and colors, and two types of trim. Among designs available are many used by Julia Morgan at the Hearst Castle, [Products continued on page 134]

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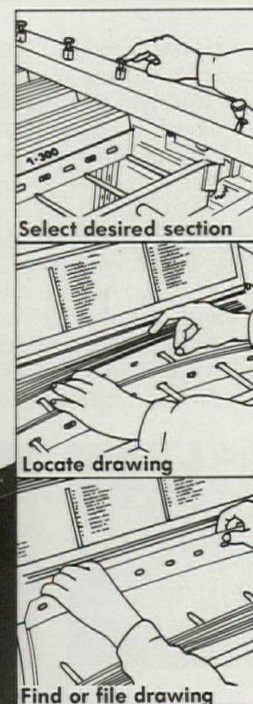
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The SUSPENDIX System also saves floor space. Because there are no drawers to open and take up aisle space, 5000 drawings fit in an area that takes 50% less space than 10 five-drawer flat files.

For free brochure contact your nearest K&E branch or dealer, or Keuffel & Esser Company, Engineering Documentation Division, 20 Whippany Road, Morristown, NJ 07960.



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Springfield Square, Charlotte, N.C. Architect: David Furman.  
Developer: Martin McGuire, Inc. Siding: Colonial Shingle Texture.

# THE LOOK. NOW TWICE AS FAST.



New ShakerTown Colonial II double 7" course cedar shingle siding will give you the look you want. Twice as fast. Twice as easy.

Colonial II siding with two 7" courses per panel cuts application time by half over regular 7" lap siding and by three-fourths over individual shingles.

Colonial II siding is #1 grade cedar shingles permanently bonded to 8' plywood panels. There are no seconds, no grade fall down and very little waste. Matching mitered corners complete the system.

Get the full story on Colonial II. Call Joe Hendrickson at 1-800-426-8970.

## ShakerTown Siding

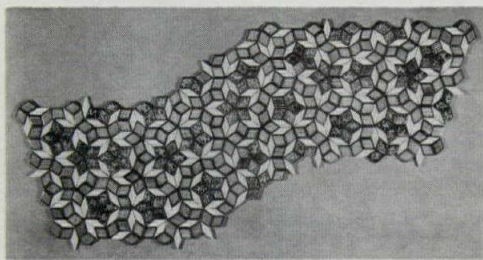
Box 400, Winlock, Washington 98596 (206) 785-3501

Circle No. 381 on Reader Service Card



Products continued from page 132

San Simeon, Calif. Deer Creek Pottery.  
Circle 114 on reader service card



**Ceramic tile**, with glossy or matte glaze, is fired at 2350 F to provide a durable surface. Glossy finished tiles are suitable

for walls, countertops, pools and tubs; matte finishes, suitable for high-traffic and wet floors, can also be used for walls and countertops. There are 12 matte colors, 16 glossy colors, and blue spongware. The tiles come in several geometric shapes that can be combined to create patterns. Taos Clay Products.  
Circle 115 on reader service card

**Private Commission clay tiles**, available in more than 100 shapes and 2000 colors, can have matte, semigloss, or transparent glazes. The tile has a dense body with very little absorption, making it suitable for areas with extremes of temperature and moisture. The company also provides custom tile service. Stonelight Tile.  
Circle 116 on reader service card

**Hand-made porcelain tiles** are produced in a variety of sizes, glazes, and colors and include decorative tiles that are available with matching designs in several sizes. There are geometric patterns that can be used separately or in combinations to create desired effects. The company also custom designs murals, mosaics, fountains, and sculpture. Touchstone Tile Company.  
Circle 117 on reader service card

**Metal shingles and tiles** of galvanized steel, from an original 1908 line, are offered for new or restoration work. Metal tiles are Spanish or Mission style; shingles are Victorian or Normandie. Trimmings include finials, continuous hip finish, and ridge caps. Shingles and tiles can also be supplied in solid copper. W.F. Norman Corporation.  
Circle 118 on reader service card

# We've Proved Our Point.

At last, a technical pen as good as the people who use them. One that's a proven winner. The marsmatic 700 has won three international gold medals for excellence in design and performance. The new marsmatic point has our most advanced ink-flow system ever. The marsmatic 700 never needs shaking. It draws instantly. It won't leak or dry up. And it's available with stainless steel, tungsten carbide, or jewel points. Now prove to yourself just how good it really is. The marsmatic 700 - as good as the people who use it. It's about time.



Available at drafting, art, and stationery stores throughout the United States and Canada. Send for free full-color brochure.



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Dallas, Texas

A 3204

Circle No. 383 on Reader Service Card



**Column capitals** cast from a hydrocal/resin/fiberglass composition are among several architectural elements available from this company. Casts made from an original piece can be used to produce duplicates for restoration work. Fotia Stone, Inc.

Circle 119 on reader service card



**Molded architectural shapes** of glass-reinforced gypsum include medallions, shells, niches, cornices, and mouldings. The company says it has more than 7000 antique molds and models from virtually any architectural period; they also have the capability of researching and designing in the style of any period. The composition, which is over 90 percent pure gypsum, has a zero flame spread and no appreciable fuel contribution. Felber Inc.

Circle 120 on reader service card  
[Products continued on page 136]



# ENCORE

## AT LOS ANGELES MUSIC CENTER

The performance was a classic lasting 17 years! Then, they called for an encore. The star: 100% pure wool carpet, custom designed in honey and olive with the Center's sunburst emblem.

Wool was chosen as the only fiber that could provide the luxurious beauty and rich color needed to complement the elegance of the Grand Hall and the Dorothy Chandler Pavilion.

Over a million patrons annually attend 400 performances and other events. Only wool offered the soil and stain resistance, cleanability, easy maintenance and durability required to cope with the crowds, drink spills and cigarette ends. Daily vacuuming and periodic cleaning removed spots and soil. Burns brushed away leaving no ugly melt scars.

After 17 years, when the carpet was replaced, the Los Angeles Music Center insisted on an encore and specified a 100% pure wool duplicate of the original carpet!

Want more encores from your clients? Specify pure wool. Its easy cleanability, economical maintenance and lasting beauty make it the most cost-effective carpet investment.

**Again 100% pure wool sets the standard for carpet excellence.**



PURE WOOL PILE

The Standard of Carpet Excellence.

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of International Wool Secretariat  
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212/986-6222

The Woolmark is a registered certification mark owned by The Wool Bureau, Inc.

Circle No. 394 on Reader Service Card





**Architectural detail source** has a library of catalogs of custom wood mouldings, metal mouldings, architectural plaster ornament (cornices, ceiling centers, domes, niches, and corbels), mantels, period embossed metal ceilings, and columns. The owner is Kerry Joyce, whose background includes interior design and motion picture and television art direction. A catalog listing is available from Designer Resource, 5160 Melrose Ave., Hollywood, Calif. 90038.

**Paneling of kiln-dried solid hardwood**, with tongue-and-groove edges, is available in several species: ash, cherry, birch, walnut, hickory, white oak, red oak, maple, beech, and poplar. The paneling is 3/4-inch thick and comes in random widths and lengths. The company will also pressure treat it against rotting, termites, and worms. Leslie Brothers Lumber Co.

Circle 121 on reader service card

**Custom wood work** includes raised-panel walls, mouldings, wainscoting, and feather-edge and beaded-board walls. Also available are interior and exterior doors and entryways, windows, and shutters. Capabilities include 17th- and 18th-Century restoration and reproduction. Maurer & Shepherd Joyners, Inc.

Circle 122 on reader service card

**Custom mouldings** in any size or shape are offered in a choice of woods: pine, poplar, oak, walnut, cherry, mahogany, and maple. The company also provides custom millwork for the restoration of old buildings and reproduction of early style architecture. They have available Victorian wainscoting, wide pine boards for floors and walls, and wide oak flooring. Craftsman Lumber Co.

Circle 123 on reader service card

## Literature

**Indiana Limestone** brochure provides typical wall details and spandrel details for buildings using limestone wall panels. It describes five kinds of stone and the six most frequently used finishes. Photos show buildings on which the product has been installed and there is an explanation of the type of panel used on each. A suggested specification for Indiana Limestone is provided. Harding & Cogswell Corp.

Circle 200 on reader service card

**The Old House Journal Catalog** lists 1242 companies and nearly 10,000 products for restoration work, including many hand-crafted items. The catalog provides addresses, phone numbers, and product descriptions, and indicates whether product literature is available. For a copy of this 196-page guide, send \$11.95 (\$9.95 plus \$2 for delivery) to The Old House Journal Catalog, Dept. PA, 69A Seventh Ave., Brooklyn, N.Y. 11217.

**Architectural mouldings** catalog offers products for restoration of old houses or construction of new Victorian or Colonial style buildings. Millwork is made from kiln-dried oak, redwood, and pine. Custom mouldings and millwork can also be provided. Wainscot, mouldings, baseboards, brackets, and similar millwork are included in the 36-page [Literature continued on page 138]

# ROOFS DON'T BEGIN TO COVER ALL WE DO.

With dramatic structures like the Silverdome in Pontiac, the Metrodome in Minneapolis, or the Sun Dome in Tampa, it's easy to see why architects and design engineers think only of stadium roofs when they think of structural fabric.

At ODC Inc., we're uncovering other applications for structural fabric, our SILICONE structural fabric that is.

Our patented coating technology represents an advancement in coated fabrics heretofore used. And we don't just coat: ODC is equipped to design, engineer, fabricate and erect. Our 31,500 sq. ft. plant is the only silicone coating plant of its kind in the world.

Entire buildings—from top to bottom—are possible, as well as geodesic domes, sky lights and curtain walls.

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tural fabric also represents an excellent construction material for agricultural, aerospace, industrial, military and other equipment or components.

If you're looking for a diverse but durable structural fabric with translucency (zero to 90 percent), weathering life (20 years), dirt resistance (self-cleaning) and breathability (high moisture vapor transmission), look to ODC.

Silicone coating technology, design, engineering, fabrication ... all under one roof.

For the fact book on ODC and detailed product information, write Dept. 051, or contact Don Solar, director of marketing, at (404) 923-3818.

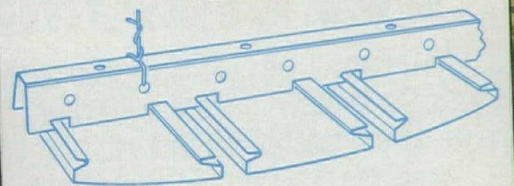
**ODC INC.**

A JOINT VENTURE OF OAK INDUSTRIES INC. AND DOW CORNING CORP.  
4291 COMMUNICATIONS DRIVE/NORCROSS, GEORGIA 30093





**Detail of Levolor Ceiling System  
U-70-J**



## **Articulate your design with Levolor Ceilings.**

Levolor Ceilings do more than attract the eye with their sleek beauty. They delineate important elements in the interior design, carving them in dramatic relief the way this mirror-finish ceiling highlights a three-tier atrium.

It's one of thirteen Levolor Ceiling Systems in more than 130 colors and mirror metallic finishes. These systems are not mere components. They are fully integrated and

are compatible with our own or conventional air distribution and lighting systems.

For more information and a sample of the panel shown, write on your letterhead to Architectural Resource Group, Levolor Lorentzen, Inc., 1280 Wall Street West, Lyndhurst, NJ 07071.

**LEVOLOR®**  
Architectural Resource Group

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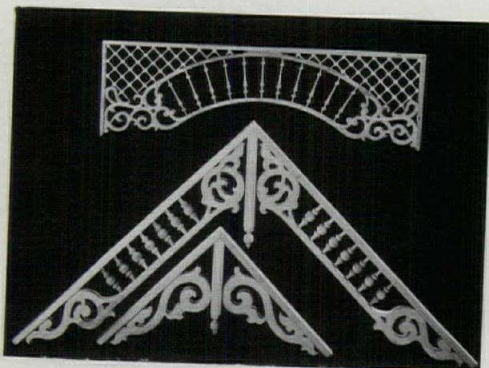
Circle No. 359 on Reader Service Card

Lobby of Regency West, West Des Moines, Iowa. Architect: Savage & VerPloeg Inc.



Literature continued from page 136

catalog. For a copy, send \$3.50 to Silver-ton Victorian Mill Works, Box 523, Sil-ver-ton, Colo. 81433.



**Victorian Millwork** catalog offers ga-bles, brackets, corbels, spandrels, balus-trades, and rails for exterior use. For in-teriors there are grilles, fretwork, wainscoting, panels, and mouldings. All are made from kiln-dried oak or poplar, with other woods available on special order. For a copy of the 24-page catalog, send \$3.50 to Cumberland Woodcraft Company, Inc., 2500 Walnut Bottom Road, Carlisle, Pa. 17013.

**Period mouldings** catalogs in two vol-umes show ornamented wood mould-ings in a wide choice of designs. They also illustrate how to create casings and cornices by combining several mould-ings. Color photos show typical installa-

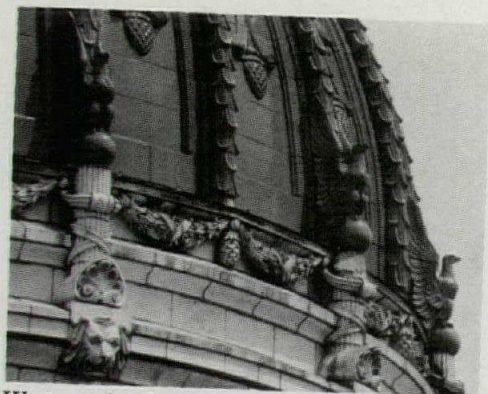
tions in various period styles. For the two volumes send \$6 to Driwood Mould-ing Company, P.O. Box 1729, Florence, S.C. 29503.

**Marble Design Manual II** has approxi-mately 155 pages of technical informa-tion and specifications. The manual is divided into three sections: General in-formation, Product use, and Definitions. Specifications follow the CSI Spec-Data format. The manual is \$25 plus \$4 for handling and can be ordered from The Marble Institute of America, 33505 State St., Farmington, Mich. 48024.



**Wood Mouldings & Ornaments** catalog describes and illustrates decorative wood mouldings and carved and em-bossed ornaments made from hard-woods such as European beech and ramin, as well as obeche and pine. Mouldings come in random lengths of 3

to 15 feet; the company can also supply custom mouldings in quantity orders. The catalog costs \$1 and can be ordered from Bendix Mouldings, Inc., 235 Pegasus Ave., Northvale, N.J. 07647.



*Westmoreland County Court House detail, Greensburg, Pa.; Architect: Roach, Walfish Pellis Lettrich Architects/Planners.*

**Terra Cotta**, a four-page brochure, illus-trates the use of terra cotta in resto-ration/renovation and new construction. The company has more than 75 stock dies and will also manufacture custom dies for special applications. It also has the ability to match existing façades for restoration work. Gladding, McBean & Co.

*Circle 201 on reader service card*

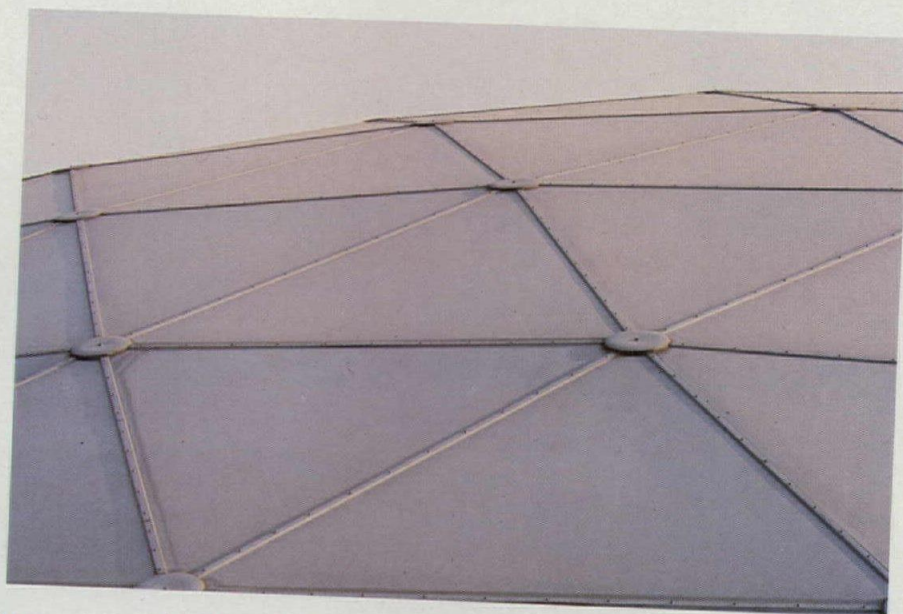
**Cast stone** brochure describes the man-ufacturing process, the mix, and the var-iations possible in cast stone. Color  
[Literature continued on page 140]

# WE WANT TO BUILD THE NEXT SUPERDOME.

We're Temcor. We build clear-span buildings. All sizes. Our largest is more than 400 feet in diameter. And we haven't reached our limit yet.

We've also designed and erected more clear-span structures than any other firm in the world. And we've been doing it longer.

Nearly 30 years of experience goes into each building. When we put up a clear-span structure, it's not an untested theory susceptible to design flaws. Our buildings have been proven around the world. From the blazing Mojave Desert to the freezing Arctic. From college campuses to storage yards. We've proven our durability.



So if you think clear-span construction may be the solution to your design problem, think Temcor. We'll gladly put our experience and engineers to work for you. Together we can build the next domed super structure.

For brochures describing the entire Temcor building line, write: Temcor, 2825 Toledo Street, P.O. Box 3039,

Torrance, California 90510. Or call toll-free (800) 421-2263. In Califor-nia, (213) 320-0554.

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The clear-span construction advantage.

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# Who said there's nothing new under the sun?

Florex units have enhanced the ambiance and seating capacity of restaurants and lounges for major operations around the country, such as: Holiday Inn, Smuggler's Inn, Pizza Hut, H.T. McDoogal, Howard Johnson and Bombay Bicycle Club.

*Thermally-broken throughout (including doors and windows), wider insulated double glass areas, minimum live load 40PSF, wind load 25PSF, totally self-supporting... and that's only the beginning. This structurally superior modular construction accommodates commercial and residential applications of span and geometric configuration limited only by your creativity. The ITB affords quick installation and lowest on-site costs.*

*Glazing can be specified as clear tempered insulated glass, tinted glass, reflective or laminated glass to suit your particular*



*application and local building code requirement.*

*Send us your specification and our design staff will respond with both quotation and suggestions, if requested, within several days of receipt.*

*We'll even provide on-site construction supervision, if needed—but supervision should not be necessary except for the most complex of geometries.*

## FLOREX ITB

*Now...isn't that something new?*



**ENGLISH  
GREENHOUSE  
PRODUCTS CORPORATION**

**(609) 966-6161**

Eleventh & Linden Streets / Camden, New Jersey 08102  
A Mallinson-Denny Company in The Brooke Bond Group



photos illustrate several buildings with information about architects, construction dates, and important features. Included with the brochure are specification sheets. W.N. Russell and Company. *Circle 202 on reader service card*

**'Slate Roofs,'** published originally in 1926 by the National Slate Association, is a handbook about slate and its proper application. It represents the contributions of architects, slate producers, roofing contractors, government departments, manufacturers, and others. The 84-page manual has been reproduced as a service to slate producers and users and is available for \$7.50 from the

Vermont Structural Slate Co., Inc., Fair Haven, Vt. 05743.

**Ohio Craftsman hand-molded vitreous tiles** are available in nine colors, two thicknesses, and standard and special sizes. Included in the series are individually hand-painted decorative wall tiles. The tiles are described and illustrated in a 28-page brochure that includes handmold metrics, as well as several other tiles and trims for interior and exterior commercial and residential use. Structural Stoneware, Inc. *Circle 203 on reader service card*

**Hand-made French ceramic tiles,** primarily for residential use, are illustrated in color in a ten-page brochure. Imported from the Atelier des Hurets,

France, they include floral and fruit designs, patterns, scenics, murals, and borders, with complementary plain tiles. For a copy of the catalog, send 75¢ to Elon, Inc., Box 571 APR1, Ardsley, N.Y. 10502.



*World Trade Center.*

**Ceramic tile** catalog includes a section on ceramic mosaics that are available in 39 colors and 8 accents. Sizes are 1" x 1", 2" x 2", 1" x 2", or 2" hexagons. The tiles offer outstanding wear, according to the manufacturer, and can be assembled to form a variety of border patterns. As a service, the company will provide floor border patterns, serpentine, Greek key, or all-over rug designs, which can be executed in traditional black and white or in colors. The 40-page catalog is available for \$2 from American Olean Tile Company, Lansdale, Pa. 19446-0271.

**Grilles and railings,** clock cases and posts, weather vanes, and benches of cast iron, cast stone, or steel are a few of the thousands of products this company makes, all involving some handcrafting. Books available illustrating company capabilities (\$5 hardcover; \$2.50 soft cover) include Unusual Lighting Fixtures; Benches; Gesso Art; Tablets, Crests, and Plaques (soft cover only); Weather Vanes; and Cupolas and Sundials. Kenneth Lynch & Sons, Inc., P.O. Box 488, Wilton, Conn. 06897.

**Decorative steel ceiling and wall panels** and cornices are offered in several designs that are illustrated in an eight-page brochure. Panels are 2' x 8' and cornices, of various widths, are 48 inches long. The brochure also includes installation instructions with step-by-step photos. Shanker Steel Corp. *Circle 204 on reader service card*

**Prestplate metal ceilings** in 18 patterns and three filler patterns are shown in a six-page brochure. Also shown are nine cornice patterns, ranging from 1½ to 11 inches deep, and a girder nosing, each 48 inches long. Ceiling panels are 2' x 8'. Illustrated installation instructions are included. AA-Abbingdon Ceiling Co., Inc. *Circle 205 on reader service card*

[Literature continued on page 142]

**Embossed  
Dimensions in  
HIGH  
FASHION  
FLOORING...**

LONSWIRL

LONBRICK

LONCOIN

LONPLATE

Four unique, deeply embossed designs in *sheet vinyl* by Lonseal offer patterns and colors that range from bold "High Tech," to a warm brick look. Tough and easy to care for, embossed Lonseal comes in rolls... can be welded for a sanitary, seamless installation. Call for details or see us in SWEETS. **S**

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Circle No. 361 on Reader Service Card



# The General Electric Zoneline® heat pump that isn't afraid of heights.

Most everyone knows that you get outstanding comfort and economy from a heat pump. And that heat pumps are available in packaged terminal units for room-by-room comfort control. Which would seem to make them ideal for high rises—except for one little thing. Winter condensation. Which can be a big problem when it's leaking down twenty stories. And a big expense if you have to install a drain system to stop it.

That's why General Electric designed a zonal heat pump specifically for multi-story construction.



WE BRING  
GOOD THINGS  
TO LIFE.

GENERAL  ELECTRIC

You see, the Zoneline® heat pump has I.C.R....an Internal Condensate Removal system that cuts winter condensation to a minimum. Instead of dripping down the sides of your building, it's redirected into the room air for a more comfortable inside and a much drier outside.

So now your high rise can reap all the benefits of heat-pump heating and cooling without adding to your installation costs.

For further information, write J.A. Michelsen, Mgr. Cont. Mkt., General Electric, AP-4-132, Louisville, KY 40225.

Circle No. 344



Literature continued from page 140

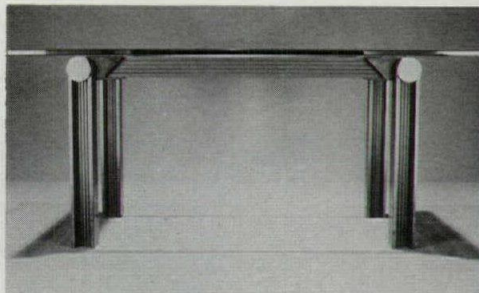
**Hi Art steel ceilings**, wainscoting, mouldings, and friezes in authentic turn-of-the-century designs are illustrated in a 72-page copy of the company's 1909 catalog. Most of the designs offered then are still available. Catalog 350 costs \$3 and can be ordered from W.F. Norman Corporation, P.O. Box 323, 214-32 N. Cedar St., Nevada, Mo. 64772-0323.



**Ceiling ornaments** of fiberglass-reinforced cement plaster include medallions, brackets, capitals, mouldings, cornices, and specialty items. Three complete ceilings consist of medallion, moulding, and border. All are described

and illustrated in a 16-page brochure. The company also does custom restoration and reproductions. For a copy of the brochure, send \$2 to Dovetail, Inc., Box 1569, Lowell, Mass. 01853.

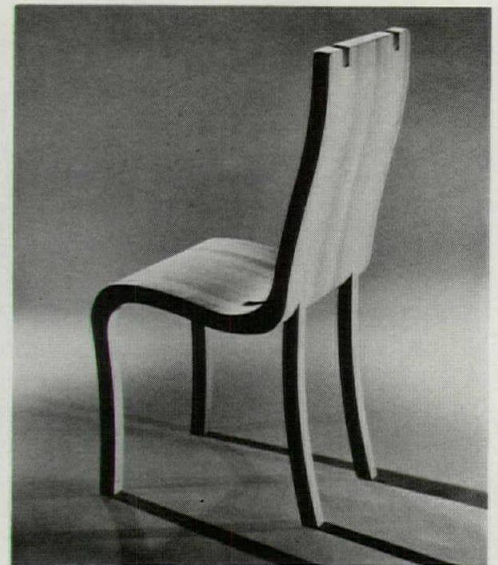
### Other products



**An elegant table** of bent cherrywood, lacquer, and brass with glass top is part of the new Dakota Jackson Couture Collection. Other pieces in the group are a desk and a bureau. Dakota Jackson, Inc. Circle 124 on reader service card

**The Santa Barbara umbrella** has solid oak ribs and braces, a solid mahogany staff, and an oak finial. Covering is natural cotton canvas or solution-dyed acrylic fabric available in eight colors. The hardware is solid brass, and there is a portable steel base. Sizes are 9-foot, 11½-foot, and 13-foot octagons, 11½-foot and 13-foot squares. Options include a custom lining, a vinylized storage cover, and an easy open/close pulley

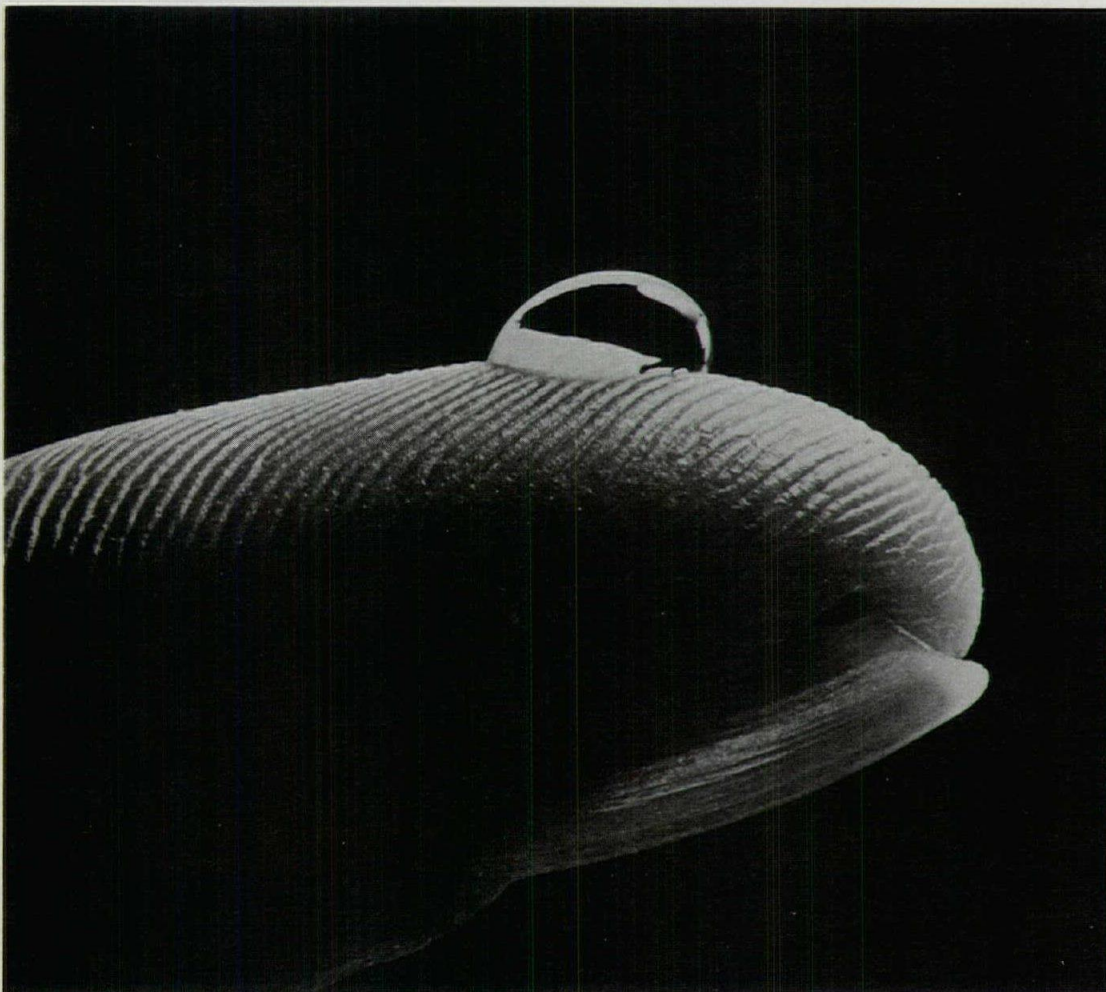
system. Santa Barbara Designs. Circle 125 on reader service card



**The Onandaga side chair**, carved in sections from solid ash and reassembled, is contoured for body comfort. Designed by Paul Mayen, the chair has rear legs that are extensions of back sections, indented at the top, with corresponding indentations at the rear of the seat. Intrex, Inc.

Circle 126 on reader service card

**Color-Wall tambour** can be made from any manufacturer's laminate to add color to interiors. It has darkened [Products continued on page 144]



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**THE LAST  
THING  
YOU NEED  
IS A LEAKY  
ROOF.  
THE FIRST  
THING  
YOU NEED  
IS TAMKO.**

Manufacturers of AWAPLAN,<sup>™</sup>  
TAM-GLASS,<sup>™</sup> and TRI-SIX.<sup>™</sup>  
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Circle No. 389 on Reader Service Card



# STARK STANDS ALONE

For a reputation that endures,  
specify the wall that endures: **Stark SGFT**

Too often, a wall material that looks good today may prove to be an embarrassment tomorrow. The problem is particularly acute when it comes to prefaced masonry materials.

A wall of Stark Structural Glazed Facing Tile (SGFT) will endure decades of use and abuse, while a wall built of "glazed" concrete block may look faded and shabby within a few years. Yet the installed cost of a four-inch SGFT wall is usually less than that of a similar "glazed" concrete block wall.

The reason for the superiority of SGFT is quite simple: it is the **only** faced masonry material manufactured as a single unit from clay. The body and ceramic glaze are fired together at over 2000° F. This process gives SGFT a wear factor of less than 15 with unmatched durability and ease of maintenance. In fact, SGFT wipes clean with plain soap and water.

SGFT stands alone in its resistance to chipping, peeling and fading - even in the presence of harsh chemicals, steam or direct sunlight. It is far superior to any other faced masonry material in fire resistance and thermal efficiency.

Stark stands alone in offering a unique combination of benefits and cost effectiveness, as the following chart reveals.

Material	Cost Instl. (per sq. ft.)	Taber Wear Factor	Flame Spread	Smoke Density	Mfg. to ASTM C-126	Minimum Compressive Strength*
SGFT	\$6.90	less than 15 @ 1000 g 1000 cycles	0	0	Yes	1500 psi
"Glazed" Concrete Masonry Unit (CMU)	7.10	less than 130 @ 1000 g 500 cycles	under 25	under 50	No	600 psi
Ceramic Tile/CMU	6.90-8.12	varies	under 25	0	No	600 psi
Epoxy Painted CMU	up to 6.83	needs repainting	varies	varies	No	600 psi
Epoxy Painted Drywall/CMU	4.06-9.36	needs repainting	varies	varies	No	600 psi

Sources on request.

\*Hollow loadbearing masonry units

Before you specify your next masonry job, see our complete catalog in SWEET's 4.4/St. For direct assistance, call our toll-free service hotline: 1-800-321-0662. In Ohio, call collect (216) 488-1211. Stark Ceramics, Inc., P.O. Box 8880, Canton, Ohio 44711.

Circle No. 384 on Reader Service Card

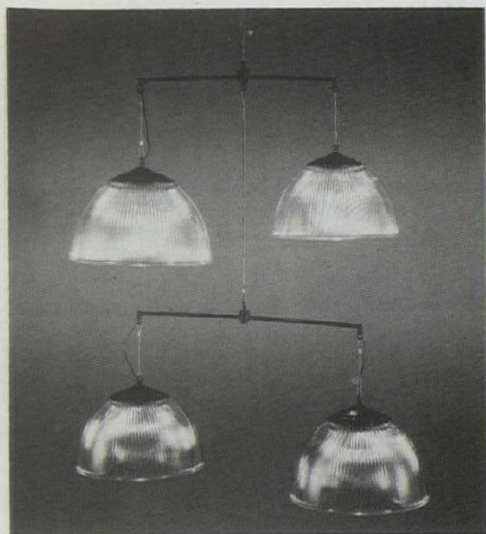
**stark**



Products continued from page 142

V-grooves and 2-inch groove spacing for a contemporary appearance. Color-Wall is available as Class I material with a fire-retardant core when a fire-rated laminate is used. Forms & Surfaces.

Circle 127 on reader service card



**Mobile 213 lighting fixture** has four domed shades of ribbed glass hung from a black structure. It is 3' x 3', 4'-4" high, and uses 60-watt bulbs. In addition to the standard fixture described, the design can be made to specifications in any size or color and with any number

of lights. The American Glass Light Co. Circle 128 on reader service card

**The Rhodes coffee table**, designed by Raymond Jurado, has a polished steel frame with brass details, a glass top, and acrylic legs that suggest classical columns. The table is available in several coffee table sizes and as a dining table. Les Prismatiques.

Circle 129 on reader service card

**The Tempress II single-lever shower/tub control** blends hot and cold water in a balancing chamber. If cold-water pressure is reduced, the hot water is also restricted to prevent scalding. Back-to-back installations can be made by rotating the cartridge 160 degrees. Danfoss, Inc.

Circle 130 on reader service card

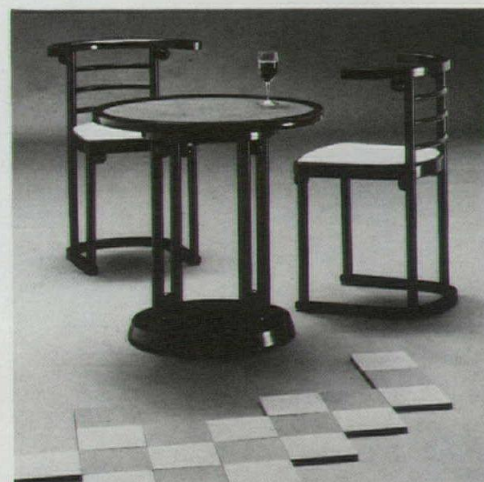
**The Kinnebrew Continuum Shelter**, 50 feet long, suitable for transit malls and transfer points, is designed for durability, low maintenance, and vandal resistance, as well as appearance. Frame members are 4-inch-diameter aluminum tubing finished in bronze baked enamel and assembled with vandalproof connectors. Glazing is bronze tempered glass or coated polycarbonate. Roof panels are constructed of aluminum composite material. Scyma Div., Michigan Industrial Packaging.

Circle 131 on reader service card

**Fancy Cuts<sup>TM</sup> cedar shingles** are available in nine patterns: round, half cove,

diagonal, arrow, fish scale, square, octagonal, hexagonal, and diamond. Of genuine cedar, they are suitable for use on Victorian design buildings. The shingles are assembled into 8-foot-long panels on special order. Shakertown Corp.

Circle 132 on reader service card



**The Fledermaus café chair**, designed by Josef Hoffmann for the Fledermaus Cabaret and first produced by J & J Kohn Co. in 1905, has been reproduced by Thonet since 1980 in its classic reproduction series. The companion table, produced after 1908, has a steam-bent American elm frame with a round or square top and optional brass trim on the base. The top is covered in vinyl, [Products continued on page 146]

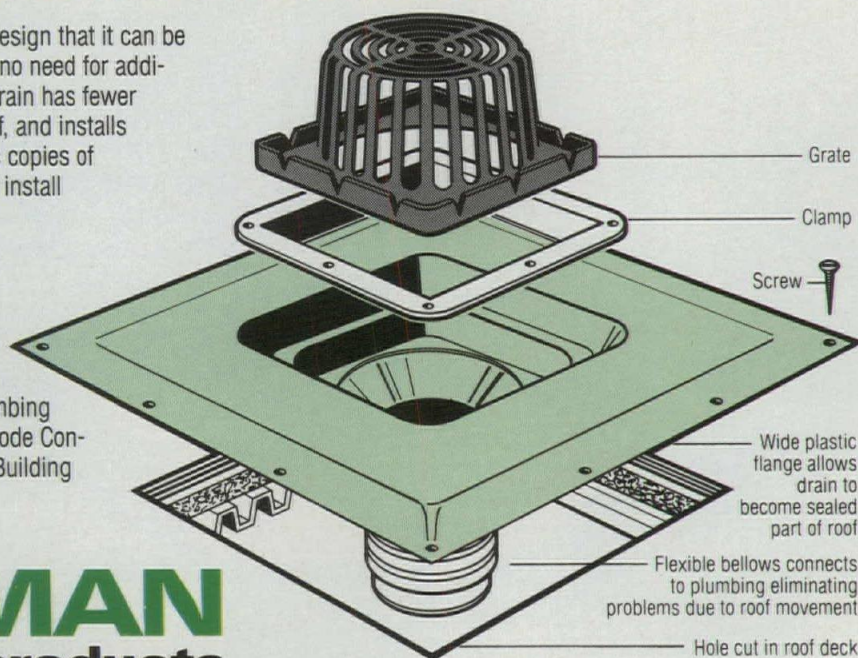
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# Freyer Series





Products continued from page 144

leather, genuine marble, or plastic laminate. Thonet.

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**Dekguard coating system** seals concrete slabs and decks against water and chloride, yet permits water vapor transmission. The two-coat system consists of an oligomeric alkoxy-silane coating that bonds chemically to the substrate and a methyl methacrylate polymeric coating that reduces water absorption but permits passage of interior water vapor. The coating is ultraviolet resistant and will not turn yellow, according to the manufacturer. Preco Industries, Ltd.

Circle 134 on reader service card

**Surewall® Fiber Reinforced Plaster (FRP) insulating system** provides a weather-resistant exterior insulation envelope. It consists of FRP, polystyrene insulation boards, woven wire lath, and accessories. The one-coat finish is fiber-reinforced acrylic resin in modified Portland cement plaster. Thermal resistance of R-19 is possible with standard four-inch stud walls in combination with R-11 batt insulation. Surewall Producers Council.

Circle 135 on reader service card

**SunSheet® aluminum coil** with high-performance, durable metallic selective surface is expected to increase the effi-

ciency of solar air collectors by 25 to 40 percent. It is available .008 inch to 0.20 inch thick, in standard widths of 36 inches or 48 inches, in coil or sheets. It is suitable for site-built active or passive solar air collector systems. Berry Solar Products.

Circle 136 on reader service card

**Sailshade® insulating Roman curtain** is a five-layer construction consisting of metallized, 95 percent reflective fabric on the window-facing side, two ¼-inch thick layers of closed-cell foam sandwiching a triple-laminated three-mil aluminum layer, and an interior fabric. Sail hardware and cord are used in construction. In raised position, the panels, of graduated size, nest behind the outer panel to leave the window uncovered. It is suited to sloped glazing, window walls, and clerestories. Cloth Construction for Architectural Environments.

Circle 137 on reader service card

## Other literature

**Vertical blind** catalog shows louvers of solid vinyl or fabric and mounting hardware. Perforated vinyl louvers reduce glare and reflect up to 75 percent of heat radiation with a minimum obstruction of the view. There are both fixed and traverse carriers. The 24-page catalog includes information about energy savings and reduction of cleaning costs compared to other window

treatments. Specifications are provided. LouverDrape, Inc.

Circle 206 on reader service card

**Designers Portfolio** is a 68-page catalog of lighting including a flexible tubing containing tiny low-energy long-life bulbs. The tubing is shown as curtains and chandeliers and formed into shapes. Also shown are track lighting, lighted coffers, several louvered ceiling designs, and enclosed and gasketed lighting for security or damp locations. The catalog includes several types of shielding: baffles, diffusers, louvers, and lenses. Neo-Ray Products, Inc.

Circle 207 on reader service card

**Total Window Systems** catalog for new and retrofit commercial construction, consists of 60 pages of information about commercial windows, patio doors, and skylights. It provides energy and performance data, construction methods and materials, sizes and details for each of several styles of windows, skylights, and bays. Caradco Corp.

Circle 208 on reader service card

**Escalator planning guide** for the Moduline 100® escalator system provides architects and contractors with clear acetate construction overlays for transparent and opaque balustrades at a scale of ¼" = 1'. The kit also includes a set of building support and flooring details and construction details. Moduline 100 is a modular escalator design that [Literature continued on page 152]



**How to get your cedar design off the ground.**

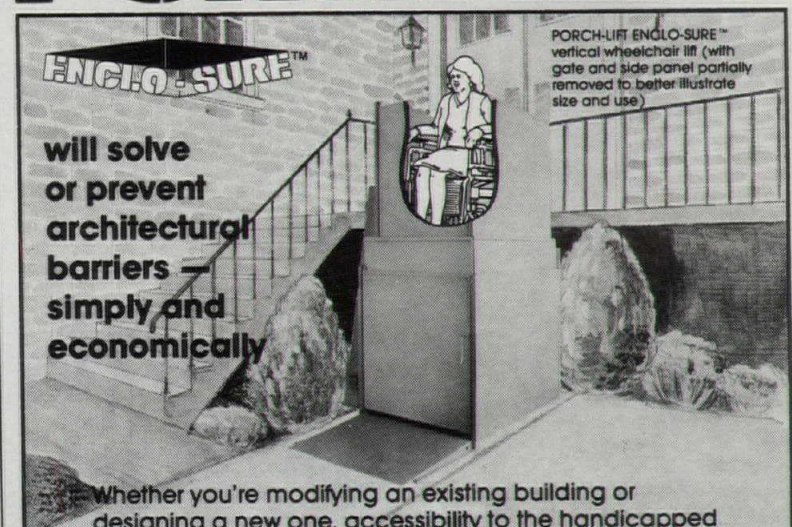
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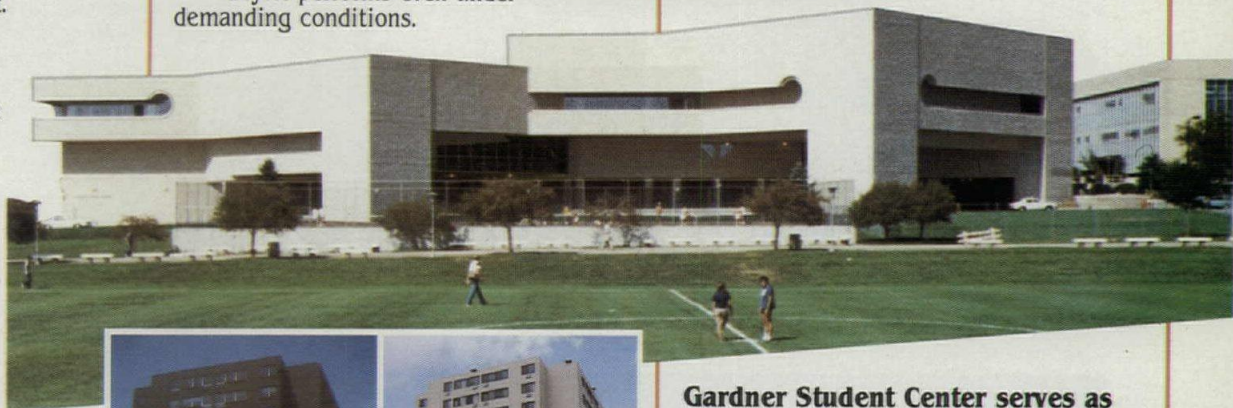
Positive and negative wind load testing has been conducted on full scale wall assemblies in accordance with ASTM E330 procedures.

Dryvit performs even under demanding conditions.

## Dryvit retrofit gives office building a fashionable Art Deco facade.

5500 Yale Street, Englewood, Colorado, was a precast concrete eyesore before architects Ginsler and Associates designed this retrofit. Taking advantage of

Dryvit's design flexibility and the expertise of the applicator, they were able to incorporate aesthetic relief. Bands of 1½" x 7" Dryvit Insulation Board create flowing lines, adding drama to the balconies.



## Gardner Student Center serves as entrance gate to the University of Akron, Ohio.

Believe it or not, a road goes through this building. Karl R. Roher & Associates, architects, turned to Dryvit to accomplish the archways and soffits their design required. Dryvit's impact system, employing Panzer® Mesh, was used in high traffic areas. Also gained: a cost-effective, energy-efficient building that blends beautifully with the campus.

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Look for Dryvit in the General Building File of Sweets Catalog under Section 7.13/DR



Before

After

## Face-saving retrofit adds insulation to St. Paul's Housing for the Elderly.

Detroit, Michigan, winters had taken their toll of this 12-story uninsulated building.

Smith Associates, Inc., the architects, chose Dryvit Outsulation to solve their problems. In addition to adding needed insulation, the Dryvit retrofit provided an attractive weather-resistant surface. Occupants now enjoy a better level of comfort while the building's appearance upgrades the entire area.

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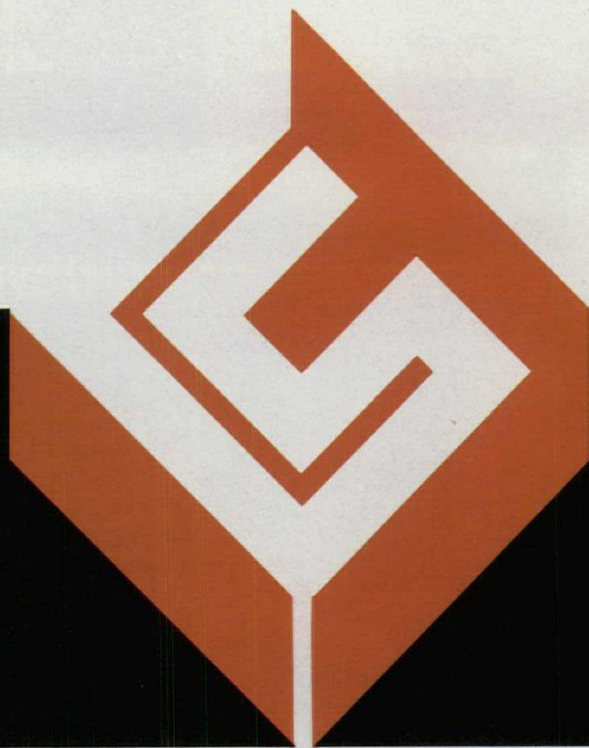


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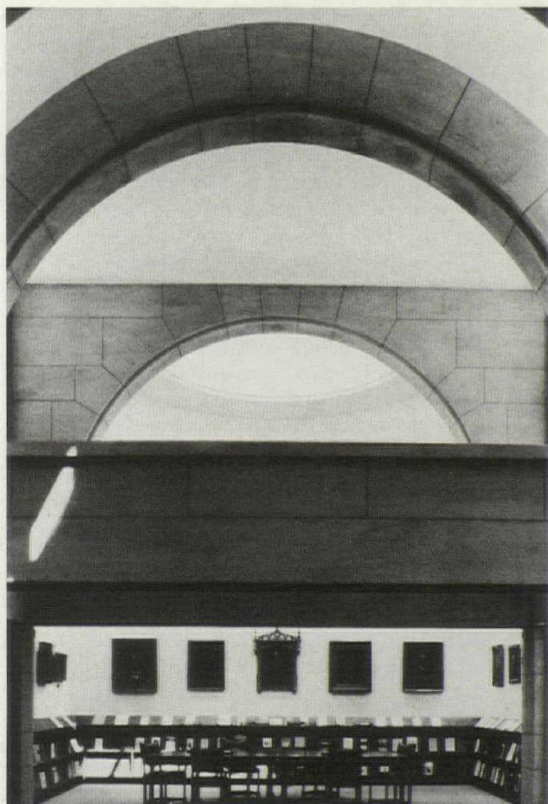
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Circle No. 317 on Reader Service Card



Coming next month



Folger Library addition, Washington, D.C.;  
Hartman-Cox Architects.

A design challenge well met will lead off the Design features of the July P/A. Architects Hartman-Cox took on the task of adding to the Folger Library in Washington in a way that not only respects the refined fabric of Paul Cret's original landmark building, but adds notable new space.

Two small-scaled interiors—one an apartment, one an office—show exceptional skill at handling unpromising commissions.

Two steel-and-glass houses—one in Chicago, one in Japan—illustrate some of the subtlety and variety that can be generated with these industrial materials.

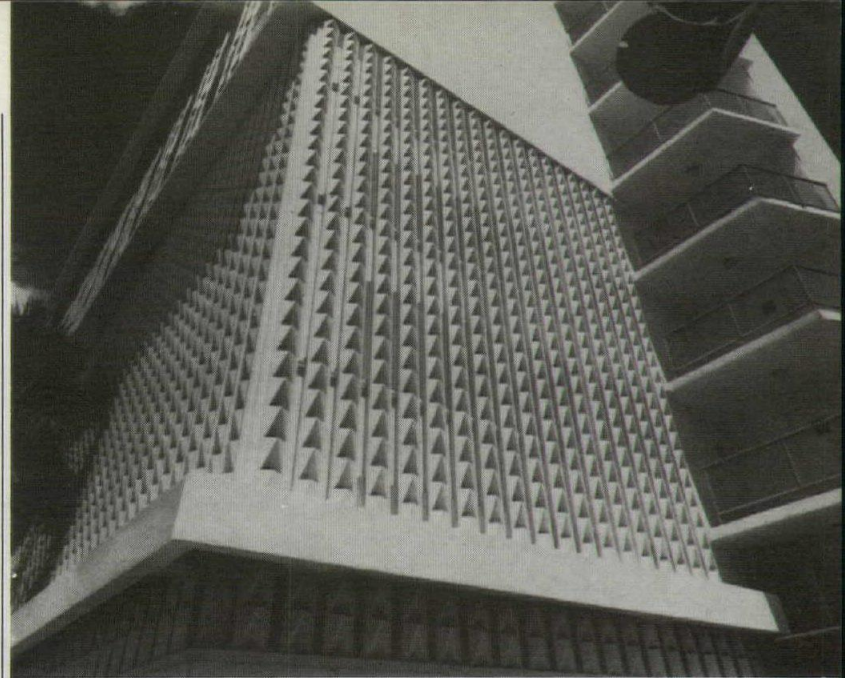
Italian Rationalist architecture of the 1920s and 1930s is the subject of a Precursor article that will examine some well-known and little-known works of the period not as historical icons, but as real buildings meeting a program and taking significant places in their urban settings.

**Technics: Acid rain** will be the topic of a feature that explains this phenomenon, its effects on buildings, and strategies for mitigating its destructive action.

**Interior technics: Flat wiring** will be discussed for its impact on interior planning, as well as the specifics of available systems and their installation.

P/A in August will focus on art museums all over the U.S. and the world. Some outstanding examples will be featured in detail, and the salient point of numerous other museums will be presented in a wide-ranging portfolio. A Technics feature will take up the timely, difficult subject of single-ply roofing.

# PA in July: Design & Technics



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provides a separate motor-drive unit for every increment of nominal rise, reducing the need for heavy structural reinforcing, complex drive systems, and massive motors, says the manufacturer. Westinghouse Elevator Co.

Circle 209 on reader service card



The Solarium Patio Door of Western Hemlock with thermal glass, deadbolt lock, and four hinges, can be used as a

direct replacement for aluminum sliders. The door is completely assembled and weatherstripped and has a wood-framed aluminum screen. A full-color illustrated brochure provides installation and finishing instructions. E.A. Nord Co.

Circle 210 on reader service card

'Ergonomics and the science of successful seating,' a 20-page brochure prepared by GF with the assistance of Stoll-Giroflex Co. of Switzerland, explains the importance of properly designed office seating. Text, with illustrations, discusses in lay terms the effects on the body of sitting and how a well-designed chair can reduce fatigue and strain. GF Furniture Systems, Inc.

Circle 211 on reader service card

Reflections indirect lighting systems are offered in two series: symmetrical illumination for open areas and asymmetrical for use on walls and columns. Both are said to offer highly efficient lighting at relatively low watts per square foot. They are described in a 16-page brochure that illustrates and provides specifications for both series. It also shows typical plans for open office installations and light distribution patterns. Guth Lighting.

Circle 212 on reader service card

Low Voltage Lighting catalog provides basic information about low voltage fixtures that offer reduced energy use,

reduced air-conditioning load, and long lamp life. The catalog includes specifications for recessed and projector lights and photometry data for different fixtures. It also provides information about transformers, dimmers, and filters. Capri Lighting.

Circle 213 on reader service card

'Low Voltage Recessed Lighting' brochure describes energy savings resulting from lower voltage requirements and reduced air-conditioning costs. The eight-page catalog lists features of the fixtures, describes their installation, and illustrates styles available. Charts show dollar values of reduced lighting and air-conditioning energy. Photometric and design data are included. Progress Lighting.

Circle 214 on reader service card

Octron<sup>™</sup> fluorescent lamps operate at reduced wattage, compared with ordinary F40 cool white lamps, with virtually no reduction in light output, says the manufacturer, for an estimated saving of 25 percent. The one-inch-diameter lamps are made in two color temperatures—warm and cool. Because of their smaller diameter, they store in half the space of ordinary 1½-inch, four-foot lamps. A four-page brochure provides performance data, space comparisons, color rendering indexes, spectral energy distribution curves, and specifications. GTE Products Corp.

Circle 215 on reader service card

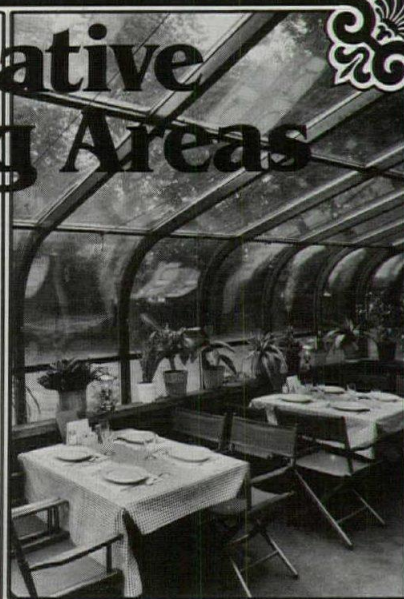
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# MANAGEMENT PERSONAL TIME

MONTHLY SECTION ON TRAVEL AND PERSONAL INTERESTS

## BIG BUSINESS' BEST GOLFERS

BY JAMES E. BRAHAM

**A**lthough pro Tom Kite pocketed the money, "those two guys from American Express," as many TV viewers later described them, made off with the memories in the Bing Crosby National Pro-Am golf tournament at Pebble Beach in February.

In this celebrity tourney attracting heavy hitters from corporate as well as entertainment and sporting ranks, retired American Express Co. chairman Howard Clark teamed up with professional Bob Gilder to win the handicap title. Jim Robinson, Mr. Clark's successor at American Express, finished in even more spectacular style, sinking a pitch shot over a bunker on the famous 18th hole.

Both achievements were shown on national TV and amateur golfers—even CEOs—seldom rate such attention. When Mr. Robinson danced in elation, Westinghouse Electric Corp. Chairman Robert Kirby, a fellow golf fanatic watching at home, felt a similar stirring. "Who wouldn't dance?" he remarked.

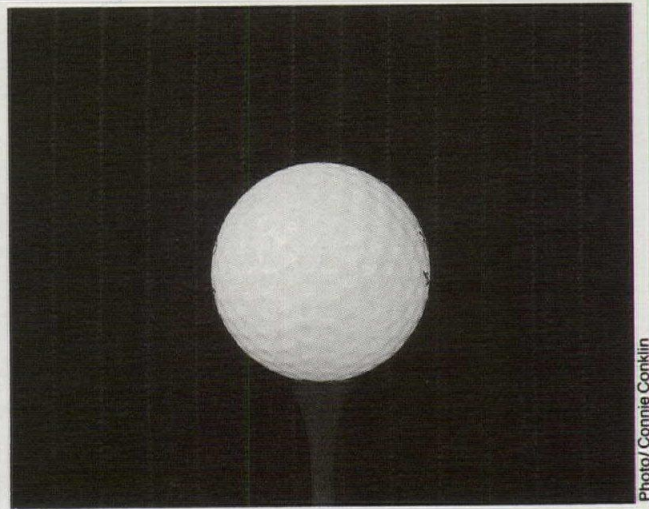
Mr. Clark's long third shot (a wood) to the green on No. 18 also was memorable. It helped save his par-5 and win. "I hit my first shot into a bunker and I didn't think much about it—but then Gilder hit out of bounds and got a 2-stroke penalty, so at that point I was all alone. I thought I had to get a par [6 would have been good enough], and in front of 10 million people," he says of his grandest moment in golf.

The 67-year-old president of the International Golf Assn.—sponsor of the World Cup tournament—is accustomed to performing under pressure. After rising to president and CEO of American Express in 1960, the widower with four children next year married his present wife, Jean, who had five children.

**Nine teens!** "Yes, I was running American Express, had nine teen-agers in the family, and was trying to find enough time to play golf."

He found the time ("18 holes every Saturday and Sunday, if it could be worked out with my family") and a decade ago he carried a 2-handicap. He now has a 7-handicap, and Mr. Robinson an 8.

They're two of the better golfers swinging in high corporate circles. (For more, see the list adjoining this story). At this business level it's difficult to find the time required to



Photo/Connie Conklin

achieve the scratch scores enjoyed by the finest amateurs. Few leaders of large firms sport extremely low handicaps, and some who do are reluctant to discuss them, for fear of shareholder reaction: "What's that guy doing spending so much time on the golf course when he's supposed to be running the company?"

Mr. Kirby, who will retire as Westinghouse's chief after he turns 65 in November, calls such a reaction "overblown" and says he never has encountered it. "I would hope that every stockholder would want his chief officers fresh of mind and body," he says. "You've got to have some relaxation."

"If you have anything on your mind business-wise, it's a great relaxation to be able to go out and concentrate on golf for a while. And to play golf you really have to concentrate."

An 11-handicapper (he was once a 5), Mr. Kirby plays 18 holes "every Saturday and Sunday in the summer, and I study the game a lot. I have all sorts of machines at home, and I can hit balls inside. And in the winter I get down to Florida a couple of times and play a week or so."

**The best?** Mr. Kirby is one of three executives on the Tournament Policy Board of the PGA Tour. E. Cardon "Card" Walker (7-handicap), chairman of Walt Disney Productions, also helps guide the pro-golf tour. The group chairman is E. M. "Del" de Windt, chairman of Eaton Corp., who ranks as one of the best of all golfers high in the corporate world.

Once a scratch golfer, Mr. de Windt now plays to a 3 or 4 handicap. That he is able at his age (62) to still shoot consistently in the mid-70s is a tribute to his swing and his mental approach to the game. He declined to be interviewed about his golfing skills, but those who have played with him rave about his ability.

"Del has a marvelous swing," Mr. Kirby says. "It's so compact, and unsusceptible to error." His son, Del de Windt II, a scratch golfer himself (as was the Eaton CEO's father), is impressed by his father's ability "to get his game going so quickly every spring," and credits this to "his very simple, solid approach to golf, and wonderful attitude. He has such a great theory—turn your brain off and let 'er fly."

"He has the advantage of not having lost much distance



off the tee over the years, which affects many senior golfers. We both drive in the 245-255 [yard] range—he's in great shape."

The Eaton chief is also, says his son, "the fastest golfer I've ever seen. We've played 18 holes in a cart in less than 2 hours."

A manufacturer's representative in Troy, Mich., the 39-year-old Mr. de Windt has played in three National Amateurs and still plays in U. S. Golf Assn. tournaments, something for which his father never had time. The Eaton CEO has played in the Crosby and in the Hawaiian Open pro-am, however. The latter usually coincides with the annual meeting of United Air Lines, of which he is a director.

**Golf on the go.** Many executives take advantage of business trips to get in some golf. In a survey of big-company CEOs by Dunlop Sports Co. a few years ago, 81% of the respondents said they play golf and 64% reported they take their clubs along on business trips. Their mean handicap was 19, with 12% reporting 10 or less.

Says a pro who instructs many corporate chiefs: "They don't play a whole lot (once or twice on weekends usually). The reason they can still be good is that they probably played a lot when they were younger. It stays with them and they never lose it. It's what I call 'muscle memory.' They may not be as good as they used to be, but they're still good."

Some qualities that lead to success on the links are also desirable in the office. "You have to have a certain amount of coolness under pressure on the golf course. You can't blow up at the slightest difficulty. Golf requires a good degree of self-control," says Mr. Clark. "And to run a business you have to have self-control, up to a point."

"Golf is a very unusual game. It's you against yourself. It's a matter of developing your self-control, and it's a very complicated game. People who are avid golfers have many fine qualities," says Mr. Kirby, noting this is one reason why the game has such executive appeal.

Mr. Clark agrees. "I certainly met a lot of people playing golf, a good bunch to know. But people talk about all the deals made on the golf course. That's a bunch of nonsense. There's no time for anything like that. But if the

next week after you play, and somebody says do you know anybody at XYZ Corp., you can call them up. That's useful."

Many executives say a camaraderie is formed from playing golf for several hours with someone—and then socializing over a drink in the clubhouse—that is not present in many other sports.

"That's part of the fun of golf: to meet all those people. Those associations don't hurt in business relationships," Mr. Clark says. "I knew Jim Robinson's father from playing golf with him in Augusta [home of the Masters tournament and one of the six golf clubs to which Mr. Clark belongs]. Golf is certainly not the reason we hired Jim Robinson, but it's the way I met him."

"It's a way to talk to your customers," chips in a pro at a leading country club. "You get to know who you're talking to, so you're not just talking to a company. Being a good golfer sure doesn't hurt." ■

## PRACTICE MAKES PERFECT

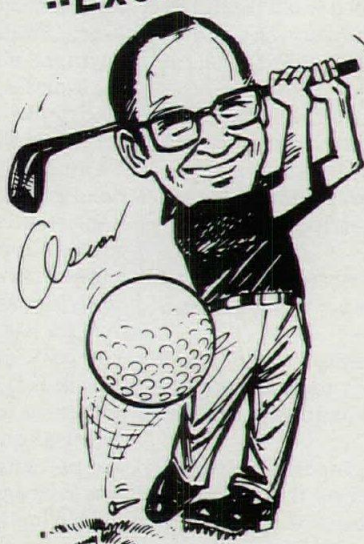
Should you someday wind up in a foursome with any of the golfers listed here, be prepared. They're some of the finest amateurs to be found in the executive ranks of American business. The list—far from complete, of course—was compiled by IW after checking with golf authorities, golfers themselves, and close associates of the executives.

### Scratch (or better)

**Richard E. Evans**, vice president, House of Stainless Inc., Chicago.  
**James R. Gabrielson**, president, Fred S. James & Co. of Georgia Inc., Atlanta.  
**William Hoffer**, vice president, Hoffer Plastics Corp., South Elgin, Ill.

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## PERSONAL

**Robert C. Lewis Jr.**, vice president, Welded Tubes Inc., Warren, Ohio.  
**Fritz Schmidt**, vice president, Worthington Industries Inc., Columbus, Ohio.  
**Stan Thompson Jr.**, executive vice president, Wyandotte Paint Co., Detroit.

### 1 handicap

**John Baldwin**, vice president, First Boston Corp., New York.  
**Gary Hollister**, president and COO, Merle Norman Cosmetics Inc., Los Angeles.  
**Robert O. McCall**, president, Hunter Corp., Chicago.  
**Richard Siderowf**, vice president, Shearson/American Express Inc., Westport, Conn.

### 2 handicap

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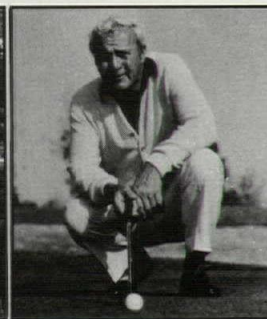
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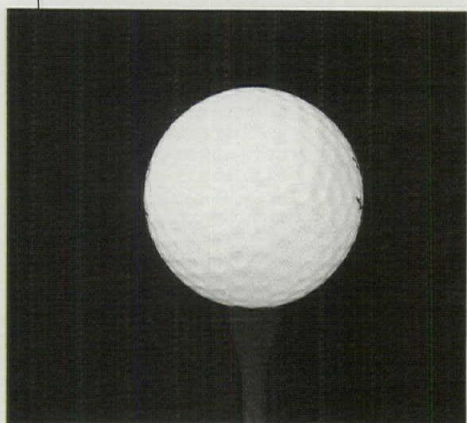
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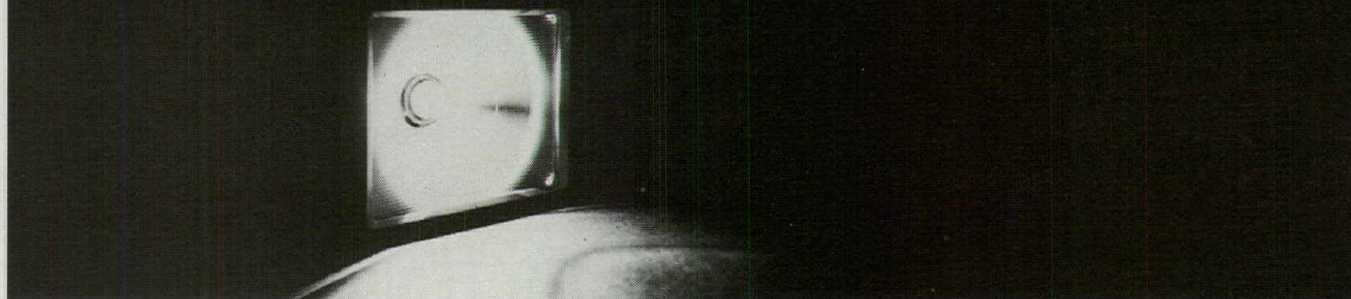
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[continued on page 162]

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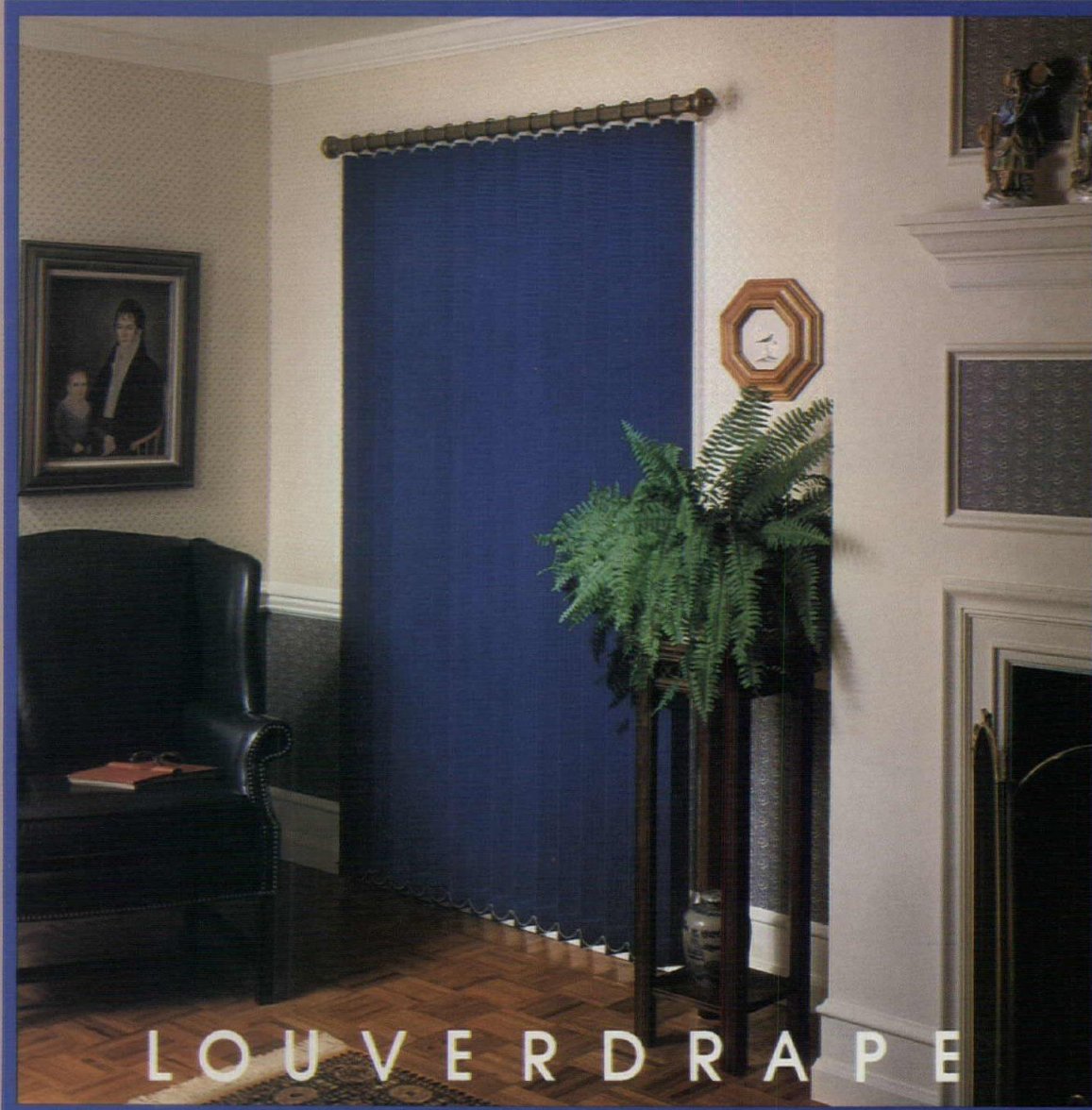


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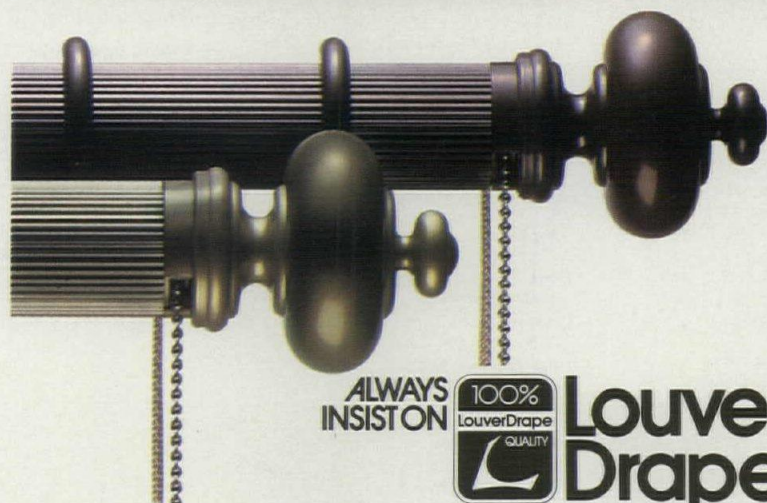
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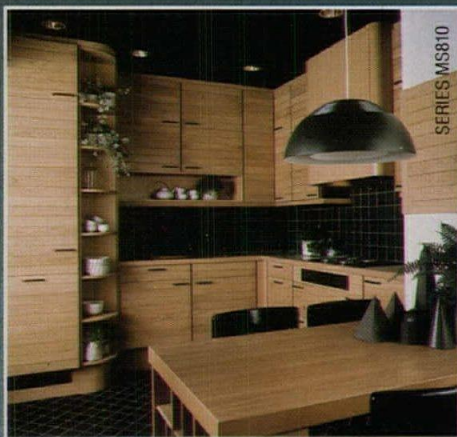
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Stage shelter at the University of Miami, Florida  
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