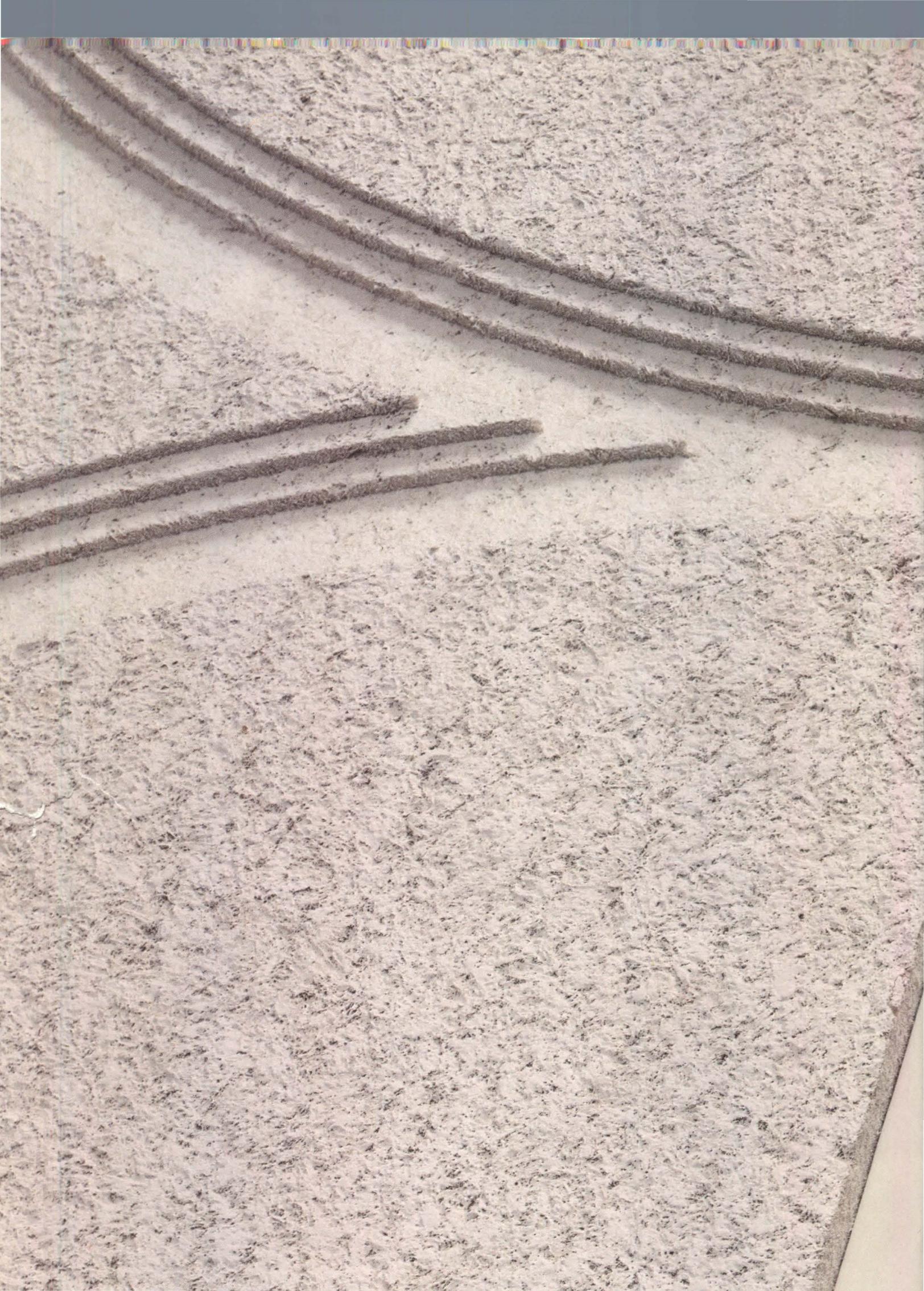


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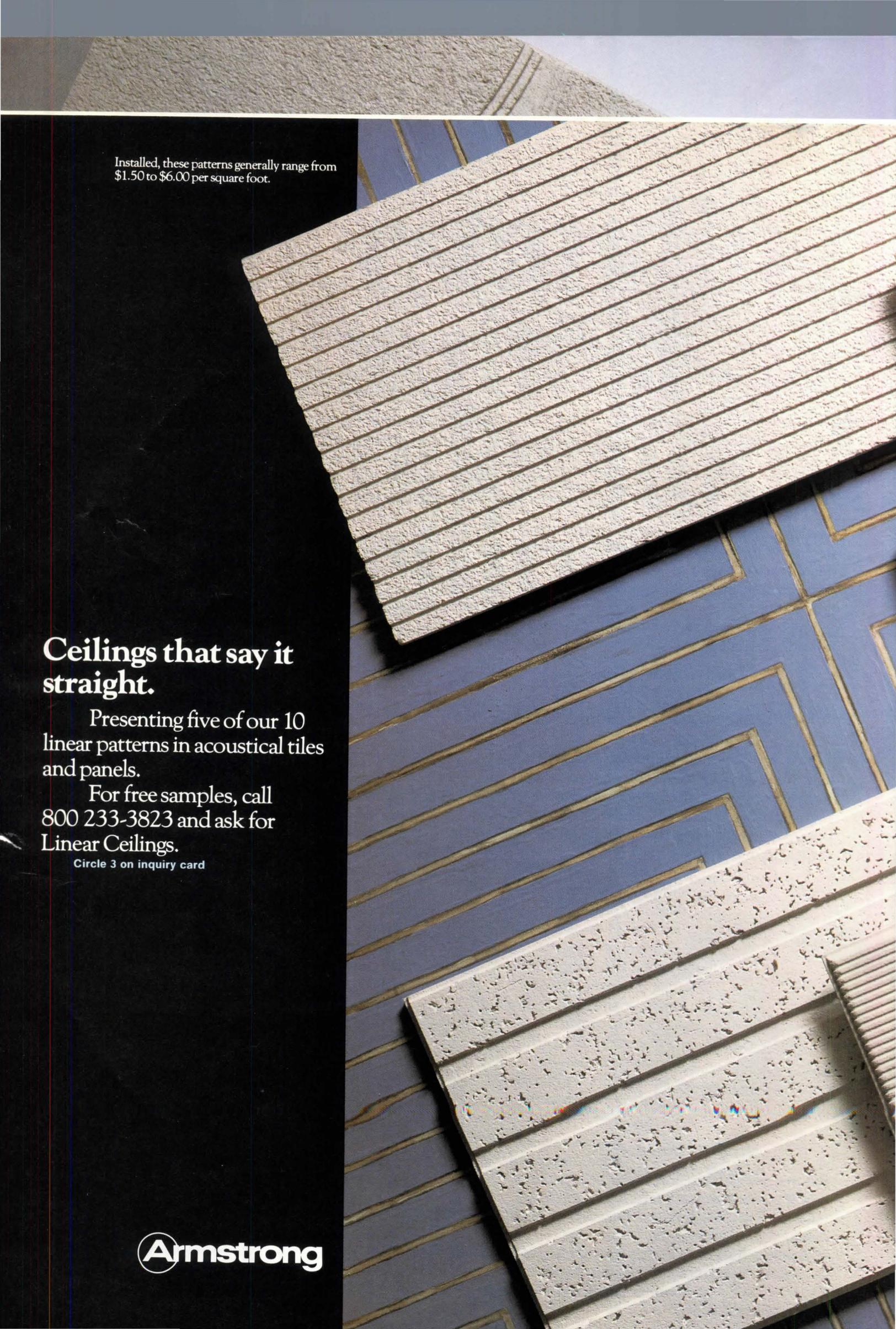
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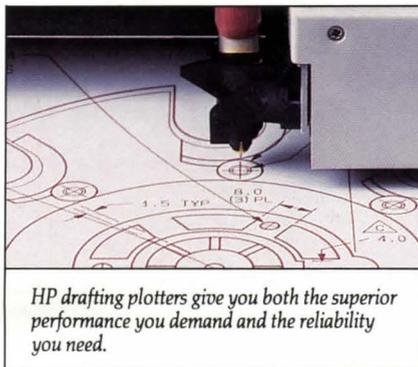
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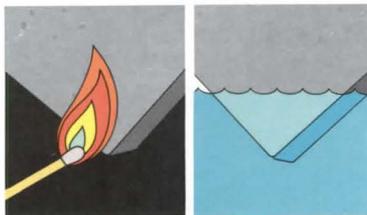
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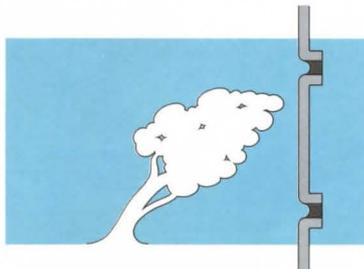
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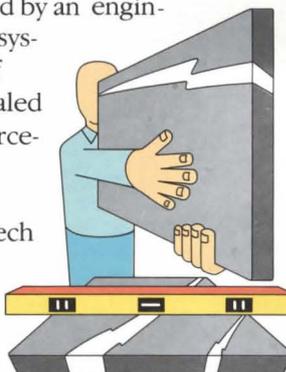
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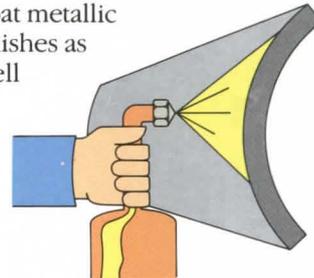
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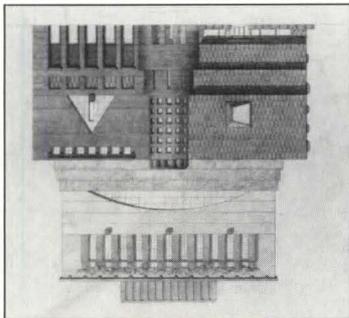
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We all appreciate Mr. Graves's efforts to turn the modern movement on its head, but isn't this going a bit too far?
Matthew Arnold, Architect
Leesburg, Virginia

After reading the letters from Homer Williams and Ronald Zochers [RECORD, October 1985], I am finally compelled to put my two cents in.

These architects refer to Michael Graves's solutions as "mockery masquerading as architecture" and to Graves as a pseudo-intellectual neo-neo-classicist. While I often find Mr. Graves's solutions less than masterful—and indeed the exterior of the Whitney expansion rather poor—I have had several opportunities to listen to him in lecture, dialogue, and critique.

What I enjoy about Graves is the argument for an architecture that responds to people. Zocher seems to view anything that has already been done as necessarily superficial, and this is a haughty, narrow-minded attitude. Certainly one that I would not want messing with any of our buildings. The fact is, people are affected by what they have experienced. I view the architects' greatest skill as the understanding of the problem, and the manipulation of shapes, forms, colors, and textures to provide the best possible solution. Some of the shapes, forms, and techniques that will have the desired effect on people already exist. It is precisely because they exist that they have meaning for people. Although architecture is a very inexact art, pity the "architect" who doesn't understand this or whose palette is limited to a certain stylistic or conceptual approach. Those who view this "postmodernism" with disdain because of what they see in magazines should go in for a little continuing education, and that includes students in the architecture schools who apply skewed grids to circulation systems and think that what reads in plan also reads in space.

The point is, talented architects embrace concepts and esthetic strategies that will produce successful environments for people through time, rather than those

that were popular while they were in training. It is not modernism or postmodernism or anythingism at fault, but bungling applicators in the guise of Architects.

Michael Faber
Real Estate Developer
Walsh, Higgins & Company
Chicago

I wholeheartedly agree with Mr. Kimball's critique of the proposed design for the Whitney Museum expansion [RECORD, October 1985, page 113 et seq.]. One wonders how or why respected giants of the field (other very successful architects) support this design. One gets the feeling that none of those giants, Architect Graves, or Director Armstrong really appreciates the existing building. In short, this is simply another example of one architect running roughshod over the work of another.

If we give Mr. Graves the benefit of the doubt and suppose that he is simply responding to his client's program, then one wonders why the Whitney would engage an architect whose ideas seem to be directed 180 degrees away from Marcel Breuer's. Without being intimately acquainted with the particulars, perhaps it is presumptuous of me to criticize, but there seems to be here an atmosphere of intense arrogance destined to destroy a New York City landmark that is as much an object of art as the pieces it houses.
Caldwell R. Dial, Jr., Architect
Columbia, South Carolina

I write a somewhat belated "thank you" for an article that was published in RECORD in October 1973, titled "Planning a Mailroom." To ensure that the proposed campus mail facility for the University of Maryland would remain efficient and up-to-date in spite of the growing demands and shrinking resources typical of all institutions, I conducted a literature search during the programming stage.

Incredible as it may seem, we found the decade-old article from RECORD the most useful and comprehensive literature.

The new facility is due for completion in early December. Only 12 years from article to building!
Ferdinand S. Johns, Associate Professor of Architecture
University of Maryland
Annapolis

Correction

The structural engineers for the Tenacre Dining Room in Princeton, New Jersey [RECORD, October 1985, pages 148-151] were Blackburn Engineering Associates, P. A., with Terry O. Blackburn as principal-in-charge and John Harrison as project engineer.

January 17-20

Convention, National Association of Home Builders; at Dallas. For information: National Association of Home Builders, 15th and M Sts., N. W., Washington, D. C. 20005 (202/822-0200).

January 29-31

CONDES '86, 13th annual design/contract show, with the overall theme "Information That Works"; at the World Trade Center, Dallas. For information: Deborah Eschenbacher, Dallas Market Center, 2100 Stemmons Freeway, Dallas, Tex. 75207 (214/655-6100).

January 30-31

National conference, "A/E Design & Management of Asbestos Abatement Projects," sponsored by the Education and Training Division of Hall-Kimbrell Environmental Services; at the Orlando Marriott Hotel, Fla. For information: Kim Beck, Conference Coordinator, Hall-Kimbrell, P. O. Box 307, 946 Tennessee St., Lawrence, Kan. 66044 (800/445-0682).

February 5-7

Conference, "Design Management and the Computer," directed to management professionals in graphic design, communications and industrial design, sponsored by the Design Management Institute; at the Charles Hotel, Cambridge, Mass. For information: Susan Sandomirsky, Design Management Institute, 62 Huntington Ave., Boston, Mass. 02115 (617/232-4496).

February 9-12

9th annual convention and exhibit of the National Roofing Contractors Association; in Las Vegas. For information: Robert Wiseman, Public Relations Manager, National Roofing Contractors Association, 8600 Bryn Mawr St., Chicago, Ill. 60631 (312/693-0700).

February 20 through March 30

Exhibition, "Master Pieces," showing three-dimensional creations of furniture from major paintings; at the Gallery at Workbench, 470 Park Ave. South, New York City.

February 24-29

MICAD '86, Third International Conference and Exhibition on CAD/CAM, sponsored by World Computer Graphics Association and MICAD; at the Palais des Congrès, Paris. For information: Caby C. Smith, World Computer Graphics Association, Suite # 399, 2033 N St., N. W., Washington, D. C. 20036 (202/775-9556).

February 26-27

ACC Craftfair Baltimore, sponsored by American Craft Enterprises, Inc., a subsidiary of the American Craft Council; at the Baltimore Convention Center. For information: American Craft Enterprises, Inc., P. O. Box 10, New Paltz, N. Y. 12561 (914/255-0039).

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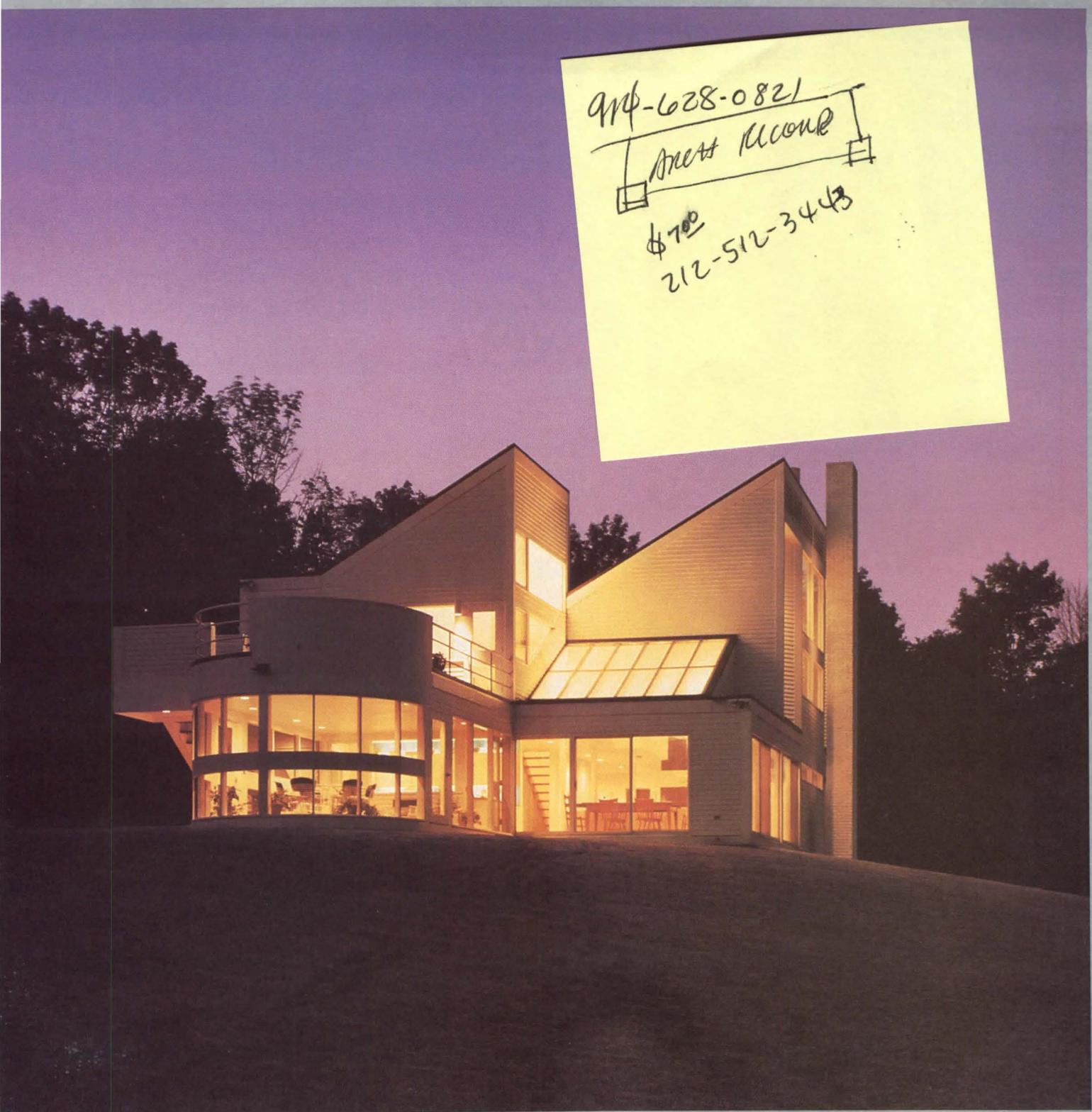
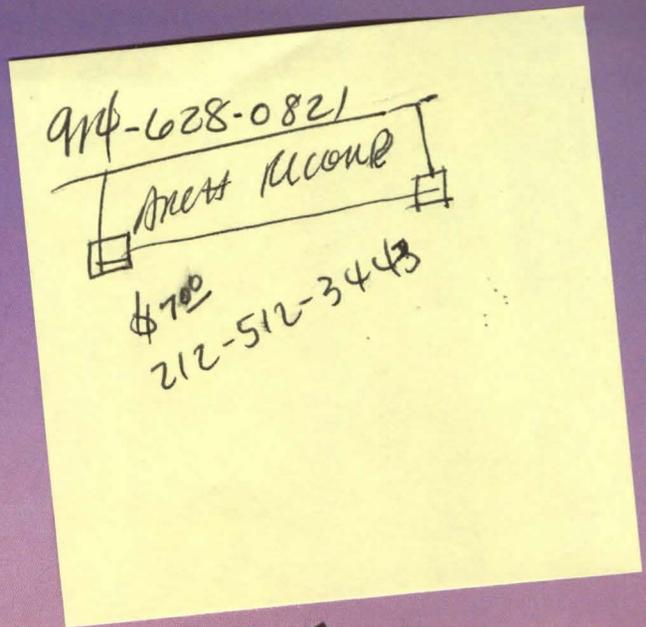
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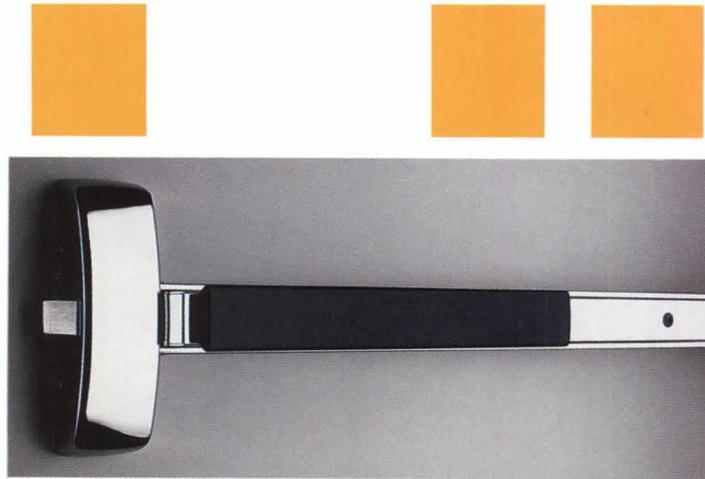
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Housing the homeless—a challenge to architects

A little over a year ago, the Housing Committee of the American Institute of Architects took a significant and laudable step. At a meeting in St. Paul, Minnesota, the members gathered to try to educate themselves on the plight of the homeless. In Washington last October, at the AIA national headquarters, the Committee held its second symposium on this issue. For two and one-half days, 199 attendees, in recognition of the need for the architectural profession to speak for the homeless, met to try and find ways to act quickly to meet this ever-worsening crisis.

In his opening address John Philips, chairman of the Housing Committee, told the audience what most of it already knew—that almost every city in the United States is now engulfed in the tide of homelessness. He reported that some estimates have found that there are one million homeless persons in this country; other surveys argue that there are not more than 250 thousand, while still other methods of counting claim that there could be as many as three million homeless persons in the United States. Said Philips: “We are in the middle of economic recovery, low inflation, declining interest rates, and yet the stories of people living in cars, families seeking shelter in welfare offices are alarming. Indeed the poor have not shared in this economic recovery, but are suffering from it in one way or another. We as a group here today need to develop a strong advocacy, while we form a coalition to deal with homelessness. Basically, we need to create housing. Housing, housing, and more housing. We need to bring together, as we are doing today, all of the resources and energies and capabilities in the nation to generate housing.”

Philips pointed out that the obvious collective goal of architects should be to eventually put emergency shelters out of business. But for now, he urged, architects must bring their creative capabilities to the design of such shelters while continuing to assist in the design and development of housing of all types. Social workers at the conference offered design criteria for shelters, grim but essential. Some items: they must be safe; have kitchens designed for fast-moving lines, more like a cafeteria than a soup line; dormitory space with a central monitoring station much like a hospital intensive care unit with partitioned, comfortable bed spaces off in each corner. Shelters need a barber shop, a separate rest room for volunteers, wheel chair acceptance, etc. Thanks in part to the Committee's efforts as a catalyst, concerned architects are beginning to develop new design approaches for shelter construction, and case studies of promising designs were presented at the symposium. RECORD editor Deborah Dietsch covered the meetings and will describe and analyze these designs in a forthcoming issue. And we will continue to pay attention. In the words of chairman Philips: “We need to understand with compassion the causes of homelessness, the rights of the homeless person, and the value of a home.” RECORD not only agrees, but believes that the architectural profession has the tangible skills to make a promising start. *Mildred F. Schmertz*

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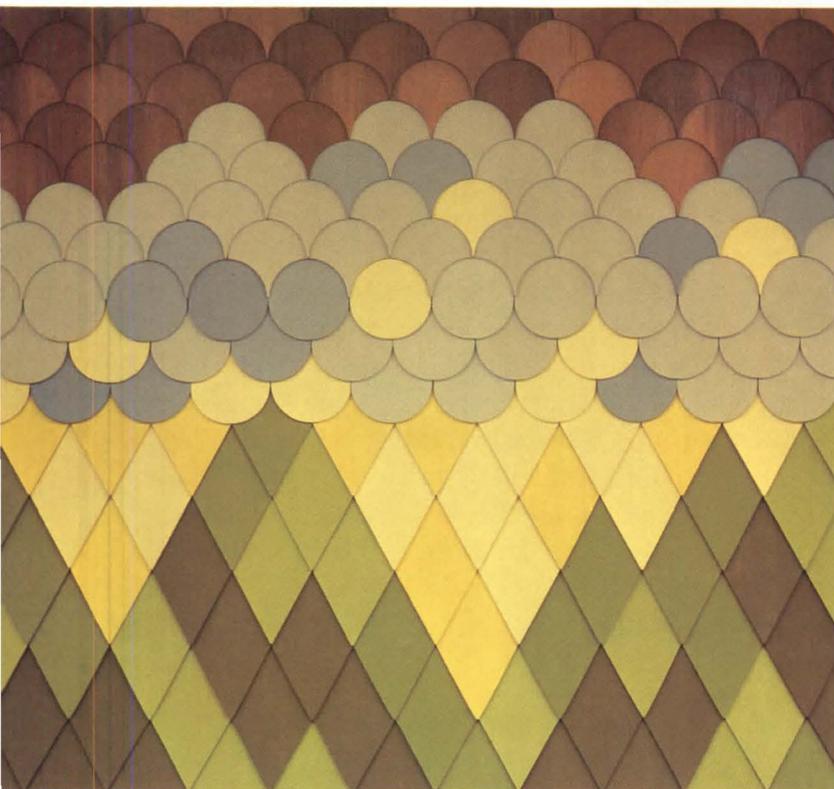
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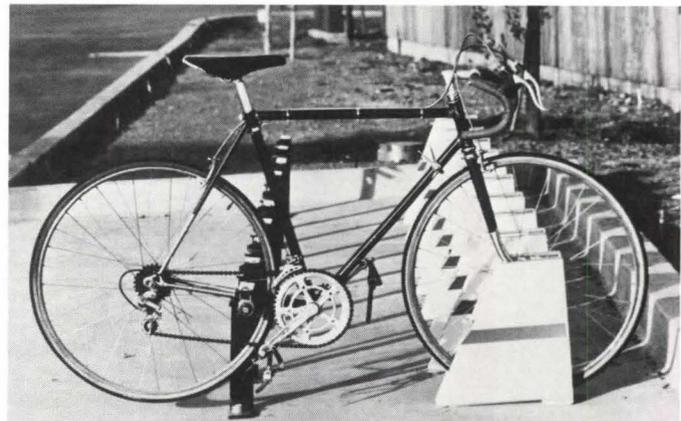
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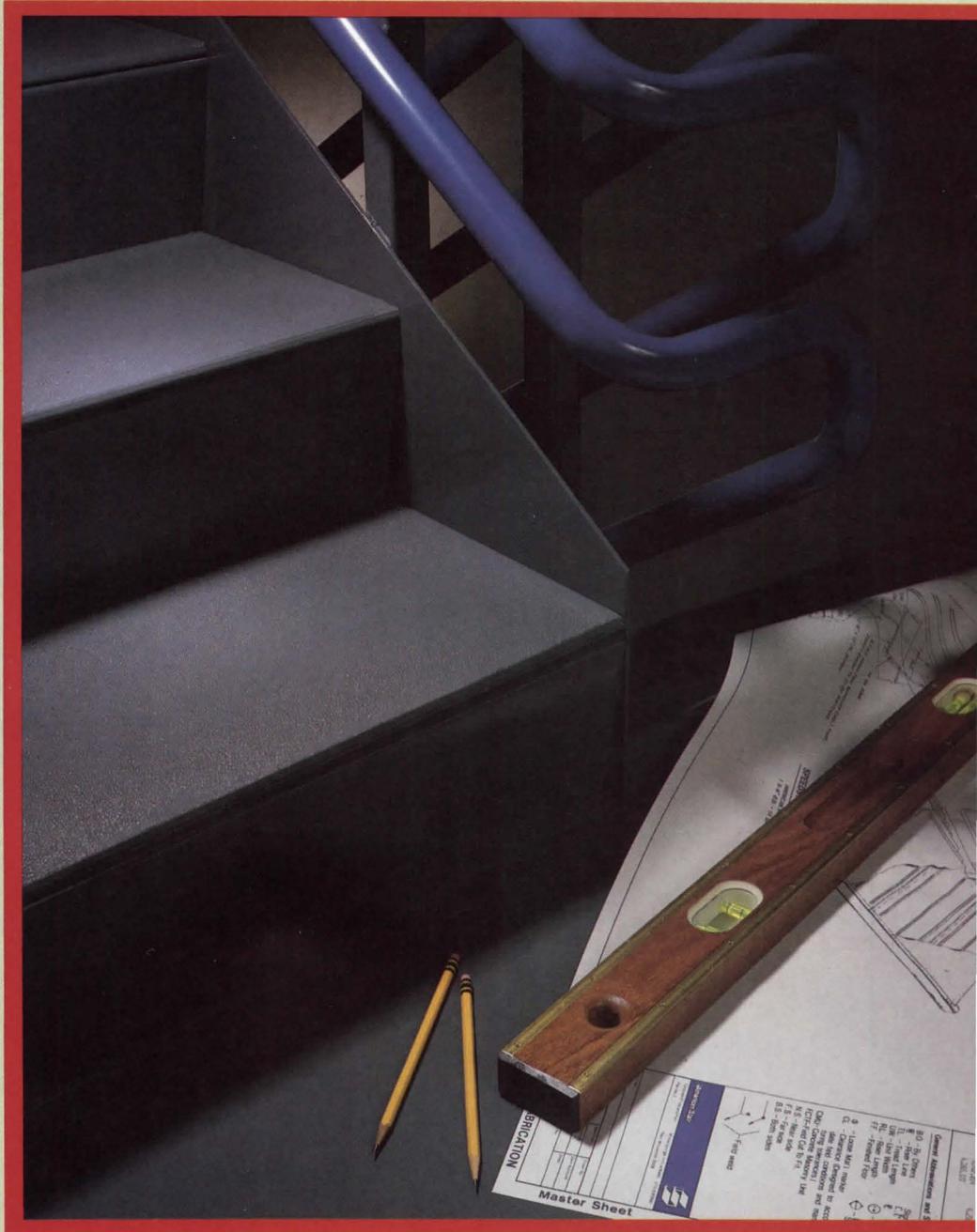
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Since the college is an institution dependent on private funding, the budget was very tight and required meticulous attention to the quality and economics of every detail. As a result of careful analysis, Vulcraft super long span joists were selected over the two other alternatives: conventional trusses and rigid frame construction. In fact, the savings afforded by using Vulcraft joists contributed significantly to the college's ability to initiate the project.

Throughout the job, Vulcraft worked closely with the engineers and architects, providing engineering assistance, including preliminary designs on the roof system.

In addition to the joists, the job also utilized Vulcraft's new 3"N 20 gauge deck. Because of the strength of the deck's 3" rib, fewer joists were required: thus, further reducing the construction costs.

When your job calls for spanning a large area, put Vulcraft to the test. You'll find our super long span joists and steel deck make straight A's not only in economics but in engineering as well.

For more information concerning Vulcraft steel joists, joist girders and steel deck, or copies of our joist and steel deck catalogs, contact the nearest Vulcraft plant listed below. Or see Sweet's 5.2/Vu and 5.5/Vu.

P.O. Box 637, Brigham City, UT 84302 801/734-9433
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P.O. Box 59, Norfolk, NE 68701 402/644-8500
P.O. Box 1000, St. Joe, IN 46785 219/337-5411

VULCRAFT

A Division of Nucor Corporation

Architects/Structural Engineers: Toltz, King, Duvall, Anderson & Associates.
Steel Fabricator: Ted Mannstedt and Son, Inc. General Contractor: Kraus-Anderson Construction Company, Minneapolis Division
Steel Erector: Vickerman Construction Company

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...Without Looking Like You Have.



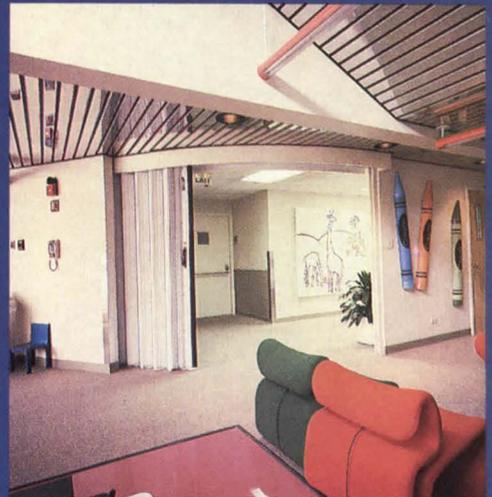
Around The Codes...

Few would argue with the critical need to conscientiously comply with building codes.

Yet, for those who's task it is to design beautiful, functional buildings, the influence of volumes upon volumes of code requirements is undeniable.

Fortunately Won-Door's folding fire doors now provide a way to comply with critical building codes and still allow you to design your building to look and function the way you choose.

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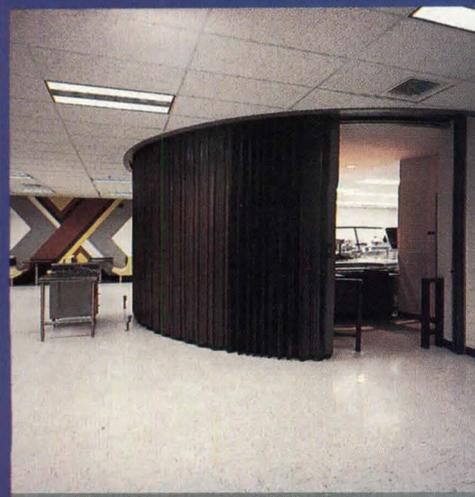
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SPECIAL EXTERIOR SYSTEM USING STYROFOAM BRAND INSULATION AND INSUL/CRETE

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tions. STYROFOAM fits into practically any area where insulation is needed and INSUL/CRETE finishes are available in a wide range of colors and textures. There's virtually no limit on design creativity.

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concrete, metal and wood frames.

Whether it's new construction or retrofit, in roofing or interior and exterior wall applications, Dow has the products and systems along with extensive research and development capabilities designed to meet your every need.

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EXT. 25 - EXTERIOR WALLS.



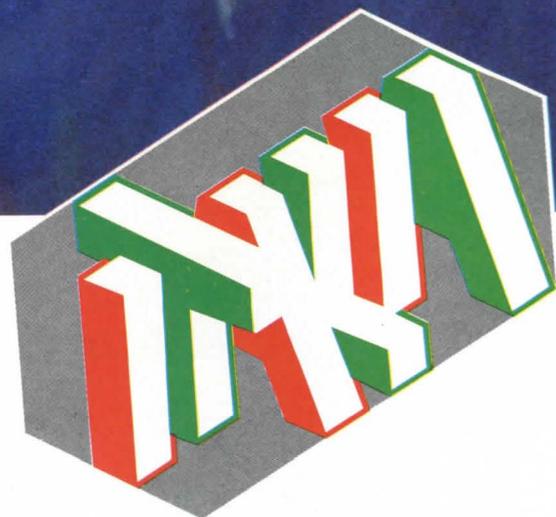
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WINDOWS & DOORS from ITALY

THE BUILDERS' SHOW

The 42nd Annual
Convention & Exposition of the NAHB
Dallas Convention Center, Dallas, Texas
January 17-20, 1986



WINDOWS & DOORS from ITALY

LIST OF EXHIBITORS

ALUCASA

ALUCASA S.p.A.
Via Caldera, 21
20153 MILANO
Tel. 02/452821
Tlx. 331022 ALUIT -
331684 ALUIMI

After starting up in 1957, ALUCASA has belonged to the EFIM-MES State Company since the '70s. The firm produces door frames in a light alloy, continuous facades, double ceilings, solar panels and other building components.
ALUCASA's objectives for the next few years are the promotion of research and the completion of important works of continuous facades, door and window frames for cheap housing and council housing, and finished components, such as double ceilings, frames, movable walls, floating floors.

coop legno

COOP LEGNO
Via S. Eusebio, 4/G
41014 CASTELVETRO (MO)
Tel. 059/702712
Tlx. 511601 COPLE I

The COOP LEGNO Doors Division, specializes in the production of "Giano", a double-sided door made of different but coordinated materials (precious wood, lacquer, glass, mirrors, and a vast range of colours and fabrics), that makes it suitable for every type of environment.
Double-door models complete the range suggested for '86, and make this collection a decidedly innovative programme as far as interior design is concerned.

FERROLEGNO

FERROLEGNO S.p.A.
SS 28 Del Col di Nava, 26
12060 MAGLIANO ALPI (CN)
Tel. 0174/66224
Tlx. 222201 FERPOR I

FERROLEGNO S.p.A. has been working in the field of timber door-frames construction for over half a century. Over the last ten years, it has specialized in the production of internal doors as items of furniture, characterized by an elegant design, the use of choice timber (walnut, oak, teak), and a craftsman finish.
The company operates at an international level, exporting to selected Swiss, French and Arab customers.

ISA ISA ISA

ISA S.p.A.
Via Cervano, 19
31010 CORBANESE (TV)
Tel. 0438/24214
Tlx. 440859 ISA SPA I

ISA S.p.A. has been active in the components market in the construction field for 15 years; it produces continuous facades of the Curtain Wall type, metal double ceilings, aluminium door and window frames, sliding or panel and special reinforced frames, exterior panelling, fixed or movable sunblinds, burglar-proof double doors. Because of its operational flexibility, the new patented system of mobile walls that may be fitted out as with the "Autoparete", is to be particularly noted.

SjB

SANTINO & BRUNO IEZZONI
S.n.c.
SS 553 Km. 29,500
64032 ATRI (TE)
Tel. 085/87302
Tlx. 600150 API TE X
FLLI IEZZONI I

The Santino & Bruno IEZZONI Company was set up in 1930. It has changed from a craftsman's firm to an industry that operates over a surface of 15,000 m², with a workforce of 50. It has a production output of 30,000 items a years.
The firm produces wooden doors and front doors in a wide range of models, with a patented shutter system and interchangeable central components that may be adapted to suit any furnishings. It is a particularly prestigious series.
The firm exports chiefly within Europe.

M

MANDELLI S.p.A.
Via Rivabella, 90
20045 BESANA BRIANZA (MI)
Tel. 0362/949755
Tlx. 330194 MACOBE I

MANDELLI S.p.A. employs 130 workers in a new 12,000 sq. meters plant equipped with the most sophisticated machines available today in the foundry field.
The Italian company offers a wide array of door handles, window handles, door pulls and knobs, switch plates and coat hooks.
Most of their products are manufactured in cast brass, in satin or gold finishes, plain or classic styles.
MANDELLI exports to several countries.
Seeking U.S. Representatives.



OTLAV S.p.A.
Via Volta, 26
31025 SANTA LUCIA
DI PIAVE (TV)
Tel. 0438/700941
Tlx. 410578 OTLAV I

Founded in 1956 this Venetian industry, that was the first Italian producer of hinges, produces 400 000 hinges daily for windows, doors and furniture of all types and materials: wood, iron, aluminium and p.v.c. Constant meticulous controls with its products have allowed expansion and appraisal in the most selective markets in the world: in 1980 Otlav exported 35% of its production, in 1985 70%. The Otlav company is today one of the leading European manufacturer of hinges. With an enthusiastic and competent technical staff, it is able to respond to any particular need with a range of 600 models available in 5 diameters.



ROSADA S.p.A.
Via Nazionale, 55
31010 CASTELLO ROGANZUOLO
(TV)
Tel. 0438/76441

Since starting out in the '60s, ROSADA has been producing timber door frames. With the adoption of instruments for numerical control, and the development of production lines, it has changed the production of wooden window frames from a craft product into an industrial one. The characteristics of windows made by ROSADA are the use of Douglas fir timber, the variety of colour (yellow, red, black, blue), and the typologies, the ease of maintenance, and the accuracy of the finish. The company exports to France, Egypt, and the United States.



INDUSTRIE SECCO S.p.A.
Via Terraglio, 195
31022 PREGANZIOL (TV)
Tel. 0422/3891
Tlx. 410337 SECCO I

INDUSTRIE SECCO S.p.A. has been producing sections, accessories, equipment for making metal door frames, special door frames in steel and special alloys, and door frames for bioclimatic architecture for over 50 years. It has carried out a large number of jobs in Italy and abroad: public buildings (schools, gymnasiums, museums, swimming pools...) and single dwelling houses. SECCO also produces a range of pre-painted steel door frames, "Formula K", able to meet various thermic insulation requirements.



SIGE
SS 408 Km. 40
52022 CAVRIGLIA (AR)
Tel. 055/966281
Tlx. 574267 SIGE I

SIGE has been working since 1970, with a surface of 6,000 m² and a workforce of 55, producing exterior frames (windows and shutters), and wooden doors in different designs, using a technologically advanced system. The timber is treated with preservative under vacuum and the items are assembled mechanically with screws and nuts. This system allows about 200 models of different sizes to be assembled. SIGE also produces over 20 models of interior doors and steel frameworks for external door frames. The firm exports chiefly to the Middle East and Europe.



SIS S.p.A.
Via Croce Bianca
46040 CAVRIANA (MN)
Tel. 0376/82431
Tlx. 300604 SIS I

SIS produces complete doors, windows and shutters used in the construction of dwelling houses, educational institutions and hotels. Founded in 1962, it employs 200 workers on a surface of about 100,000 m². SIS produces "Rinova", a timber window frame for renewing already existing frames, which may be fitted over the old one without having to call in a specialized worker. The firm exports to Libya, Algeria, Saudi Arabia and Luxemburg at present, and will shortly export to South Korea, Indonesia, Hong Kong, Malaysia, South Africa and the USA.



TRE PIU S.p.A.
Via V. Veneto, 14
22060 CABIATE (CO)
Tel. 031/766000
Tlx. 335292 TRE P I

TRE PIU S.p.A. sprang in 1982 from TRE P, a door producing firm; TRE PIU produces the "Rever", a door created by a great designer: the Cini Boeri Ass., which has obtained several awards for technological research and quality. The "Rever" door has jambs with the borders lacquered in matt black, and the panels lacquered in polyester in various colours, veneered in various kinds of wood, covered with rubber, fabric or wallpaper. The firm exports to the Middle East, Switzerland, Great Britain, Germany and Hong Kong.

WINDOWS & DOORS from ITALY





federlegno-arredo

Federation of wood, cork, furniture and furnishing industries.

Head-office:

10, Via Toscana
00187 Roma
Tel. 06/484601
Telex 613124

Offices:

19, Via Mascheroni
20145 Milano
Tel. 02/4696986
Telex 334690

Federlegno-Arredo (the Italian Federation of Wood, Cork, Furniture and Furnishing Industries) is the national association, belonging to the Confindustria (the General Confederation of Italian Industry), uniting 2,000 companies working in the field of wood, cork, furniture and furnishings.

Federlegno-Arredo is organized in 5 category associations: Assolegno (sawn products; veneers; plywood); Edilegno (wood products for the building industry); Specialegno (poles and frames; various products); Assarredo (furniture and furnishings); Edilegno is made up of some 300 companies producing doors; windows; Venetian blinds; floors; prefabricated houses; massive or lamellar carrying structures.

Generally speaking, Federlegno-Arredo - both in Italy and abroad - defends the interests of the production areas it represents, and at the same time promotes technical and economic growth.



UNCSAAL

The Aluminium and Steel Building Components Manufacturers' Association

Head-office:

4, Via G. Giardino
20123 Milano
Tel. 02/860386
Telex 310392 ANIMA

Offices:

Aedilmedia S.r.l.
4, Via G. Giardino
20123 Milano
Tel. 02/878646

UNCSAAL - The Aluminium and Steel Building Components Manufacturers' Association - has among its members the representatives of all categories in trade: large manufacturers, craftsmen, "system" extruders, suppliers of fittings, tooling, and machinery. No doubt, however, the major manufacturers and the "systemists" account for the larger fraction of UNCSAAL membership, and the latter in turn, is but a very small fraction of the thousands of manufacturers involved all over the country. But the minority grouped in the Association accounts for a major share of the total production, and - above all - is responsible for practically all the technical development.



Italian Institute for Foreign Trade

Headquarters
Via Liszi, 21
00144 Roma Eur
Ph. 59921
Tx. 610160 ICERM I
Cable: INACE

What is



The Italian Institute for Foreign Trade is a public agency organized on world-wide basis, which operates in accordance with the directives issued by the Ministry of Foreign Trade. The Institute's headquarters are in Rome, and it employs about 1800 persons distributed among the headquarters, its 37 local offices in Italy and its 73 offices in foreign countries (in the near future, also Helsinki, Lyon, Osaka, Shanghai). Trade Centres are operating in Dusseldorf, London, New York, Paris, Tokyo, Toronto.

The principal function performed by the Institute is the promotion of Italian exports by providing firms with commercial and market information, assistance and consulting services for the presentation, introduction and sales expansion of Italian products in foreign markets.

How it works

- by informing Italian firms about markets, transportation, and customs, currency, taxation and insurance regulations, as well as providing all the information required to establish contracts with suitable foreign importers, as indicated on each occasion;
 - by assisting business companies in market identification and policy decisions concerning product distribution abroad, and offering, by utilizing the up-to-date electronic instruments which constitute SICE (Sistema Informativo Commercio Estero), a range of services that enable companies to achieve their export goals;
 - by promoting exports through the implementation of commercial and geographic policies, in concert with its offices abroad and the related production sectors in Italy;
 - by holding courses of foreign trade studies at its headquarters and in the various regions of Italy, in order to train specialized managerial personnel;
 - by collaborating with a special category of professional experts in the agricultural field to promote Italian fruit and vegetables, flowers and garden plants, agricultural and food industry products.
- For foreign business companies, it promotes and provides a full range of information, assistance and consulting services in order to facilitate preferential selection of Italian products by these companies and their establishment of the related contacts.

Circle 15 on inquiry card

For further information, apply to:

HOUSTON - Italian Trade
Commission
3050 Post Oak
Boulevard Suite 1090
Houston Texas 77056
Ph. (713) 6285531
Cable: ITALTRADE HOUSTON
Telex: 792021

LOS ANGELES - Italian Trade
Commission
1801 Avenue of the Stars, Suite 700
Los Angeles Cal. 90067
Ph. (213) 8790950
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Center
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New York N.Y. 10022
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Ph. (404) 5250660
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401 North Michigan Avenue
Suite 3030
Chicago IL 60611
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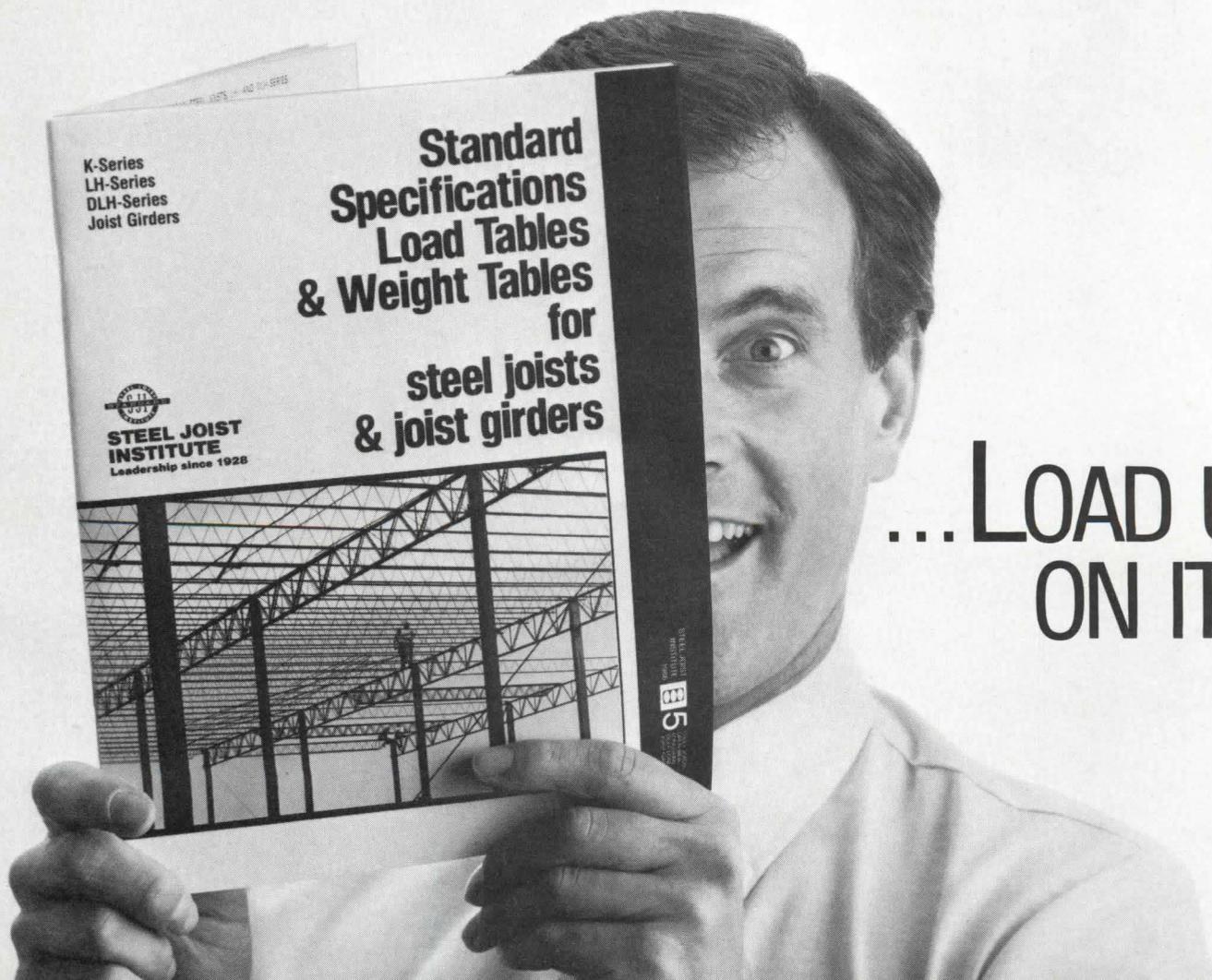
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Myrtle Beach, SC 29577

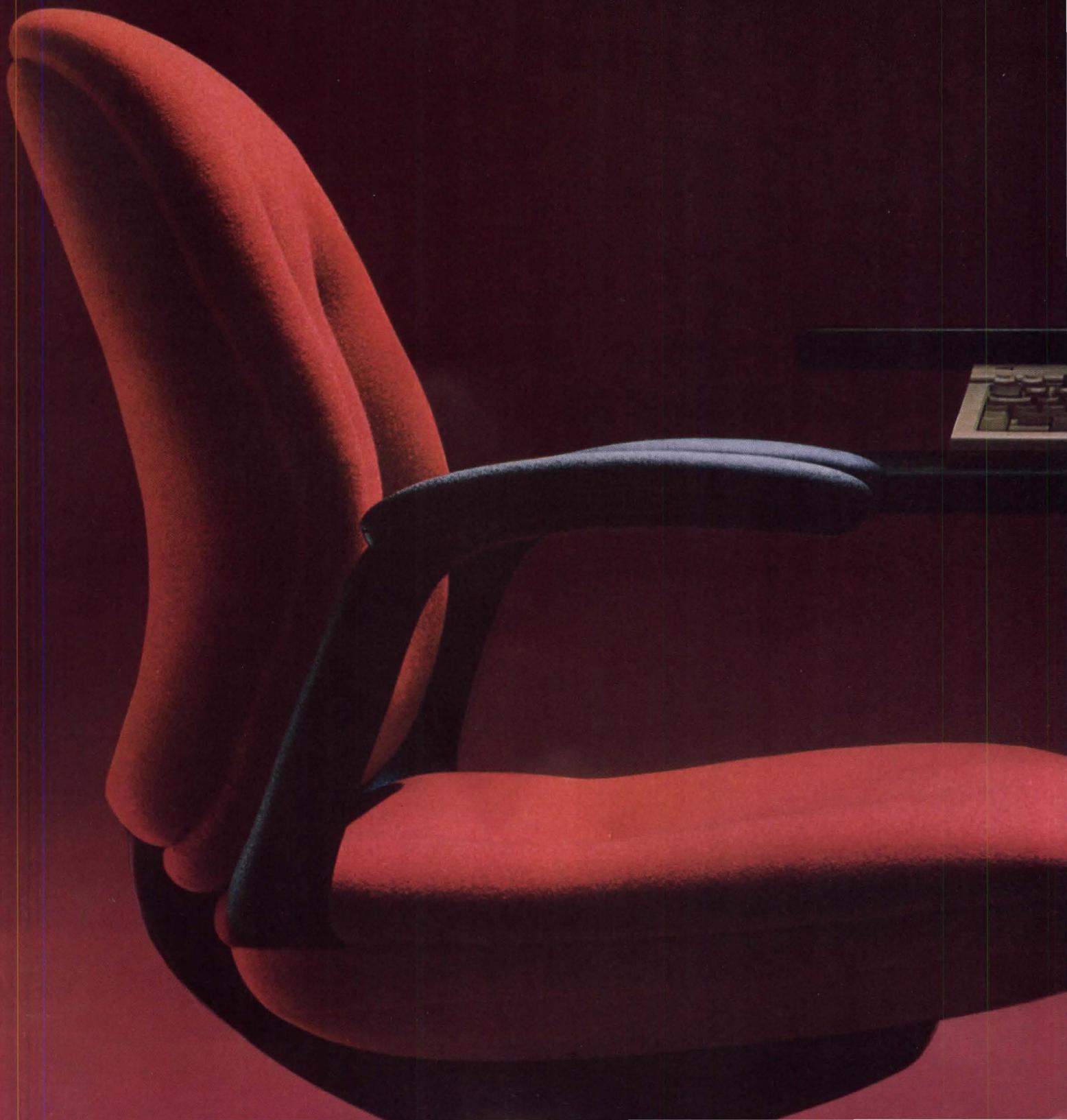


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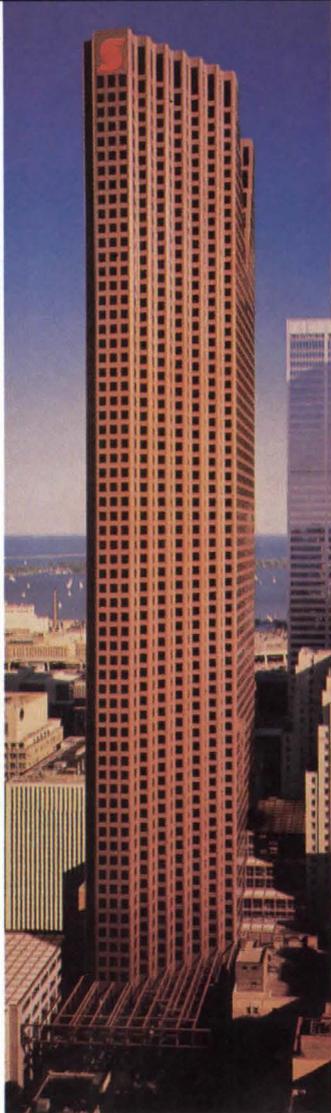


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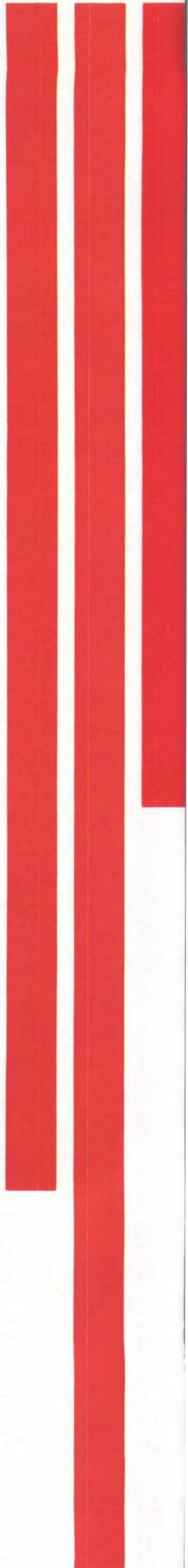
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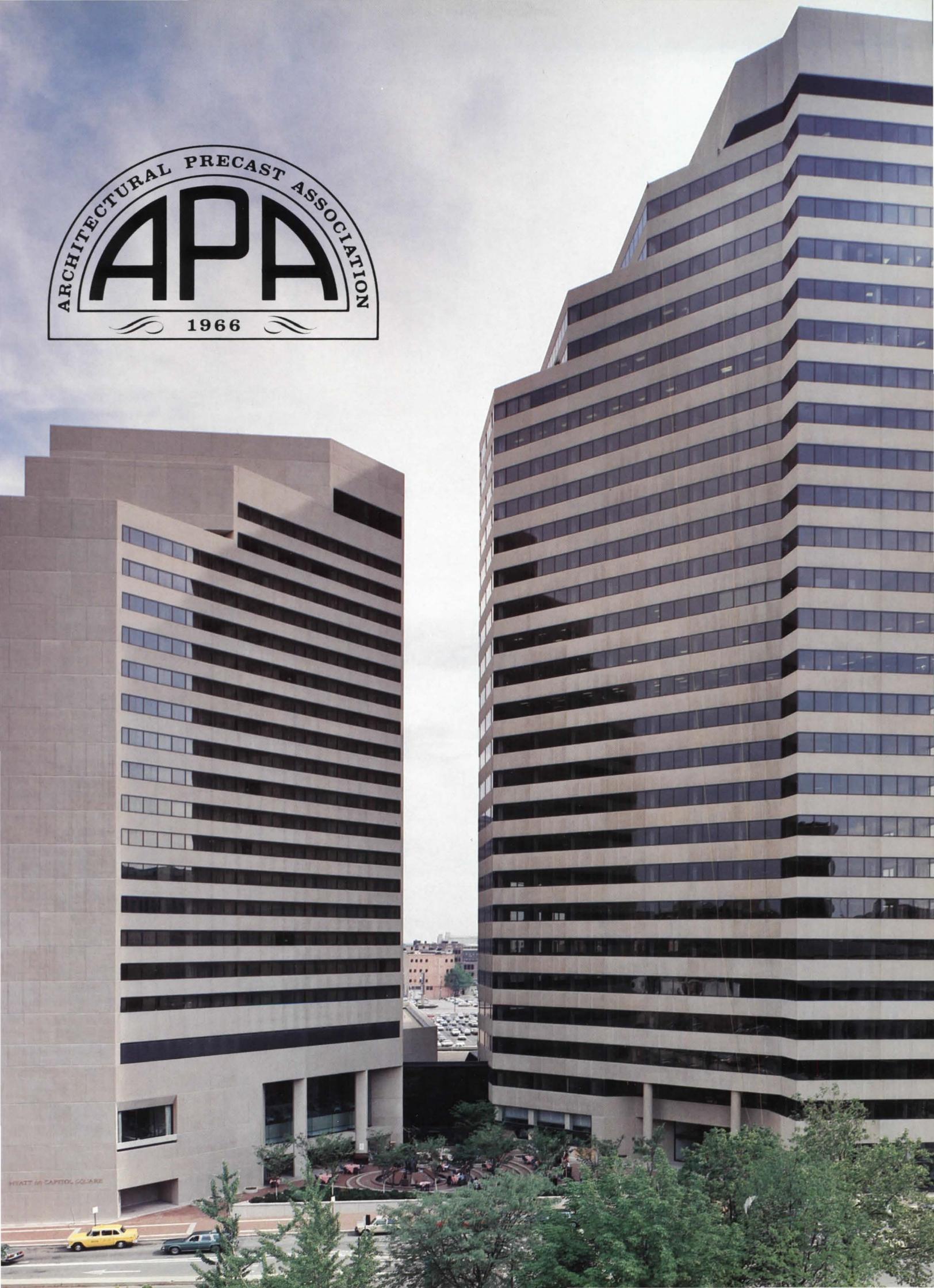
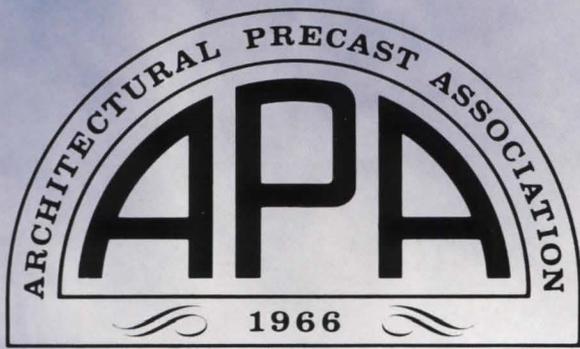
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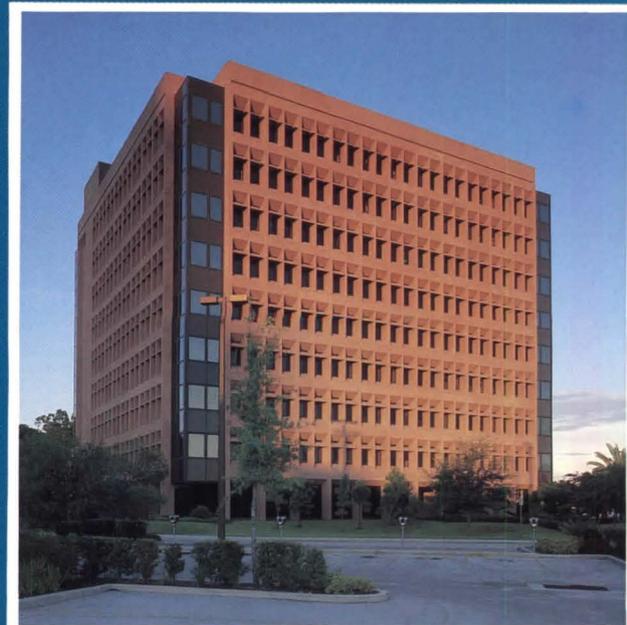
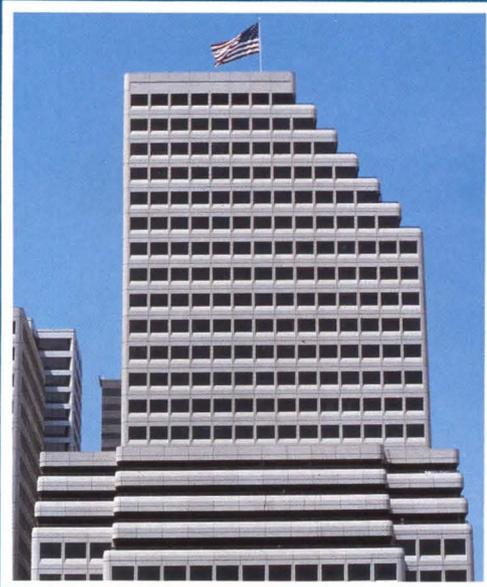


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Note: KBIS runs side-by-side with MULTI-HOUSING WORLD. If you have already registered for MHW, your registration automatically includes admission to KBIS.

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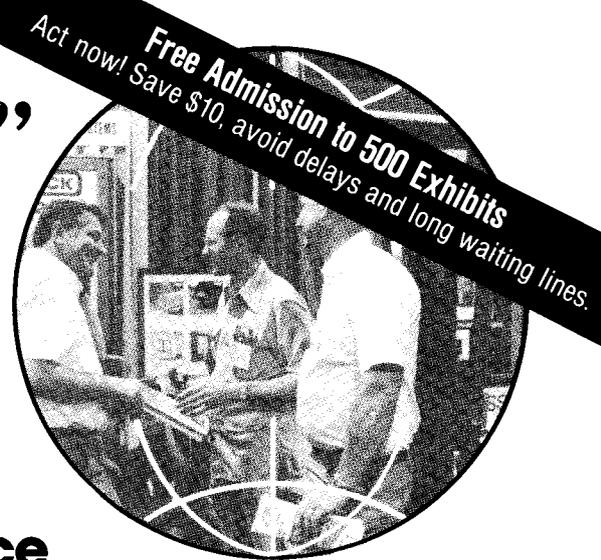
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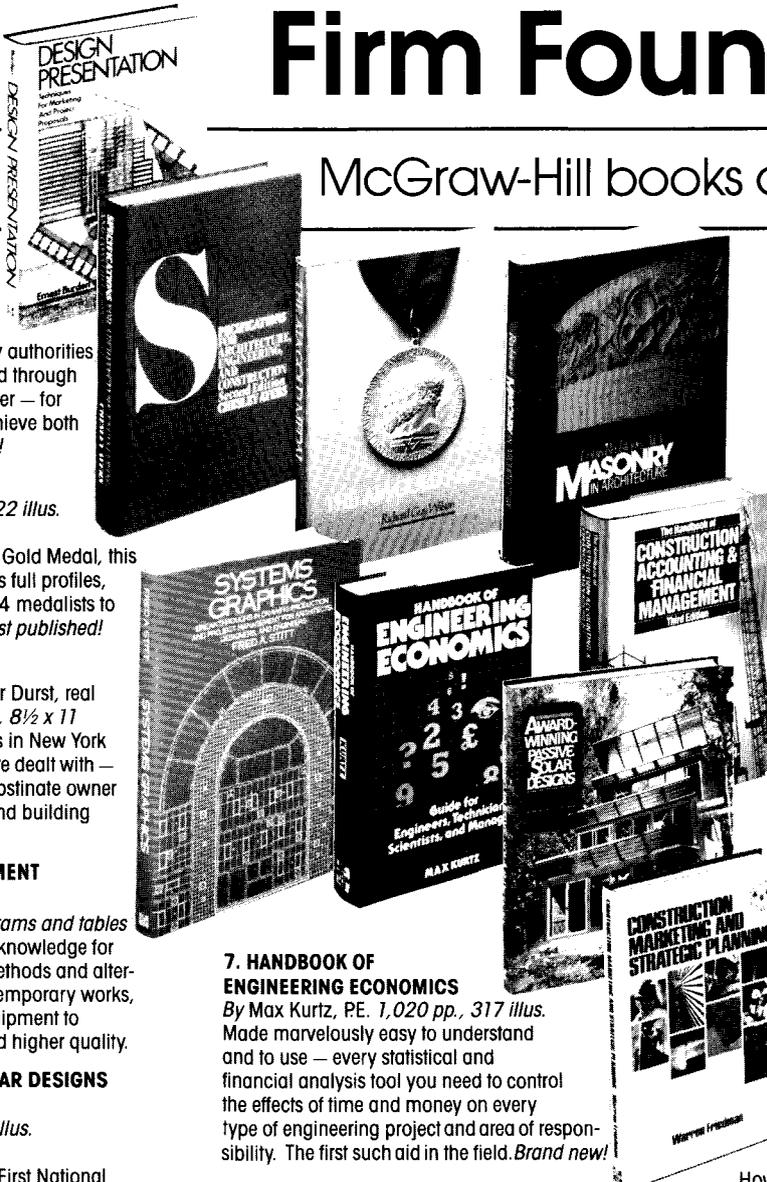
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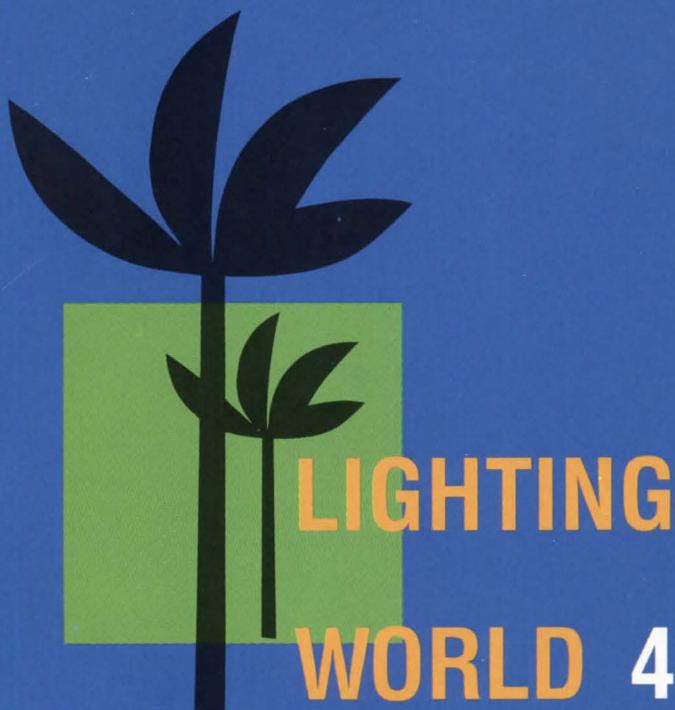
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Despite the efforts of architects to keep the new security issues in balance [*Practice*, 37, 39, 41], security could well become the tail that wags the dog. If early congressional opinions are any guide, visual design may play a decidedly secondary role to security in our government buildings overseas in the process of making them as terrorist-proof as possible.

This became evident at a recent hearing before a House Foreign Affairs subcommittee set up to implement recommendations of the State Department's Inman Advisory Panel on Overseas Security. The panel has recommended a \$4 billion design and construction budget spread over five fiscal years to replace or thoroughly renovate some 126 State Department posts—nearly half of its total foreign inventory—plus another 210 offices operated by the U. S. Information Agency, the Foreign Commercial Service, and the Agency for International Development. Completion of the huge program, to be run by the State Department's Office of Foreign Buildings Operations, with probable help from the private sector, would take seven years.

The private sector has "a crucial role to play in carrying through this program," said chairman Daniel A. Mica. Beyond the actual construction, it should produce a new management system for the FBO which, according to Mica, has "rarely enjoyed support enough to fully carry out its responsibilities."

Richard N. Dertadian, the deputy assistant secretary of state for Foreign Buildings Operations, who heads FBO, explained that his office would not rely on a massive buildup of staff, but rather would rely on private-sector expertise and experience for critical program management, would employ mostly new design, management, and construction methods, and would revamp its internal organization to speed up decisions and coordination within State and with private firms.

The disagreement between architects—who, along with representatives of contractors and consulting engineers, had been invited to present their views—and the committee over the role of design versus security came during a lively question-and-answer period.

Speaking for the American Institute of Architects, Robert F. Messmer, senior vice president of Hellmuth, Obata & Kassabaum and director of Security One (a design-install security firm owned by HOK and two other firms), acknowledged that these demands are in conflict and difficult to reconcile. "Security must be achieved against a variety of threats," Messmer said, "but, at the same time, buildings must be

sensitive to their immediate surroundings and to their host countries. Architects must face the multiple challenges of securing buildings against terrorist attacks while making them work as offices or residences, advancing sound architectural values and principles, and promoting through each project positive diplomatic expressions of the United States' good will.

"Some current security practices deprive city residents and visitors of an architectural experience related to their experience as American citizens," he said. "The White House today looks imprisoned in its ring of concrete. This does not have to be. Architecture and security are not mutually exclusive."

Chairman Mica, who was a member of the original Inman Panel, was skeptical: "I see our efforts as totally security-driven," he said. "Security is not just a factor. Congress would never approve a multibillion dollar program in which security is given only equal weight to esthetics. If I bring a package to the House and say 'pretty,' it's dead."

Messmer agreed that, without doubt, security *is* the driving force, but continued to insist, "We don't have to compromise good design."

Representative Olympia Snowe, the ranking minority member, seconded chairman Mica's stronger emphasis. Alluding to an earlier comment by Messmer, who had argued against a single architectural standard for embassy designs, Snowe said, "If we have different architectural standards, we should have a single standard for security." Added Mica, "I would envision a minimum set of standards for security."

A spokesman for the Associated General Contractors, Frank M. Warren, Jr., made a strong pitch for reserving this program entirely for American contractors. Warren, president of the J. A. Jones Construction Co. of Charlotte, N. C., said the compelling reason for this is security. "Use of American contractors on these jobs during construction is the best way to achieve the necessary security precautions." Such use will make sure that the stringent overall requirements of these projects will be complied with, Warren said.

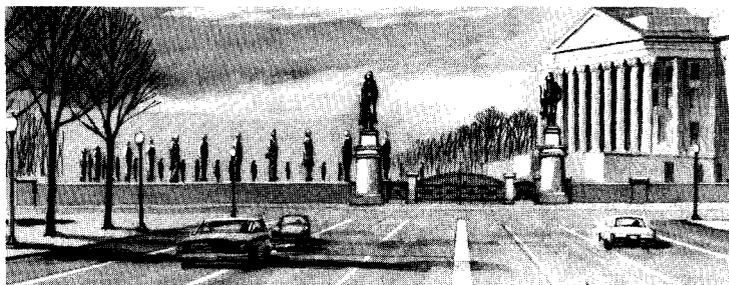
Warren also felt that the work should go to American firms because the funds come entirely from U. S. taxpayers, and "the work should be performed, in the main, exclusively by American contractors." His qualification seemed to recognize the need for using foreign subcontractors under certain conditions.

William J. Birkhofer, testifying on behalf of the American Consulting Engineers Council, endorsed FBO's plan of turning to the private sector for completing this huge program. Birkhofer, director of external affairs for URS engineers in San Mateo, Calif., said: "It is neither necessary nor desirable to organize yet another federal design and construction company to do the work. There is ample capacity in private firms to meet the wide range of technical and managerial requirements inherent in a building program of this magnitude."

Not all Washington news was bad; while rhetoric flew, new White House security was unveiled

Architect Arthur Cotton Moore made public a landscape design for the Treasury Building that would protect the White House (see drawing). It is a semicircular plaza at the south end of the building that will be ringed with presidential statues. These will afford greater security for the east side of the president's residence by substituting for the current ring of concrete barriers that were placed to prevent an explosive-carrying vehicle from gaining enough momentum on Pennsylvania Avenue to breach the White House fence. As an example of what Messmer had tried to impress on the subcommittee, the plaza will also be a formal terminus of the avenue, thereby achieving both esthetic and practical goals.

Moore had submitted the design in April as part of a response to then Treasury Secretary Donald Regan's desire for a plan to renovate the Treasury. Moore says no action has been taken. A Treasury spokesman indicated the department has put the plan on hold because of general budget-cutting. *Peter Hoffmann, World News, Washington, D. C.*



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Summary of Building Construction Costs



	Number of metro areas	Districts Eastern U. S.		
		7/85 to 10/85	10/84 to 10/85	1977* to 10/85
Metro NY-NJ	18	0.97	4.55	1715.44
New England States	33	0.77	3.65	1657.51
Northeastern and North Central States ...	120	0.41	2.04	1646.29
Southeastern States	106	0.49	1.42	1702.38
Average Eastern U. S.	277	0.52	2.16	1673.58



	Number of metro areas	Districts Western U. S.		
		7/85 to 10/85	10/84 to 10/85	1977* to 10/85
Mississippi River and West Central States	122	0.39	1.73	1656.84
Pacific Coast and Rocky Mountain States	106	0.21	1.03	1735.62
Average Western U. S.	228	0.30	1.41	1693.46
United States Average	505	0.42	1.82	1682.56

The last quarterly report on costs (see RECORD, October 1985, page 39) predicted costs staying steady throughout the remainder of 1985. And that is what is happening. The latest figures on costs during the third period show, at most, fractional increases for some building materials and—what would have been a real surprise as recently as a year ago—*decreases* for others. Of course, this seesaw resulting in little or no overall gain is no longer a surprise or too improbable to predict. It has become commonplace.

But the other component of building costs—labor—while also getting modest increases over the past year (or net losses, when inflation is factored in), continued to hold the potential for being much more volatile. Therefore the prediction that labor too would stay in line speaks much more clearly of having a good crystal ball. In particular, labor contracts—found to be averaging 1.4 percent increases on an annual basis in the last report—have now been completed for the year and can be seen to have averaged, in fact, 1.4 percent. The modest size of the average increase was due to a number of last-minute settlements that either held to prior wage structures or reduced them in most locations, even while the Northeast

showed unexpectedly large gains. (The large gains in the Northeast, it may be remembered, are counter to what was happening just three months ago, when this region showed the lowest gains.)

Of those materials showing any variation at all, concrete, concrete block, plywood, and lumber showed fractional increases. This might appear to be because of the continued health of housing construction. But counterbalancing the seesaw, fractional decreases were recorded for gypsum board, asphalt shingles, conduit, and copper pipe—also materials used in the construction of housing.

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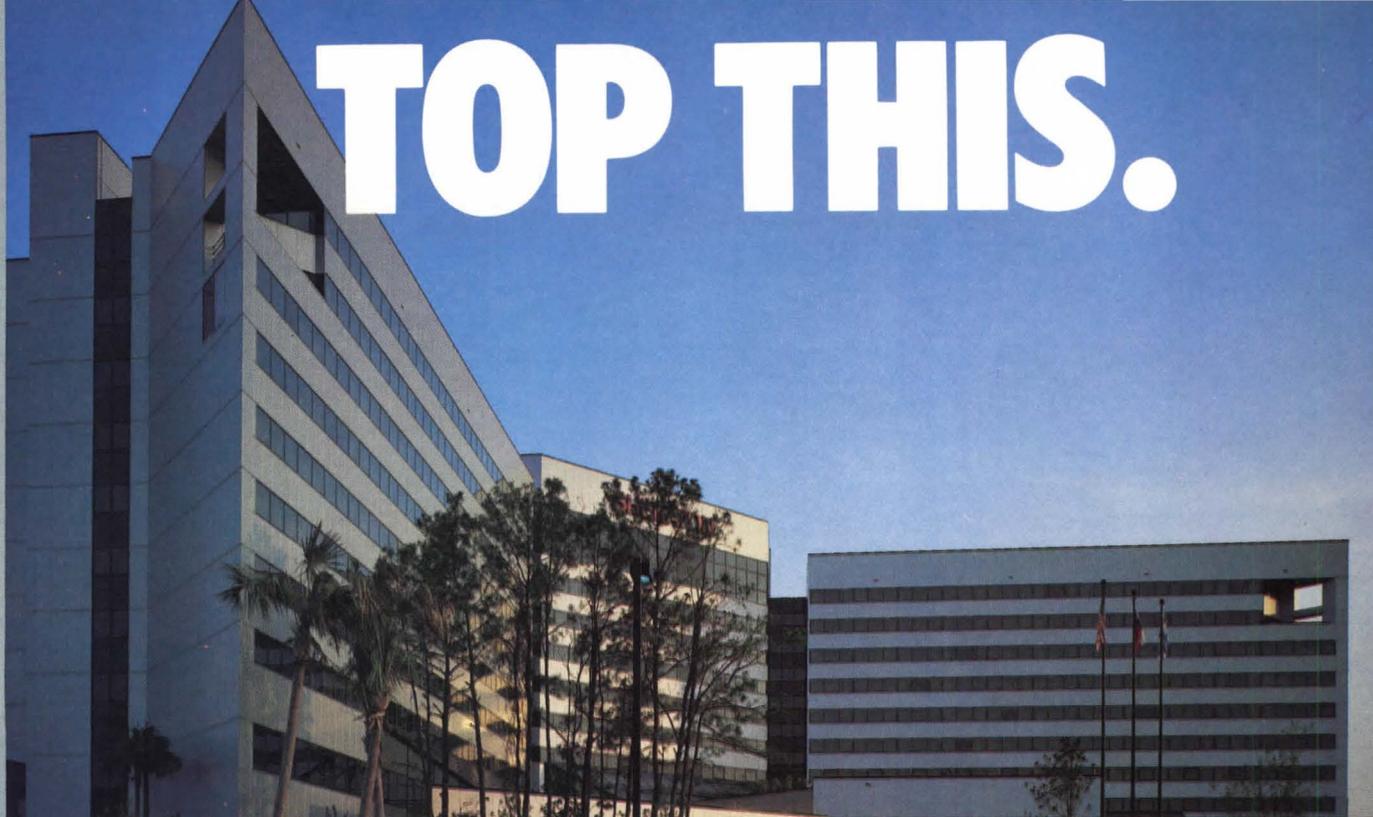
Historical Building Costs Indexes

Average of all Nonresidential Building Types, 21 Cities

Metropolitan area	1977	1978	1979	1980	1981	1982	1983	1984				1985		
								1st	2nd	3rd	4th	1st	2nd	3rd
Atlanta	1171.5	1712.6	1925.6	2098.6	2078.0	2360.6	2456.7	2506.6	2473.0	2483.8	2448.7	2446.2	2506.3	2539.5
Baltimore	1018.4	1107.7	1304.5	1446.5	1544.9	1639.5	1689.7	1673.3	1668.5	1688.5	1703.7	1737.1	1749.9	1750.8
Birmingham	1029.7	1142.4	1329.9	1407.2	1469.9	1468.1	1535.7	1570.6	1567.0	1599.0	1594.7	1592.8	1583.9	1567.5
Boston	1028.4	0998.6	1236.0	1283.7	1432.5	1502.0	1569.9	1607.1	1606.1	1625.8	1646.0	1671.6	1696.9	1714.5
Chicago	1007.7	1032.8	1199.7	1323.6	1344.7	1425.8	1439.5	1459.7	1465.7	1464.6	1476.7	1476.8	1479.5	1499.1
Cincinnati	0848.9	0991.0	1323.9	1385.2	1350.4	1362.6	1430.8	1444.9	1474.9	1478.6	1484.5	1487.7	1492.5	1488.1
Cleveland	1034.4	1040.8	1287.5	1388.2	1459.5	1511.4	1475.9	1451.9	1461.5	1463.1	1464.0	1461.6	1472.8	1481.8
Dallas	1042.4	1130.6	1431.9	1481.9	1750.6	1834.3	1925.9	1962.8	1957.8	1976.0	1958.0	1961.5	1971.5	1964.6
Denver	1038.8	1100.4	1495.6	1487.4	1632.2	1679.1	1800.1	1819.5	1819.5	1820.2	1824.3	1828.7	1824.6	1825.9
Detroit	1018.1	1087.3	1275.3	1447.4	1580.3	1638.0	1672.1	1665.1	1661.6	1687.8	1697.9	1711.9	1712.3	1704.6
Kansas City	1023.5	0951.5	1125.8	1233.2	1323.4	1381.8	1407.5	1418.8	1435.6	1444.2	1447.1	1455.7	1465.1	1471.0
Los Angeles	1022.5	1111.0	1255.3	1387.5	1474.3	1503.3	1523.9	1548.7	1529.8	1546.0	1555.1	1571.0	1584.3	1579.1
Miami	1004.5	1080.9	1330.1	1380.6	1369.1	1392.1	1467.6	1491.1	1505.6	1523.7	1522.2	1529.8	1536.1	1543.7
Minneapolis	1060.2	1196.8	1286.9	1327.7	1442.6	1576.8	1624.6	1635.0	1634.8	1627.7	1640.4	1639.9	1667.3	1680.7
New Orleans	1001.3	1138.8	1291.9	1505.7	1572.7	1616.9	1650.5	1682.4	1689.0	1689.0	1691.4	1739.5	1751.0	1758.8
New York	1005.4	1043.0	1247.1	1319.4	1419.2	1491.8	1672.5	1677.3	1666.6	1700.2	1747.2	1765.1	1789.5	1812.3
Philadelphia	1013.8	1074.2	1487.5	1539.5	1660.7	1769.4	1819.5	1860.5	1893.0	1903.9	1922.1	1965.4	1982.2	1981.3
Pittsburgh	1016.1	1015.0	1227.0	1341.7	1493.2	1479.5	1497.2	1506.7	1565.1	1571.4	1576.1	1580.2	1595.5	1612.5
St. Louis	1039.1	1198.8	1275.9	1320.0	1397.3	1451.2	1524.9	1552.5	1575.7	1603.9	1625.5	1628.2	1644.8	1637.8
San Francisco	1083.2	1326.8	1473.4	1644.8	1776.4	1810.1	1856.8	1855.7	1921.3	1942.8	1935.3	1929.5	1944.8	1958.3
Seattle	1142.5	1137.9	1373.4	1616.8	1814.9	1962.7	1979.0	1934.2	1939.0	1962.3	1948.9	1973.1	1955.3	1963.5

Costs in a given city for a certain period may be compared with costs in another period by dividing one index into the other; if the index for a city for one period (200) divided by the index for a second period (150.0) equals 133%, the costs in the one period are 33% higher than the costs in the other. Also, second period costs are 75% of those in the first period (150.0 divided by 200.0 = 75%) or they are 25% lower in the second period.

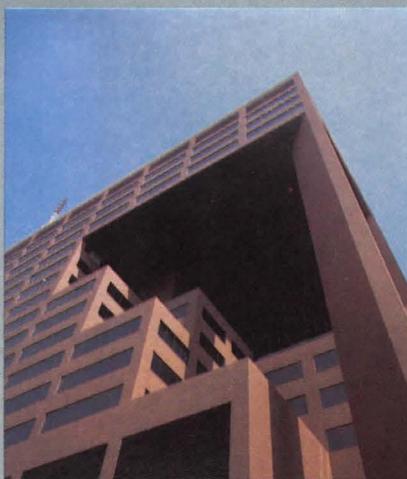
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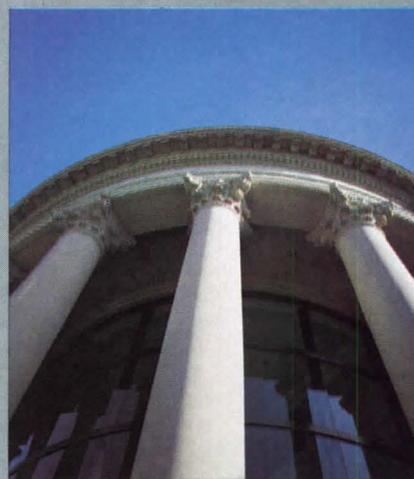
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Practice: Designing for terrorism and other aggressions

How serious is the threat? Can you, as building designers, alleviate it? In this survey, the author explores what the experts think

By Ann Nydele

For many reasons, and in a variety of ways, corporations are increasing budgets for and directing greater attention to the once ho-hum subject of corporate security. And they are using a pervasive approach that is beginning to affect the way their facilities are designed.

Losses to criminal activities now total some \$200 billion annually. Of the 40 crime categories listed by the research organization SRI International in its report, *New Directions in Corporate Security*, roughly ten can be directly affected by the ways that corporate facilities are designed. That is, building design can have a deterrent effect on arson, bank robbery, bombings, burglary, computer crime, homicides, assaults, industrial espionage, pilferage, and industry losses through theft.

Perhaps most devastating to corporate health is industrial espionage. And, most terrifying, because of the violence involved, are bombings and kidnappings. One of the fastest-growing crimes is computer-related crime, which SRI describes as "the copying or alteration of data, sabotage to equipment or programs, espionage, theft for sale to competition, embezzlement, and extortion."

Significantly, crime, itself a growth industry, is responsible for the growing \$16- to \$20-billion security industry. Up to now, corporations have relied mainly on increasingly sophisticated hardware and diligently trained manpower to protect sensitive areas, maintain surveillance, and respond to criminal activity.

But now, it is becoming increasingly clear that the corporate facility itself, the building, parking, siting, landscaping, floor plan, and materials, are all design elements that can assist in containing and limiting crime. The challenge is to provide protection while meeting other objectives—such as an environment that attracts people.

These objectives do not have to be mutually exclusive. For instance, attractive facilities that encourage heavy use contribute to security by the safety-in-numbers theory.

As a result of the political and economic upheavals occurring all over the world, the types and targets of crime are changing. American companies with overseas activities are becoming increasingly at risk, both in the U. S. and abroad. This is evidenced by the growth of something known as "kidnap and ransom insurance," certainly a new

product for American insurers.

According to Risks International, which monitors political violence world-wide, business firms last year became preeminent targets for international terrorists; of more than 3,500 incidents reported, 34 percent were directed against U. S. companies and their employees. In the U. S., kidnappings increased 40 percent during 1981 and, of the 35,000 investigated by the FBI, 5,000 would extort corporate assets.

A major factor in stepped-up corporate security is the steadily diminishing amount of protection available from the public sector. SRI reports, for example, that law enforcement budgets have shrunk in real terms, and that the number of personnel has declined: 44 percent of law enforcement agencies report that their numbers of sworn personnel are the same as or fewer than five years ago. Public law enforcement agencies themselves are beginning to contract with private security firms for some less sensitive activities, such as parking enforcement.

New specifications for U. S. embassies mean guideposts for architects on all types of projects

Members of the building design disciplines are currently collaborating with the federal government in creating new specifications for the design and construction of U. S. embassies abroad under the auspices of the U. S. State Department. This Committee on Research for Security of Future U. S. Embassy Buildings has experts on site selection, building design, security methods, costs and materials.

"The net result," says committee chairman David B. Dibner, a senior vice president of Bernard Johnson Inc. and a former assistant commissioner for design and construction in the General Services Administration, "will be rewritten criteria for embassy design."

The study will be completed in early 1986. In the future, it is expected, with the exception of classified material, to enter the body of information available to all design professionals, as well as architects working on embassies.

And it will be the first detailed map for architects seeking to provide for the security of all types of clients. It will cover such areas as site selection, materials selection, road access, window types and placement, and all of the features of a building and its site that are susceptible to security breaches.

"It's a difficult problem," says Dibner, "in that we're dealing with all sorts of threats from sit-ins to bombings—and therefore, with people who are illogical."

Here is how the guideposts developed for government will help private industry as well

Despite the specialized nature of the embassy situation, Dibner finds in his private practice that many of his clients have the same potential problems: "Everyone wants to protect what they have inside from intruders from outside." For example, he finds that his clients are very worried about electronic theft or the type of industrial espionage whereby a company loses secrets through its computers. "What we're learning through this embassy committee is the extent of sophistication in methods of electronic interference. Not only can they steal, but they can alter."

Architects can design buildings to lessen that kind of theft. For example, a surface below the exterior finish can be one of several materials that block the exfiltration of the electromagnetic waves. Windows too can be protected to prevent leakage. "When you're talking about intelligent buildings," he remarks, "you also have to talk about buildings in which the intelligence can be preserved."

Other considerations for architects are protection against physical intrusion by limiting access, guarding perimeters, and selecting materials that are resistant to being cut through (drywall can be cut through with a knife). Even materials that only slow such penetration allow time for guards to be alerted and react.

"All of the techniques of the security industry—security posts, electronic systems, and cipher lock systems, are going to become part of architects' vocabulary," says Dibner. Much of this technology was developed by the military. But it is rapidly becoming part of the civilian arsenal. "Security experts are on the architect's team now."

"One of the most difficult issues will be image," he adds. "In effect, because we want to protect buildings, their occupants, and their functions, this can mean higher, thicker walls and smaller windows. How do you, at the same time, project the image of either an embassy or a corporate headquarters as being open and receptive to people? It's a difficult contradiction that architects face."

Site selection and planning will become important issues along with building design

Christopher Degenhardt is president of EDAW, Inc., a firm of environmental planners, urban designers, and landscape architects in San Francisco that has worked for the U. S. government and firms abroad, as well as overseas clients in the Middle East and Southeast

Continued

Miss Nydele is a communications specialist for design professionals, an author, and a freelance writer contributing to design and facilities-management publications. She is based in New York City.

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As a result of upheavals occurring all over the world, the types and targets of crime are changing

Asia. "In all of these commissions," he says, "we were involved in security issues."

As chairman of the embassy research committee's site selection group, he is concerned with the security of open spaces around the buildings, "which," he says, "is turning out to be a major issue in corporate commissions as well." Also, security depends on the way a building is situated on its site. "The greater the set-back of a building," says Degenhardt, "the more opportunity you have to protect it. Of course, you have to pick sites on which you can do that."

"If you have an urban site on which a building must take up a whole block, you're not going to build an outside ring of walls around it. Then, the real issues become the compatibility of the adjacent uses and the relationship to existing streets and other circulation routes. This parallels the well-known fact that house theft increases when the house is close to a major highway, as opposed to a cul-de-sac, because of the ease of escape on the highway."

In cities, then, if someone is trying to throw a bomb from a speeding vehicle, that's when the type of adjacent road is pertinent. This goes for a sniper as well. The worst situation, of course, is to have an elevated freeway nearby.

"In the suburbs, a set-back is valuable," says Degenhardt, "to the extent that you're willing to police the perimeter. The adjacent topography tends to take over some of the characteristics of the adjacent buildings in an urban setting. If you're going to build next to a cliff, it's like building next to a high-rise."

He points out that it is necessary to make access to the site difficult: A circuitous entry road is a real asset, because vehicles can't go directly to the building. This is for a couple of possible situations: "For instance, if you have a bomber in a truck, giving him a straight shot at a building is fatal. His success depends on, among other things, speed at impact. He has to break through any barriers, and you can reduce his momentum to do that with a circuitous route."

"Similarly, a circuitous route gives reaction time to monitor that arrival. If a bomb goes off while the bomber is stopped at a gate, it means less damage to the building than if the bomb exploded against the foundation. Thus, we are talking about a combination of three things: physical layout, guarding the perimeter, and a system for surveillance."

As threats go, bomb attacks and sniper fire are really very different, Degenhardt points out, but protection from both may be

obtained from the same design approaches; the ideal protection against both is a site away from elevated locations. "Sniper fire with the highest type of technology," says Degenhardt, "may now reach a range of 3,000 feet. But if you use protective glass and smaller fenestration, you can achieve protection against that sniper fire and against blast as well."

Obviously, he adds, if the company has total control of its building, as opposed to being in a mixed-use or tenant building, it is much easier to secure. "There may be problems with this in terms of other goals," he says. "But if your priority goal is security, the building that is totally under your control is a lot more manageable. You can contain the number of entrances, and control the access of visitors through a security clearance system."

There are no simple solutions to the problem, he points out. For example, it is axiomatic, even in residential landscaping, that plantings close to buildings should be avoided so that visibility is clear. However, there have been cases in which plantings have interrupted an air missile so that its explosion occurred in the trees, rather than against the building.

"One of the most difficult parts of this whole exercise," he says, "is defining the nature of the threat. It is inherent in terrorists' activity, for example, that they don't follow a predetermined pattern. Yet, it is axiomatic in any design that you have to plan for the unexpected."

One aspect of policing the site that everyone understands is the role of lighting. A low-level constant lighting is a lot more useful than a mixture of high and low intensity. Unevenness causes shadows; thus the key is not so much intensity as evenness.

Parking facilities have received much criticism as generally unsafe areas. Degenhardt says there are two philosophies. One is that you try to keep parking at some distance from the building and outside its perimeter, because "you can't police all the vehicles going in." The other is that you put it inside the perimeter for the protection of the users. But parking garages under buildings are bad; a car with a time bomb can be driven in and left, and the driver can walk out. All of these considerations must be balanced in making the choice of where to put the parking.

Degenhardt is concerned with security but not obsessed with it. "It's a consideration for architects, but they have to be careful about treating it as a singular concern. In any building or site design or site selection, you are dealing with a number of objectives that have to

be balanced. The nature of the security threat is a real one, but I know that it is not, for most clients, an overriding issue. There is a lot of criticism today of buildings that have been over-designed from that standpoint.

"There is no point in building a building that won't function for more than one owner because the security issue is over emphasized. The building may be terribly secure, but it may not work. On the other hand, designing for security is like any other design process. It's better to face the issue now than to gerrymander a solution afterwards."

In assessing security requirements, there is one primary imperative: define the threat

One expert on this is Brian Jenkins, director of the Rand Corporation's research programs on "sub-national conflict"—a category that includes terrorism. "While the primary security concern is still to protect buildings and people from ordinary criminal activity," he says, "the number of terrorist incidents worldwide has continued to grow at about 12 to 15 percent a year."

The FBI has had a high success rate so far in preventing terrorist activity in the U. S., having foiled terrorist plots this year at the rate of 17 out of 19. It does not consider terrorism to be a major problem here—so far. Still, experts like Jenkins do feel that the rise in international attacks against U. S. businesses and businesspeople does pose a potential threat here, and that the threat must be factored into corporations' security planning.

"Business abroad," says Jenkins, "is a popular target for terrorism for a variety of reasons." In some cases, foreign corporations in a third-world country are seen as exploitative of the local economy. Japanese and German corporations have the same problems there as those of the U. S." In some cases, he points out, terrorism is purely ideological. "And, of course, terrorists go after corporations for the same reason that Willy Sutton went after banks—because that's where the money is. Indeed, financing a revolutionary or political movement by means of kidnapping for ransom or extortion was one of the principal terrorist innovations of the 1970's."

"Fortunately, the increase in terrorist activity worldwide has not been matched by an increase in terrorist activity in the U. S. There's a handful of bombings every year that are politically motivated; rarely do they involve fatalities. For the most part, they tend to be symbolic. However, many are concerned that the immunity that we have had may not last; as terrorism increases

around the world, we could face attacks within this country in the future, perhaps directed from abroad. Corporate presidents are looking at those concrete barriers around the White House, the State Department, and the Pentagon, and are beginning to ask themselves what they ought to do."

In defining the threat, a lot depends on the nature of the corporation and its activities. In such operations as banks and stores, there is a concern about criminals from outside. A corporation involved with defense contracts or in high-tech industries will be concerned primarily about industrial espionage from foreign manufacturers or governments going after U. S. technology. A pharmaceutical company may be concerned about the integrity of its production line and, recently, about protection from contamination by extortionists. Other companies, those that are heavily invested in third-world countries, may be more concerned about terrorist violence.

The concerns can vary, says Jenkins, according to the company's location within the U. S. Terrorist attacks are more likely to happen in major cities with large, ethnically-diverse populations, in addition to concentrations of large corporate headquarters with overseas investments. While much of the Rand Corporation's research is classified, inasmuch as its clients are government agencies, much is also available to the public.

Here is what one large corporation is doing; its techniques are not atypical

Today, major corporations are employing former FBI and Secret Service personnel to set up and manage highly complex security organizations. As Louis B. Sims, Director of Corporate Security for the Pennzoil Company in Houston explains it, his department is concerned with the entire spectrum of crime.

Among Sims's staff are auditors, computer experts, and systems engineers, as well as security personnel. His operation is also responsible for evacuation in case of fire or bomb threats. Employee movements are subject to his control. So is the security of sensitive areas. He uses electronic access devices, sensors, and visual detection equipment.

But Sims is also concerned with the architecture of buildings from the standpoint of security. If, for example, a common area is located above a computer room, he wants to know if the floor is penetrable. The location of sensitive areas in the floor plan, he notes, also directly affects potential penetration. He

Continued



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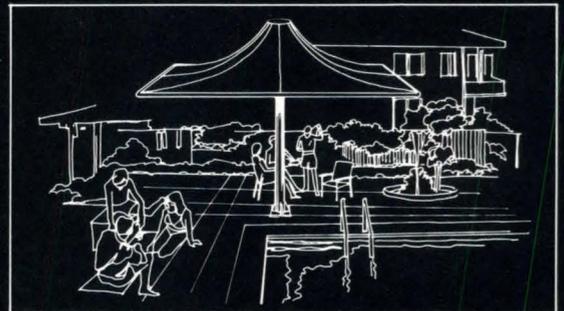
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The challenge is to provide protection while meeting other objectives—such as an environment that attracts people

reviews all such considerations so that he can bring his concerns to the table before the planning of a building ever begins. "The emphasis is on prevention," he says. Thus, the security executive must, to a considerable extent, be able to anticipate the dangers and plan to prevent them. Increasingly, architects become his partners.

A second corporation places more reliance on design that helps employees police activities

The Texas Eastern Corporation, a broad-based energy company, considers security a top priority in its facilities planning. "Several years ago, particularly during the oil embargo, firms like ours were frequent targets of bomb threats," says office services manager George Graves. "Oil companies were blamed for oil shortages and this seemed to trigger irrational reactions."

Texas Eastern relies, in part, on a card access system that is linked with camera surveillance to admit personnel. More important, there are open work areas, interspersed with the closed. "An important part of our security system," says Graves, "is employee awareness: Employees are expected to monitor who has legitimate reasons for being in their work areas. We also rely on floor captains who are trained to deal with emergencies. This human factor," says Graves, "is key to a safe environment."

To the architect, the idea of security planning, as part of building design, is not exactly new

In hospitals, for example, architects have had to take into account the separation of clean and soiled materials and supplies. And various kinds of traffic have to be separated, such as visitors, patients, and outside services.

"There is a similarity in security," says Stuart L. Knoop, president of Oudens + Knoop Architects and chairman of the Embassy Committee's subcommittee on building materials and planning criteria. "In security planning for other types of facilities, you accept the restraints which have to do with traffic, access of outsiders to the building, and access of insiders to certain areas. And your planning for security has to begin very early, just as it does for any other special requirement, such as asepsis in a hospital."

In the earliest pre-planning stages, Knoop asks his clients what their security requirements are. Knoop believes that for large organizations, such as government agencies, large corporations, and institutions, security officers, like Sims, should be present at many of these early sessions. "These

security officers," Knoop says, "should be able to articulate the security threat, whether it's theft, burglary, terrorism, industrial espionage, or whatever."

Knoop reminds us that there are many different types of security problems for many different building types: Nursing homes, for example, have a problem with older people who often wander, end up in the street, forget where they belong, and are victimized. "That's a security problem," he states, "and you deal with it by a plan that controls access: Residents cannot go out without being seen and escorted. At the same time, outsiders cannot come in and victimize residents in the building; visitors are controlled."

"In banks, the interface between teller and customer is where most of the security has to occur. And other forms of security—double keys, double signatures, and so on—are familiar to people seeking access to banks' vaults."

Knoop believes, like the others, that the lessons they are learning from this experience with embassies will be applicable to other building types. Most directly: "Many industries are also government contractors, which requires them to maintain segregated areas that are planning problems," he points out. "Also like embassies, multi-national corporations have the special problem of protecting target people from kidnapping or assassination."

"You can protect such people when they're in the facility when you have control of design," he says. "You place entrances that potential targets would use so that they're not exposed to snipers or bombers—so that when they leave their vehicles, there is an overhang or canopy and the entrance is oriented away from the most likely direction of threat. It is much better to locate their offices facing an inner courtyard instead of on a perimeter wall."

"When terrorists escalated their attacks to include explosive devices, we realized that a major danger was injury or death from flying glass. It is possible to design windows in such a way that flying glass is harmlessly dissipated by, for example, turning windows at right angles and placing them in a niche."

"Also you can limit the amount of damage if a bomb does go off by staggering door openings, so that material can't go flying through multiple offices. You wouldn't, for instance, line up doors and windows directly opposite each other," Knoop points out.

"Most architects should be aware that computer security is going to be part of programs for more and more buildings—especially as

electronic data storage equipment and word processors proliferate. Nearly all architects are going to be taxed with knowing at least something about what to do and where to go to get information—whom to turn to for assistance."

There is a growing cadre of specialists from the private sector that architects can turn to. Some government agencies are looking into the development of criteria for that expertise, so that people may be qualified by some standard. The American Society for Industrial Security in Washington, D. C. already has people qualified to a standard of its own.

Knoop recalls the historic role of architects in security: "All you have to do is look at some of the classic buildings and see the proliferation of window grilles, portcullises, and other defensive elements. Architects have been dealing with security for centuries. Now that the threat has become more sophisticated, we have to become more sophisticated. It is part of our professional charge to deal with it."

You have to weigh values when requirements for amenity, crime, and, for instance, fire all conflict
Dr. Georgette Bennett, who is associated with The Center for Policy Research, has spent a lot of time thinking about ways to make buildings and spaces safe. She is a consultant on criminal justice to government agencies, lawyers, academics, law enforcement groups, and others.

Working with another group, the Insurance Information Institute, she has designed a defensible-space program for crime prevention that has been implemented in five cities, for both residential and commercial use. To do this, she surveyed community groups to assess vulnerable areas within cities. From this, she produced a model building code for defensible space—that in which the occupants feel secure.

In producing the code, Bennett found that there are conflicts between what makes a building crime-proof and what makes it terrorist-proof. For example, the placement of windows at an angle to minimize blast works against crime prevention, which requires surveillance from inside.

In crime prevention, companies can use employees' sense of territoriality—as is done at Texas Eastern—to get them to protect their work areas. Territoriality, says Bennett, is the first basic tenet of crime prevention through environmental design.

In interior spaces, Bennett points out, the occupants' territory should be defined. One of the biggest crime hazards within an office is larceny—stealing handbags, coats,

equipment, and money. Violent crime is not an issue here. In this instance, you want people to ask: "Who is this person and why are they here?" If this does not happen, what you have is anonymous space.

"One of the things you want to do is design small, rather than big. You want to create intimate work spaces that are occupied by only a few people; you don't want to create large open barns." Thus, Bennett believes that big areas of open-space design enhance anonymity, work against personal responsibility, and promote crime.

What she favors is office landscape design with definite boundaries created by plantings, changes in color, and texture. "Use the whole range of symbolic and real barriers, with changes in height of partitions, and transparent windows in partitions and doors," Bennett explains. "Any kind of solid barrier such as a wall, should be no taller than three feet to maximize surveillance. If you use taller barriers, they should be at least 50-percent transparent, so that you always have clear vision."

"Heavy planting may soften spaces, but it creates concealment and, therefore, a conflict between amenity and crime safety." In evaluating the safety of a space, Bennett emphasizes your instinct. "If you feel a space is unsafe it probably is," she says. Public areas, such as plazas, can be quite different: some are used and some are not. Some that are quite attractive are virtually deserted because they offer no sense of safety, and little surveillance in shadowy and concealed places. You should have a sense of being integrated into the space's activity, even though you want to be apart.

Fire stairs are one of the biggest worries in a high-rise office building from the standpoint of crime as well as fire safety. They must be open to surveillance, but this counters fire-safety practices. One solution is vision panels of unbreakable glass in fire doors. When these stairs are used for regular access, another solution is mirrors of an unbreakable, vandal-proof material, such as polished steel, mounted high around every bend. Microphones can allow security people to hear what's going on.

Violent crime in office buildings often occurs in stairwells. But the criminal has to escape. So, the escape route should go through a common area where the criminal will be seen—say through the lobby. Where the stairs are not used for access, as they usually are not in office buildings, doors opening back onto upper floors should be locked. The exit should not go out to a back parking lot or loading area. *Continued*

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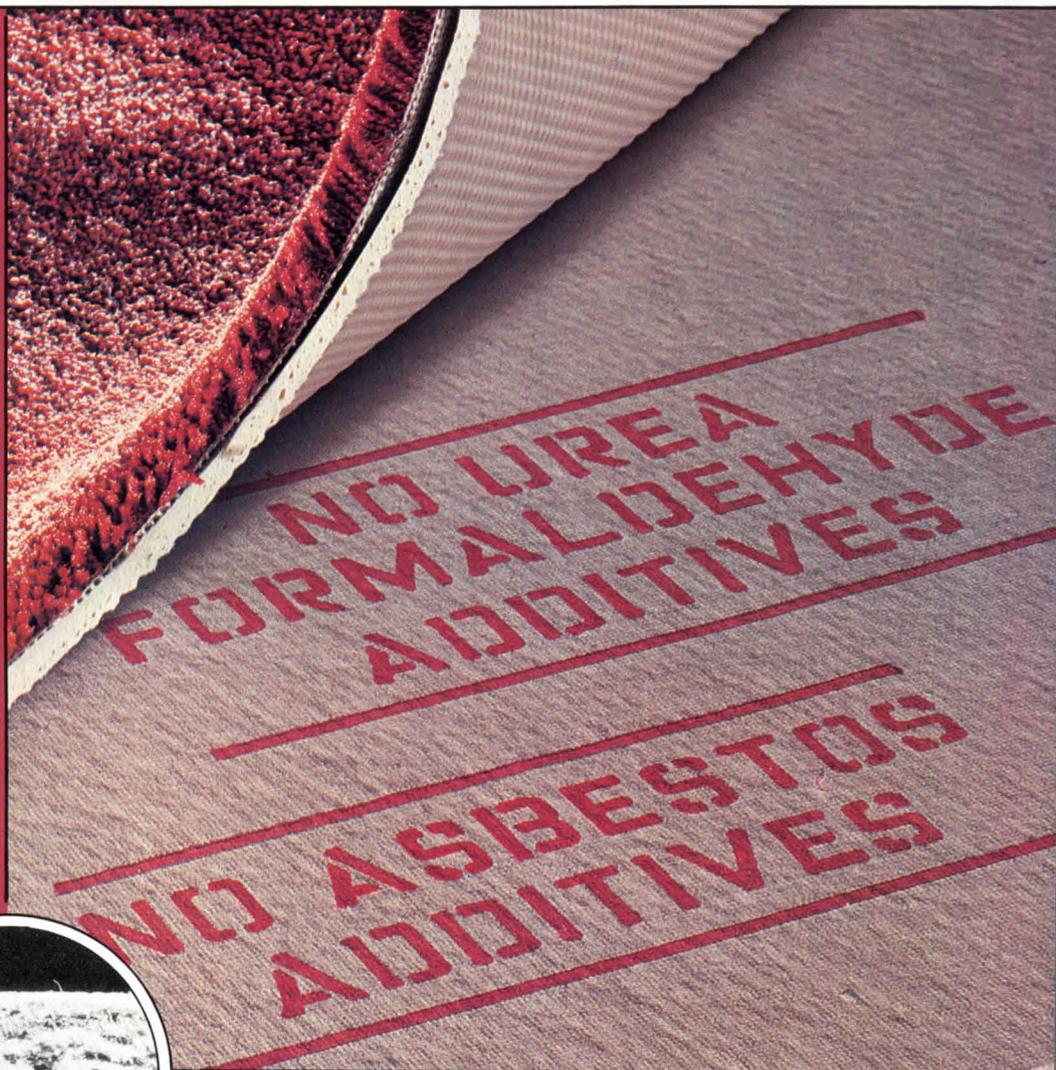
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If there has not been proper planning, there are not hardware and guards enough to truly protect a building

Construction materials now being tested will be another security consideration for architects

One subject now being researched by the Embassy Committee is how basic building materials resist terrorist attacks. This subject is also being explored at the IIT Research Institute, where Seymour A. Bortz, a member of the committee's materials research program, is involved in the testing. Bortz has already reached some conclusions: "Basically," he says, "you want to minimize the amount of glass used in a structure, and assure that the design of the structure will withstand the blast pressures it might be subjected to; thus, you might want to use reinforced concrete which can best withstand them." While there is research going on in the development of new materials and applications, such as windows that have blast and ballistic resistance, most of the studies involve conventional materials.

Bortz points out that the State Department is not interested in building citadels or bomb shelters. "We have to meet the requirements for what the State Department wants to portray to the world as our open society while, at the same time, improving protection. People are talking about such benign methods as seismic design to, at least, strengthen structures against explosives' pressures and vibrations."

Bortz, who is a civil engineer, says that the best planning method so far is compartmentalized areas that contain damage, and windows that do not open directly into spaces. Also, if you have walls built of appropriately strong materials separating work areas, you are able to protect against small-arms fire. Ordinary open partitions don't offer any protection at all but, even in open-plan design, it is possible to construct solid-steel partitions and have roll-down metal doors that offer protection against small-arms fire, as well as explosives.

How much will all of this cost? Bortz estimates that the identified measures so far, including hardware, will add 10 to 15 percent to the cost of a building.

The firm that doesn't wait for clients to figure out that they may have a security problem is ahead

While research on architectural solutions to security problems is still in its infancy, some architectural firms, experienced with high-risk businesses such as energy, banking, and high-tech, have developed their own criteria for clients. For instance, CRS Sirrine presents clients with a check list of security issues it has developed for its facilities management program.

According to senior vice president Edward J. Agostini, this check list is part of initial discussions with clients, in which issues that possibly need solutions are aired.

The check list covers:

- The integration of security into building management systems;
- Such planning criteria as site selection, and office locations and design;
- Proximity and accessibility to police, fire, and emergency medical services;
- Security and lighting of approach routes;
- Security, visibility, and lighting of building entrances;
- The control of access to client facilities in shared entrance lobbies;
- Parking security;
- The superior security of high floors;
- The risks that certain other types of tenants produce;
- The risks of shared washrooms;
- Such access considerations as re-entry from stairs;
- The security of computer facilities, mail rooms, and x-ray equipment.

One consultant translates experience gained in low-income housing to the corporate sector

Oscar Newman is an architect, city planner, and the author of two books, *Defensible Space* and *Community of Interest*, recognized resources in the design of publicly assisted housing projects. Today, with little such housing being built, Newman, located in Great Neck, N. Y., devotes a good percentage of his time to working for major U. S. corporations. He is also a consultant to the insurance industry and to government on the physical safety of tax-free zones that would stimulate private investment in the renewal of deprived urban areas.

He repeats a frequent theme: "Depending on the nature of a facility," he says, "whether offices, manufacturing space, research laboratories, or warehouse, different security provisions will be required—especially in site selection. If the facility is for a staff with few visitors, the company can afford a higher-risk site within the desired geographic area—one that is, perhaps, more convenient to transportation. But, if the facility is to be open to the public as well as serve an internal function with stringent security requirements, a poor location is either inviting trouble or will produce perennially high manpower costs to guard it."

Newman is often retained by corporations to do preliminary studies before an architect is brought in. But if the architect is already on board, Newman insists on working through him. "The

architect is the person in charge," says Newman. "My task is to make him aware of the range of design options available and the security consequences of each option. The final decision is his. I don't want to find myself between architect and client; little positive comes of that."

He comments on the differing levels of security for differing activities: Research and development facilities require a high level of security but, luckily, have few public visitors. The staff expects tight security arrangements and puts up with them well—especially since researchers, who are intent on what they are doing, are among the least aware of what is going on around them. On the other hand, a public-oriented facility, like product sales, for instance, has a high ratio of staff to outsiders present at any one time. The staff watches visitors while it serves them. The public does not have to be subjected to stringent measures.

Obviously, multi-use buildings intended to serve both public and staff present a more complex security problem. "The solution here," says Newman, "is to provide a hierarchy of increasing security through multiple zones. The most readily accessible and least secured zone will be for contact with the general public. The second zone will probably be limited to deliveries and pick-ups and would be slightly more secure. The third would be office space and should require a system which allows identification, however informal. The fourth would be the most secure. This zone system should be apparent in the layout of the grounds and in the general access arteries."

Thus, in a twin tower building, for example, the first tower may be for in-house staff and tightly secured, and the second tower for the general public and comparatively open. In a single-tower building, the two zone system can be created by providing two separate lobbies; a ground-floor lobby for the public and a mezzanine lobby for the staff, made accessible by escalator. The single tower above would be equally divided into two zones, each served by separate sets of elevators accessible from their own lobbies.

"Parking is its own problem and again should be zoned. But in all cases, there should be no direct access from parking to office space, except through a clearance area." Newman emphasizes that the effectiveness of a security system depends on how early he can be brought in. If he is brought in after the design of the building is fixed, and security then turns out to be an important consideration (although the architect may never have been

told), the security will have to be superimposed at the expense of design or the design done over.

If security considerations are not encompassed within the design, the client will have to pay a high price after the fact, either in unsightly barriers and exposed security hardware, in inconvenient restrictions to free movement, or in high operating costs. While some clients may initiate the discussion of security, Newman, like the other architects here, advises the architect to take the initiative.

"Most often," he says, "the client assumes that the architect has given due consideration to security. He is very unpleasantly surprised if somewhere into the finalization of contract documents, he finds out that security is only just being considered—along with door and window hardware.

"If security is an important factor," Newman states, "it can dictate the layout of the site and the form of the building—if only to make the security provisions inconspicuous and to minimize inconvenience. Obviously, the earlier architects understand security needs, the better they can accommodate those needs in initial designs.

"And what the architect has to understand is that if there has been no provision for hierarchical zoning, there are not hardware and guards enough to truly protect a building. It is a given that the criminal engaged in the breaching of office and industrial security knows more about the latest gadgets and how to defeat them than the average architect."

And so the list of what architects must know has once again grown to encompass one more field

Architects today must feel that they are required to know and do a great many things—perhaps too many. They must be able to design buildings that are beautiful, that meet goals for a desired image, that, if commercial or institutional, serve as working tools for employees, that will last a long time, be at once uniquely adapted to clients' needs and versatile enough to be salable, and that will be safe. Yet, as Georgette Bennett says, "the design of physical space is the arena within which all human behavior takes place." As society changes—and it is changing more rapidly today than at any time in human history—this "arena" has to change with it; be as flexible as water yet as firm as rock.

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Circle 36 on inquiry card

Finance:

A weaker dollar should mean a stronger economy

The end of the consumer spending spree should be more than offset by the sale of more U. S. vs. foreign goods both here and abroad

By Phillip E. Kidd

After a year-long spending spree, consumers will change their ways in 1986. Consumer spending has been a major force in keeping the economy expanding because it has more than offset poor results in agriculture, industry, and exports.

But consumers no longer have the financial resources to maintain their 1985 buying pace. Since their incomes did not rise as fast as their spending last year, consumers financed their large purchases with substantial amounts of credit and reductions in savings—further weakening their financial positions. More of their income will now go to repay debt and rebuild savings. However, what is spent, because of the declining value of the dollar, is likely to go for domestic goods and services.

Since its postwar lows in 1979, the dollar has gained in value against other currencies, reaching its peak in March of 1985. Throughout the current expansion, the Administration has often pointed to the lofty position of the dollar as proof of our economy's soundness. Unfortunately, American agriculture, basic manufacturing, and exports have never fully participated in this recovery because an exceptionally hard dollar has encouraged both domestic and foreign buyers to substitute cheaper foreign products for U. S. produced output.

Now conditions and attitudes are changing. Since the spring of 1985, the Federal Reserve has been using monetary policy to stimulate interest-sensitive industries—housing and automobiles—and to reduce the dollar's value. More recently, Administration policies have shifted as the trade deficit continued to climb to record levels. At Washington's initiative, the Group of Five—U. S., France, Germany, Great Britain, and Japan—in late September began a coordinated effort to lower the dollar's value. As part of this program, the other nations are moving (although often hesitantly) to boost growth in their economies. As a result, the dollar has weakened about 25 percent against these currencies since March 1985.

The benefits to U.S. producers from these moves are only slowly appearing, but they are expected to become more important in coming months. In December, Japanese manufacturers raised prices on goods shipped to the U. S. to offset the negative impact of a falling dollar on their profit margins. As such increases spread to other imports, American consumers will

Mr. Kidd is a prominent economic consultant and former director of Economics Research of the McGraw-Hill Information Systems Company.

gradually discover that price incentives for buying foreign goods are eroding. At the same time, the improving quality of domestic manufacturing—something domestic industry has been investing in for several years—will begin winning back American customers. Consequently, more of the consumer's precious spending will be directed at American products. With demand picking up,

domestic manufacturers will raise production and increase employment. With workers returning to relatively high-paying industrial jobs, consumers' income and expenditures will receive a much needed boost, adding more momentum to demand for domestic manufactured products.

Meanwhile, the softening of the dollar and better quality will enhance the attractiveness of

American goods to foreigners. This will be occurring at the time when foreign economies will be accelerating, which will generate more consumer purchases. With the markets of the developed nations becoming more accessible, American agriculture and manufacturing concerns will enlarge production for export. That will cause further employment and income gains.

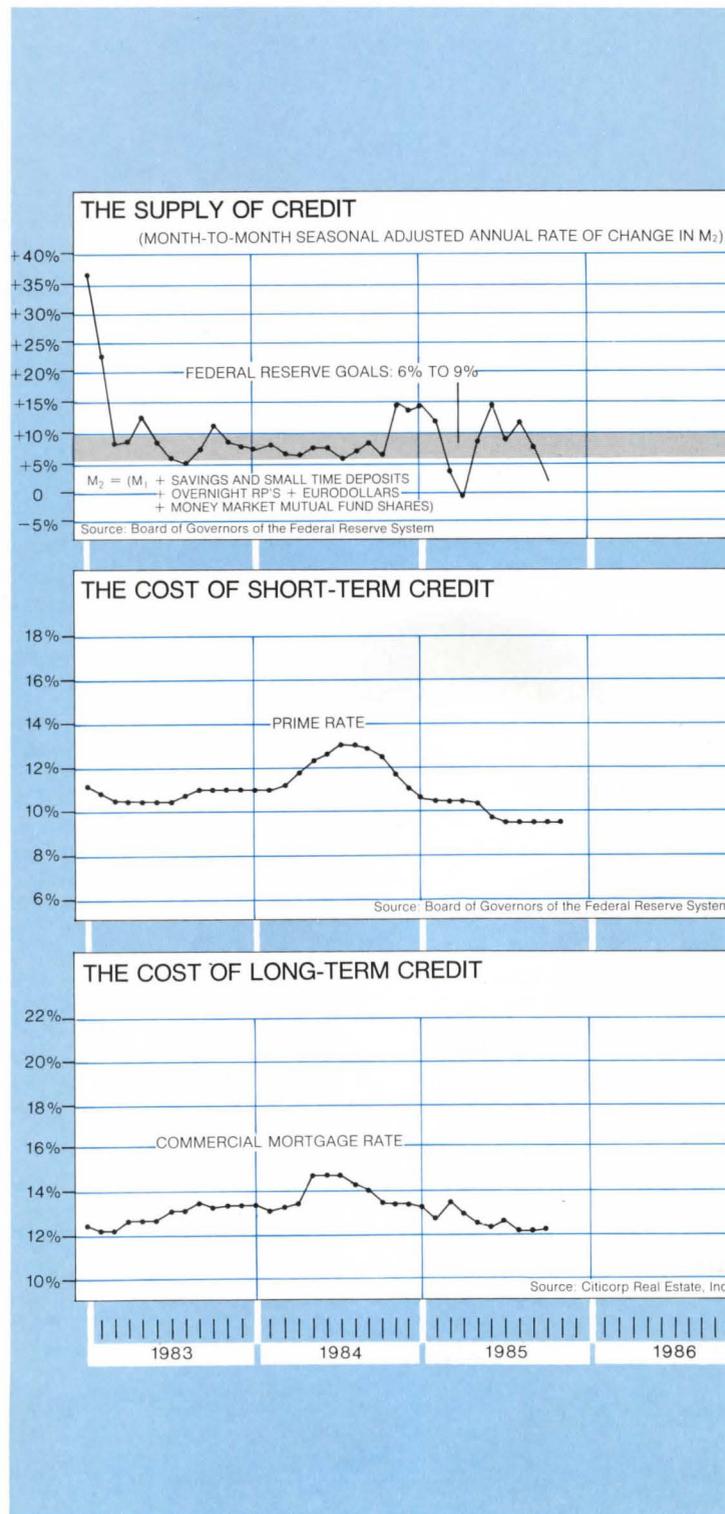
There are several vulnerabilities in this scenario that should cause an uneven pattern of expansion

The price hikes on imports will renew inflationary expectations. Although a continuing irritant, inflation will not be a great problem this year, because these advances are not likely to permit domestic producers to raise prices indiscriminately. Imports still have a price advantage over many domestic goods, which recent and anticipated price increases will narrow, but not eliminate. Thus, American manufacturers will still have to emphasize cost control and quality gains, while holding the line on prices, to regain their domestic and foreign market share.

The most serious obstacle to more vigorous growth is our low savings rate. Throughout this expansion, domestic savings have been insufficient to fund the investment needed to sustain the recovery. Foreign investors have made up the shortfall. Now, with other economies expanding, they will become less dependent on the U. S. money and capital market for investments and will slow their inflow of funds. In turn, domestic consumers must save more out of their incomes to enlarge the supply of money for domestic investment and to keep the lid on interest rates.

With federal deficits too large and tax reform an unknown, monetary policy will continue to shoulder the bulk of responsibility for maintaining growth in the economy. In recent months, the Federal Reserve has backed away from its aggressive easing of the spring/summer. Its current policy is to push interest rates downward slowly but surely. Soon, probably late this quarter, that policy will be met with increasingly stubborn resistance as gradually rising demand for funds catches up with sluggish gains in supply.

Nevertheless, the Federal Reserve will continue to inject reserves to accommodate growth without sending interest rates sharply higher. Rates will stabilize in the early spring, with short-term rates in the 7- to 7.5-percent range and mortgage rates in the 10.5- to 12-percent range. That is good news for residential, especially single-family, and retail construction.





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Marketing: Getting published in the general press

The author tells us that, from the point of view of a publicist, getting buildings published is not the important thing; getting a message published is

By Lois E. Boemer

The recommendations that follow are applicable to the media in general. Architectural magazines, however, are a special case with different requirements—including an ongoing interest in individual projects. An article explaining how to get published in the architectural press is scheduled for a future date.

Let's concentrate on the integration of communications and public relations into an overall plan; on focused publicity; and on making those efforts seem, well, personal.

To get published, don't think about one-time shots; think about the image you want to put forward
Getting published is perhaps the most misunderstood facet of marketing or, as I like to call it, communications. When I am asked by a building-design professional to "get a project published in the general press," my immediate response is: "I don't do projects. Do you have a program?"

Only a thorough campaign can educate potential clients, as well as the public, about you as a designer in a way that will make clients want to hire you—that can project your expertise, ability to solve problems, and methods of approach. The message can be sent in brochures, newsletters, direct mail, advertising, seminars, presentations, proposals and by the method discussed here, publicity by virtue of being published.

Before embarking on publicity, you will save time, money, wasted effort, and bruised egos, if you first know your firm. To form a campaign, ask yourself:

- What are my goals and objectives?
- What is my desired image?
- Who are my clients?
- Where are my markets?
- What is my message?
- How can I get it all published?

You've probably noticed other design professionals quoted repeatedly in the press, and you've asked: "Why them and not me?" To inform and educate the public, you must first establish name recognition. When members of the press think about a certain expertise, you want them to think about you, your organization, and staff members as knowledgeable sources of information. (As a former columnist, I can assure you people are not quoted because they are relatives of editors.)

Ms. Boemer is head of Boemer Associates in Boston, a marketing and public relations firm for the building-design professions. Her article is excerpted from a speech she recently gave to the Boston chapter of the Society of Marketing Professional Services.

Projects presented for publication should be more than self-fulfilling and professionally stimulating. They should be an integral part of your communications program and represent your entire firm. Have a consensus within your firm about what it is and does before going to the outside world. Once the word is out, there's no turning back. If I'm told by my client that he or she has two, three, or four opinions about what should be published, a red flag goes up, and we regroup.

As a professional, you are trained to solve problems. It always amazes me, then, when architects overlook this very important aspect of their business. Your potential clients are asking you for answers—for instance, how to solve their building and organizational needs or how to have marketable buildings. Your publicity program should answer their questions.

Each professional service firm is different. Methods of approach to problems vary from firm to firm. Discover what is unique about your firm, what you do better than your competition, and publicize it.

If your plan truly portrays your program, your publicity will be clearly targeted

Before submitting materials for publication, you must know your markets, your clients, and the publication. This might seem rudimentary but you would be surprised how often project information is lumped together and sent out with total disregard for both the publication and the reader. What publications are your potential clients currently reading? Why? How can you relate? Which publications would be interested in what you have to say? The best publicity I ever received as a columnist came from two young boys. It was timely, personal, had all the facts, was simple to edit, in my area of expertise, and read like this:

Dear Mrs. Boemer:

My brother, Daniel, and I are having a fair next Saturday, August 30, at 14 Mount Ida Terrace, Newton. It is to help needy children at Brook Farm. Will you please tell people in your column?

Love, your friend, Jonathan.

There are then specific ways of presenting materials you want published:

- News releases should be factual and give out one message, not two or three.
- Information pieces say how you and/or your firm solved a problem; what you can offer as solutions to issues facing the industry; and what you perceive in the future.
- Feature stories should be unique, technically oriented or visually

persuasive. Think about features. What has appealed to you? Does your article merit consideration? If so, by whom? Features should be sent to one editor only—not to two or three—after an inquiry to test that editor's interest.

Do not submit anything for publication that is not worthy of it; maintain your credibility

Articles should be comprehensive, timely, and accurate. If you are, within the context of your program, submitting a building for coverage by the general press, use only top-quality graphics, photographs, and print materials. Allow in your marketing budget for professional photographers, renderers, and graphic artists. This is not the place to scrimp and save. We are talking about image, but this does not mean icing on the cake. If your firm is small, and your budget lean, one good photograph taken by a professional is better than a dozen bad ones by you.

Decide where your material fits, maintain good press files, and tailor your submission accordingly. And, don't forget to check with your client. I've observed long-standing relationships shattered because of ill-timed publicity. Sometimes no publicity is the best publicity.

Your business is a personal one. Do not confuse your publicity with that which is product-oriented. Keeping your clients, and gaining new ones, is achieved on a one-on-one basis. Similarly, you must get to know the people who edit the publications you want your material to appear in. These people have likes, dislikes, timetables, ridiculous deadlines, as well as special expertise.

Either you or your publicist should make personal contact with these people to assure their good will. But, even as friends, they do not have the time, nor the inclination, to wade through page after page of verbiage trying to decipher a hidden message. Nor do they have patience with phone calls asking what kind of articles their publication prints.

After you have made an inquiry, collected the data, and cleared with all concerned, send out your material with a covering letter. This is one more courtesy, and one more personal approach. Reams of paper marked for *immediate release* are tossed in the trash every day.

And, do not forget to send a "thank you" when the material is published.

If you follow these simple guidelines—get organized, target your efforts, and promote what is truly newsworthy to those who are interested—you have a good chance of getting published in the appropriate media.

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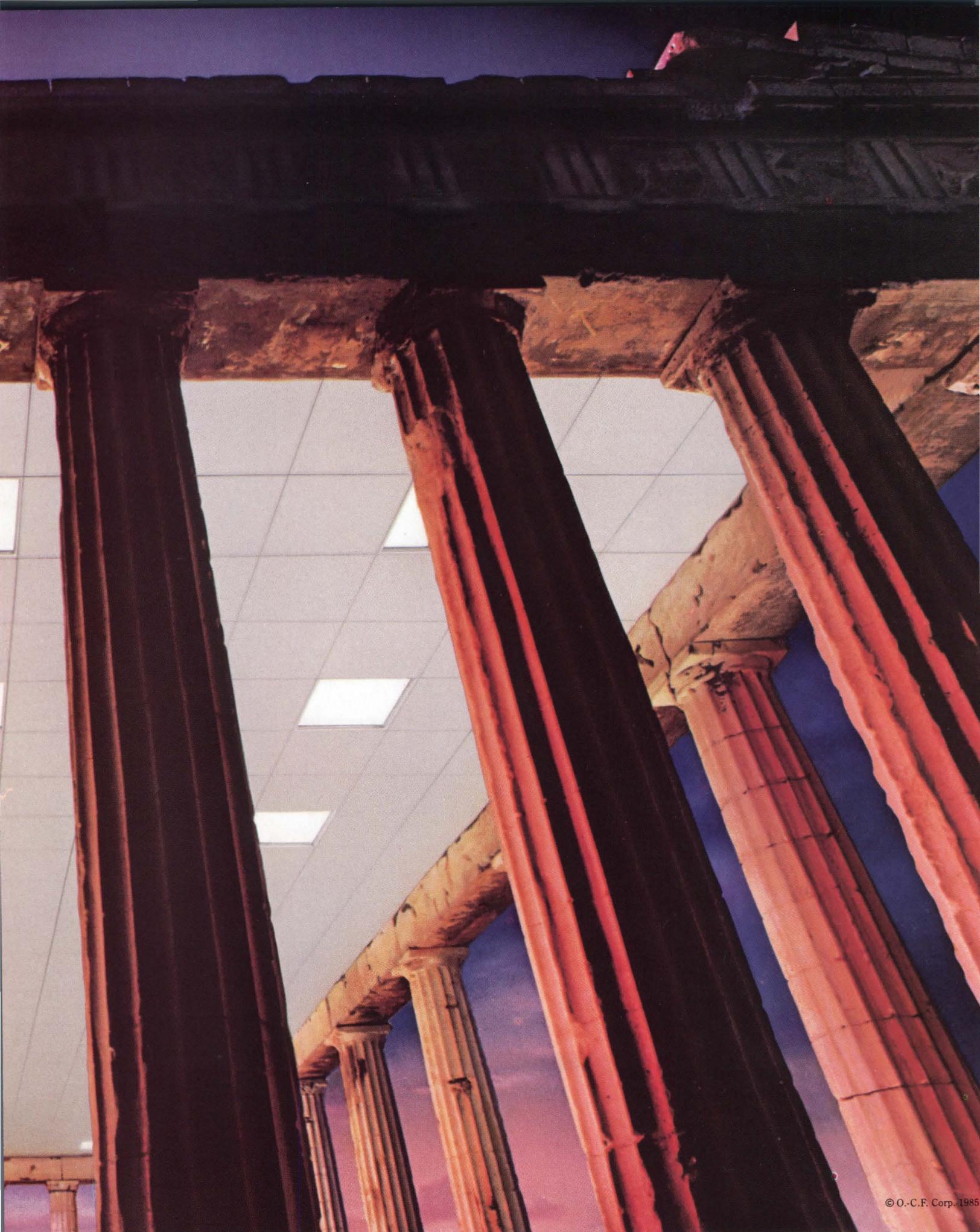




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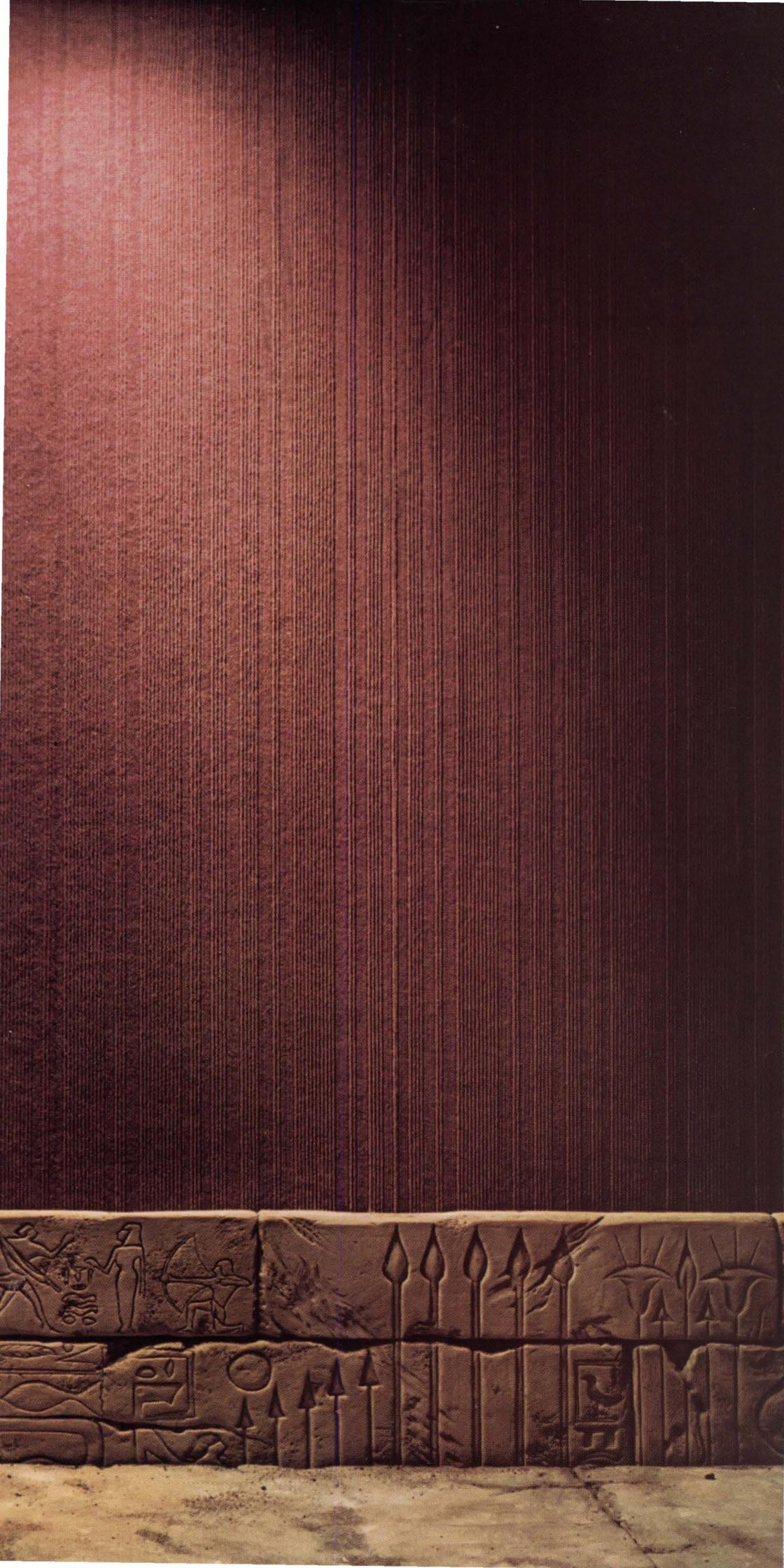


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Inspiring plans have been developed to restore the Statue and to create on Ellis Island a permanent museum celebrating the ethnic diversity of this country of immigrants. But unless restoration is begun now, these two landmarks in our nation's heritage could be closed at the very time America is celebrating their hundredth anniversaries. The 230 million dollars needed to carry out the work is needed now.

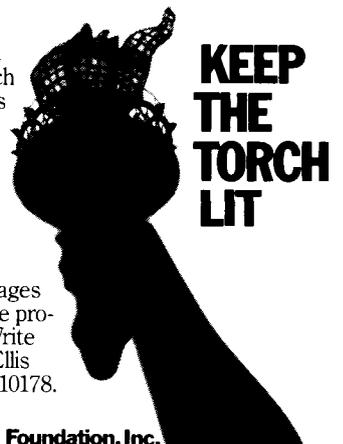
All of the money must come from private donations; the federal government is not raising the funds. This is consistent with the Statue's origins. The French people paid for its creation themselves. And America's businesses spearheaded the public contributions that were needed for its construction and for the pedestal.

The torch of liberty is everyone's to cherish. Could we hold up our heads as Americans if we allowed the time to come when she can no longer hold up hers?

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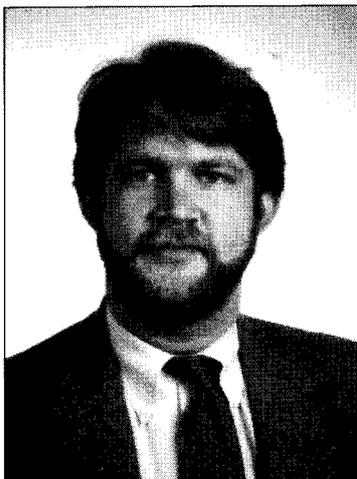


You are invited to learn more about the advantages of corporate sponsorship during the nationwide promotions surrounding the restoration project. Write on your letterhead to: The Statue of Liberty-Ellis Island Foundation, Inc., 101 Park Ave, N.Y., N.Y. 10178.



Architectural education: The practicing office as a structured resource

By Peter G. Bernstein



The architect's office offers a wealth of opportunity for education and enrichment. Architectural practice is by nature varied and complex, and requires expertise in many areas.

The process of educating both the community and the profession is never-ending. It is the architect's obligation to try and provide some of this education and enrichment to his or her community and staff, for it is in an enriched environment that the architect can best serve and be served. Described here are some of the ways in which our office of 200 in San Francisco tries to provide some of this education and enrichment, to give something back to the community in which we play an important part.

A three-pronged approach for well-rounded training

Our efforts to take advantage of the educational opportunities in our office fall into three broad categories: research, professional education and development, and enrichment. Each component has evolved gradually over the 22-year history of the firm, and each plays an important role in establishing our special office environment. Our office has always taken pride in being an innovative, interesting, and fun place in which to work; the projects and programs described here contribute directly to this atmosphere.

The work performed in any office is not always exciting or stimulating, and can sometimes be tedious and stressful. The variety of what we loosely describe as educational and enrichment programs provides both a "balance" as well as release for our staff, and

Phillip G. Bernstein, AIA, received his Master of Architecture from Yale and is presently an architect in the San Francisco office of Kaplan/McLaughlin/Diaz, where he coordinates the In-House Education Program and other "Fun & Games" for the firm.

thus contributes to a more productive work environment.

Research: an ongoing complement to practice

Our firm had its beginnings in investigatory efforts, and has allocated one to two percent of its net budget each year to such research. We consistently overspend this amount, and the variety of research attempted in the past 20 years is testimony to the enthusiasm for such pursuits. Although the firm has grown from 5 staff members to 200, the quantity of research has remained constant, and for good reason: research work often gets us jobs. Results from the studies we undertake are often published, providing us with publicity, and their topics are often relevant to projects we work on, enhancing our expertise. We pride (and market) ourselves on our innovative attitudes and approaches to problems, and our research efforts are clear evidence of this approach. K/McL/D's research can be organized in several broad categories, described here with memorable examples:

General research has included studies on housing density, fire and code requirements for mental health facilities, and severity of mental illness and design implications, among others. The investigations are undertaken not only to enhance our understanding of a given problem at hand, but to influence its resolution: our fire and exiting studies inspired NFPA to change requirements for mental health buildings, and our "severity" study suggested several innovative approaches to planning and design for these projects.

Building type research has made us experts on a variety of building types, especially health design. Our studies of hospital nursing unit shapes, medical office building prototypes, patient bedroom types, and the use of public space in hospitals have informed and strongly influenced our design of these buildings and our appeal as experts to prospective clients.

Post-occupancy evaluation is a continuing effort by the firm to evaluate our projects after they are in use, thus informing the design of similar projects. We assemble an evaluation team that includes an architect from outside the firm, a user and an environmental psychologist or sociologist; the team produces a detailed analysis of a project. Evaluations have been performed on at least eight of our projects, including mental health buildings, housing for the elderly and low-income housing.

City planning is a recent interest of the firm, inspired by K/McL/D's growing commercial practice.

The San Francisco firm of Kaplan/McLaughlin/Diaz has developed a very spirited and effective program for the training and development of neophyte architects—not only for its own staff, but for selected students (often with academic credit). Some details are presented here

Several studies, notably the proposed plan for Denver's undeveloped Platte River Valley, are speculative in nature and are thereby promotional as well; they often generate interest that develops into actual projects. Other studies that have increased our planning expertise include an investigation into the "Manhattanization" of San Francisco and "The Agora—Tall Buildings, Tight Streets," an inquiry into the nature of indoor urban spaces.

Follies are a series of research projects that defy characterization, but have generated considerable enthusiasm in the office. Most recent of these was our "Designer's Guide to Good Eats," produced by the firm's Bay Area restaurant aficionados as an architect's critique of San Francisco fare; the "Guide" was itself reviewed in a local paper. In progress is "Hidden L. A.," a tour of important but obscure architecture in the Los Angeles area, prepared in conjunction with the San Francisco Museum of Modern Art. Like many of our research projects, "Hidden L. A." has been taken on by someone in the office with a passion for the architecture of Los Angeles, and it is this enthusiasm that assures the success of the effort.

Professional education: spreading the wealth of know-how

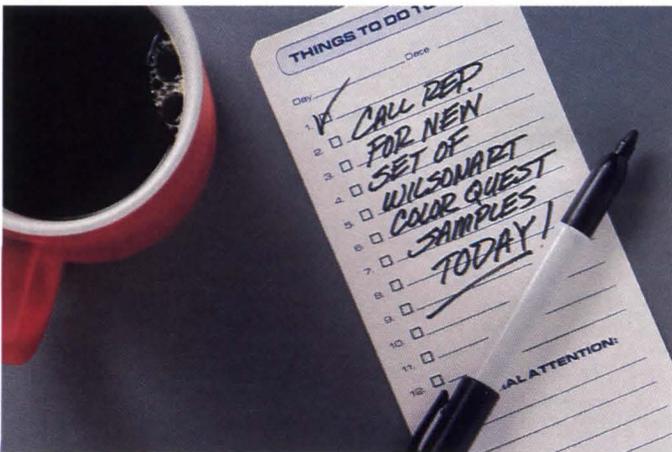
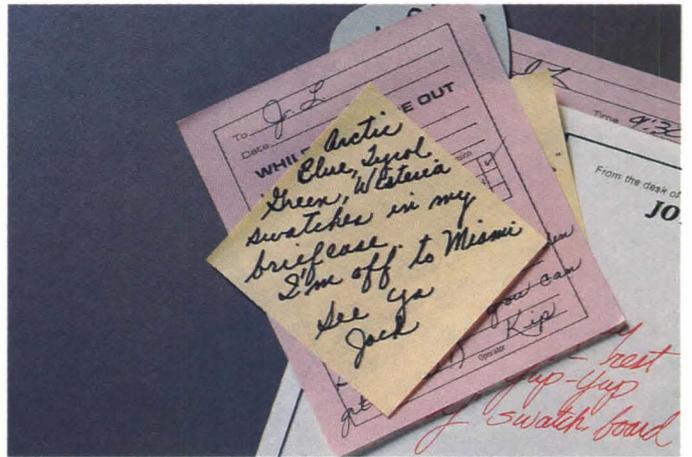
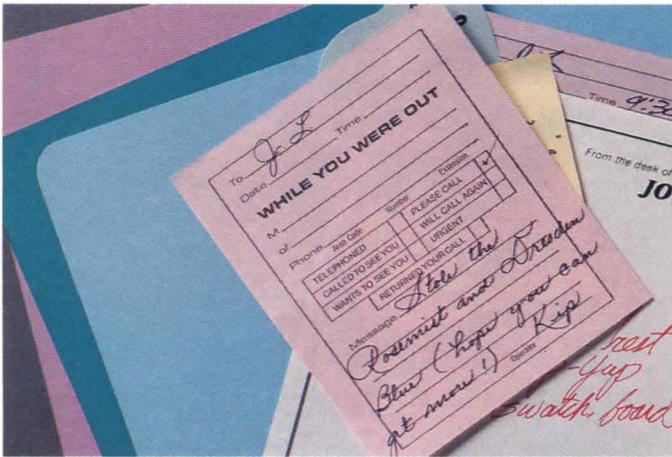
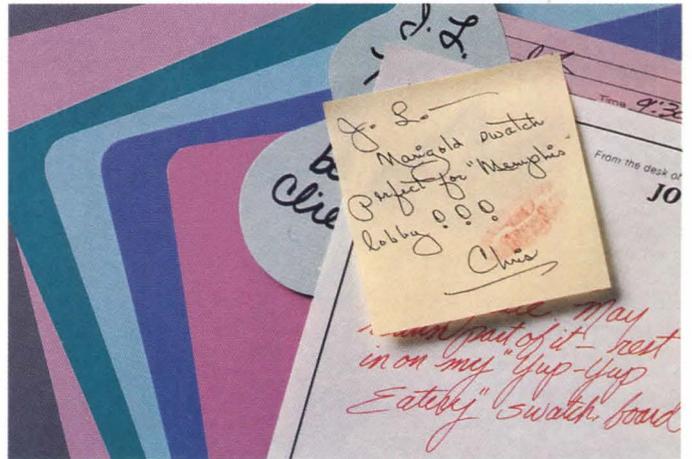
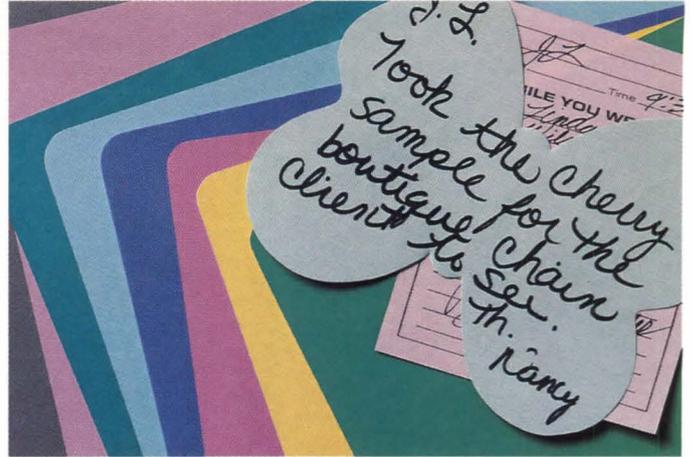
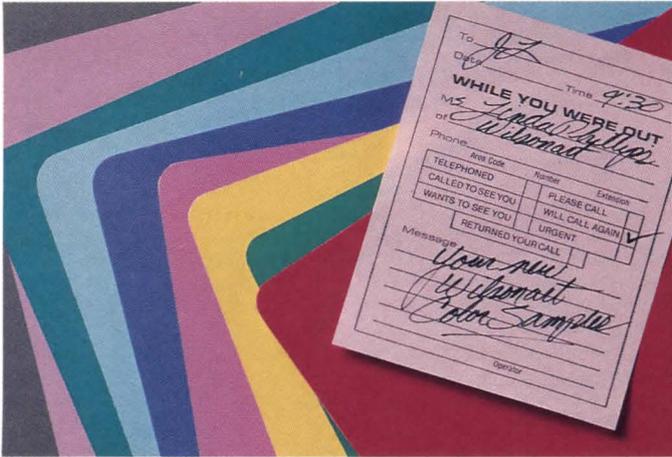
The continuing education and development of the staff is a must in a growing and active practice, and especially important in a profession in which competence requires broad exposure. We have developed a number of programs meant to enhance our staff's skills, interest and experience in design, office and project management, professional development, and technical expertise. K/McL/D emphasizes the need for each employee to have an interdisciplinary understanding of our practice. Our firm is organized into individual studios, much like small offices, a structure which discourages specialization and rewards broad experience; the programs described below are designed to provide this experience while maintaining enthusiasm for learning among the staff.

Project management and professional development seminars are the most structured means we use to disseminate standards, policies and techniques in our large office. Seminars presented to the staff in 11 once-a-week sessions acquaint them with the players and procedures that are important to the efficient operation of the firm. They include presentations by senior staff on marketing and presentation skills,

project incentives and staff motivation, contracts and recordkeeping, project team organization, client (and partner) relations, and construction administration policy. Upon finishing the series, the employee comes away with both a written compendium of office standards and procedures as well as an understanding of them often not accomplished by casual perusal of an office policy manual. Management seminars are supplemented by a series of professional development presentations by a local management consultant. Discussion focuses on less technical and procedural topics that are nonetheless important to practice, including client relations, time management, communication skills, and business letter writing.

Design reviews have been a tradition at the firm since its earliest days. They are regular presentations of projects being designed in the office, held as open juries that any member of the staff is encouraged to attend. They are scheduled at 5:00 PM (one half hour before the end of the day) and attendees are paid for this time with the understanding that the review will continue on their own time until 6:00, but often later. Discussion is freewheeling, beer is provided, and irreverence encouraged. Design reviews have two important functions: they provide a mechanism for publicizing the progress of projects in our large office where it is easy to lose track of what is happening on the floor above and, more importantly, they frequently influence the design of the building under consideration.

Design workshops and roundtables are organized and presented as interest develops in a particular design or technical issue. Weekend symposiums or lunchtime lectures are presented by resident experts on a range of topics from "The Philosophy of High Rise Design" to "Design of Outpatient Surgicare Centers and MRIs." The workshops are an effective way to disseminate information about a recent technological advance or important new building type while taking advantage of the expertise in the office. The "roundtable" format is equally effective in encouraging an informal atmosphere in which to pick the brains of our unwitting volunteer presenters, who have ventured among their peers to discuss their favorite topics, including "Mexican Architecture and Conversations with Barragán" (margaritas included), "Bay Area Historicism," "The Geometrists," and an open discussion with several critics and editors of the
Continued



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professional journals. A recent program after work pitted our classicists against the forces of modernism in a debate entitled "Classicism Is Not a Style!" (the office agreed). Casual discussion and a little prodding among the staff will often uncover some hidden area of expertise that can be enthusiastically converted into something of benefit for the whole office.

In-house design competitions are now second nature to everyone in the architectural office, and that willingness to work furiously (and often charitably) in the quest of fame and fortune can be directed to positive ends. We have found in-house competitions to be useful in two ways: as a method to "untrack" a particularly thorny design dilemma on a given project, and as an outlet to vent the design frustration of the staff. In either case competitions are a reliable way to generate some excitement, and yield interesting if not always useful solutions. Prizes are an important incentive in generating enthusiasm for the competitions, and the value of the prize may often be much less than that of the time required to solve the design by traditional means. The winner of a recent sketch problem to design the roof garden for a local sculptor was flown to New York for dinner at the 21 Club, yet that same designer returned to San Francisco to design and run that project until its completion. Small, design-oriented problems with exotic prizes promise the most reliable results.

Of course, not all such competitions need stem from serious beginnings. Our most recent extravaganza, entitled "Seven Days In May," was conceived in the name of fun only. The program, "A Yuppie Monument for San Francisco," designated a site in the city and required the provision of a goat cheese refrigerator and a resting place for the San Francisco Business Card Archive. Over 30 entries were submitted during the competition (later extended and renamed "Fourteen Days in May" in the manner to which architects are accustomed), vying for prizes donated by senior members of the staff. Some of the prizes: a day at a local shooting range for "The Most On-Target" scheme, tickets to an amusement park for "The Most User-Friendly" scheme, and dancing and champagne for two for the scheme which "Tripped the Light Fantastic." "Seven Days," conceived only for the enjoyment of the staff, served to lift its spirits as well.

Architects' presentations provide perhaps the best effect for the effort required by any of our education programs. Architects are

always willing to discuss their work, and we avail ourselves of this inclination by inviting various Bay Area and visiting practitioners to come to our office and speak informally about their current thinking and projects. For local colleagues we offer to make similar presentations in their offices if they so desire. It is surprisingly easy to convince an architect in town for a lecture or teaching engagement to drop by the office for a lunchtime chat, giving the staff a chance to quiz him about his work. Visits to K/McL/D by Eisenmann, Stern, Bofill, and Taft Architects have done much to enliven the office atmosphere.

The in-house education program: the school within the office

One of our most ambitious and so far successful educational endeavors has been our "School Within the Office." Consistent with our attitude about the architect's obligation to give something back to the profession is our commitment to helping prepare architecture students for their careers. We realize that the resources and opportunities afforded by a diverse practice like ours offer an ideal learning environment for the apprentice architect, and by offering such an experience both K/McL/D and the students could greatly benefit. We researched the professional practice requirements of almost 50 of the nation's architecture schools in an effort to design a program that would best fit the needs of the office and the students. The program consists of three components: full-time work in one of the office's 11 studios; a design class taught by our senior designer staff; and participation in the various presentations and seminars offered as general public fare, augmented with special concentrated lectures on appropriate topics. We composed and distributed a brochure to schools we felt might be interested, received portfolios from the applicants, and selected seven students who will take a semester off from the regular academic year to live in San Francisco and work at K/McL/D.

The small office structure of each studio is particularly suited to the program as conceived, and the opportunities for interesting work are manifold. Each studio member quickly assumes as much responsibility as he or she can manage. Thus an entrepreneurial attitude, in addition to a strong portfolio, was a prerequisite for admission into the program. And the variety of work currently underway in the office, including healthcare, housing, renovation and office commercial, assures that the

students' exposure will be broad.

A design class is offered in addition to the studio experience. Our senior designers give problems in their areas of expertise, and the students are given the chance to attempt the design of urban housing, the master planning of a hospital and its medical office building, and various other problems of current interest in the office. Our clients and consultants are invited to participate in criticism of these very nonacademic projects, giving the students an additional perspective on solving architectural problems in the real world. Several are receiving academic credit for the teaching studio component of the program, as well as work experience credit for their regular office duties; the student's school determines the nature of the credit the student will receive for the program. Our program demands much of the interns, and they are laboring with appropriate fervor as they juggle the responsibilities of the program with the temptations of life in San Francisco. The firm, meanwhile, enjoys both the excitement generated by the program and the recruiting opportunity to evaluate the graduates of a variety of the nation's schools.

Enrichment: the bread and circus, fun and games

K/McL/D makes great effort to adrenalize the office atmosphere with a variety of activities that are described here as enrichment, as opposed to education. The monthly office calendar is punctuated with activities intended only to make the office a more interesting place to spend time and effort. These activities are largely generated and coordinated by a group of employees known affectionately as the "Fun & Games Committee," whose sole charge from the partners is to provide the "bread and circus" necessary to keep the level of enthusiasm high. Fun & Games is given no budget, and its members contribute their time to plan and produce activities; its ability to finance its ideas is, in the true spirit of the office, directly related to its ability to convince management to pay for them. The committee is both a sounding board for ideas from the general staff, a think tank, and a production crew, which has mounted a full-scale campaign of festivities in the two years of its existence. Fun & Games is our office's way of sponsoring activities and programs beyond the obligatory picnics and softball (which they must do as well); they will orchestrate anything that seems remotely relevant or is just plain fun. Examples follow:

Workshops on such varied fare as

kitemaking, freehand drawing, puppetmaking and shadowcasting have been offered on weekends and late afternoons. Local experts were invited to teach these three-hour seminars; our kitemakers spent a morning constructing kites (and honing their model-making skills) and a glorious spring afternoon flying the fruits of their labors on the roof of the office.

Exhibits and slide presentations have been mounted at K/McL/D with regularity. Local artists are invited to hang their work around the office for several weeks, and we provide a modest reception for the show opening. And our staff, like many, is well-traveled and imbued with an unending supply of slides of the exotic and mundane, which they are more than willing to show during a lunchtime presentation.

The afternoon film series screened a series of vaguely architectural movies, the cost of which were shared with another local office. The once-a-week screenings included *The Fountainhead*, *Metropolis*, *Beyond Utopia*, and (of course) *Mr. Blandings Builds His Dream House*.

Some concluding thoughts: any office can do this

It might be argued that the financial resources available to an office of 200 are the only reasons that our ambitious programs are possible, but this is not in fact the case. The programs, research, and activities depend largely on the time enthusiastically contributed by our employees who orchestrate them, and many are free altogether. Thus many of these opportunities exist for the office of 6 or 60, lacking only someone who is interested in making that place a more enlightening and thereby more productive environment in which to work, a place that tries to give something back to the community upon which it depends.



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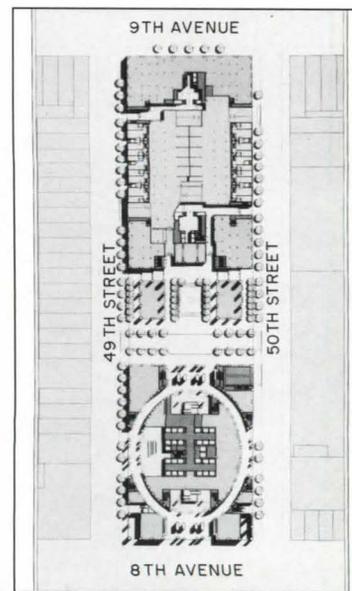
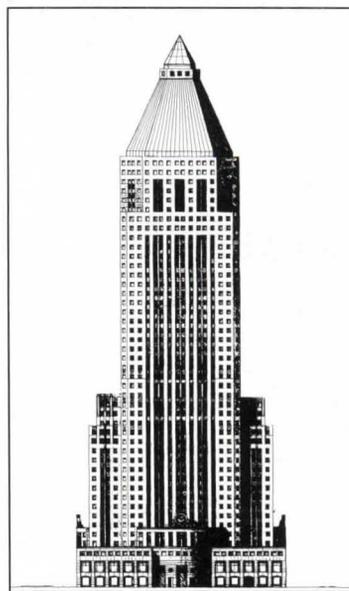
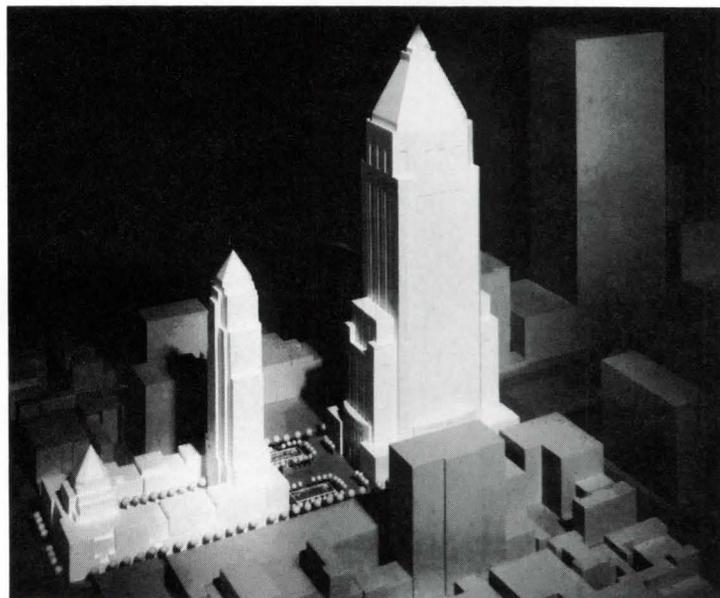
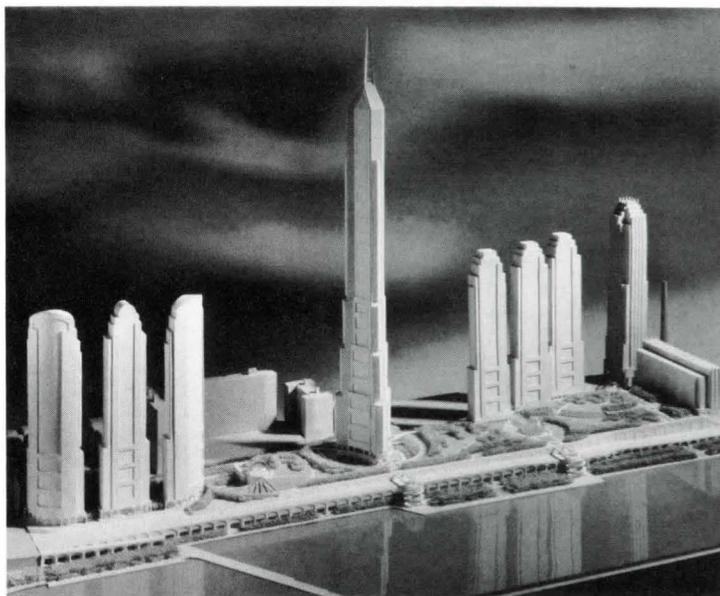
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Westward the course of New York's real estate empire

Although grandly scaled architectural projects are not unusual in New York, a pair of proposals recently unveiled for two large undeveloped sites on Manhattan's West Side has raised the eyebrows of even those New Yorkers seemingly accustomed to the bigger-is-better mentality of building. By far the more controversial of the two developments is a proposal, designed by Helmut Jahn of Murphy/Jahn for a 100-acre site formerly occupied by the Penn Central Railroad yards, that real-estate impresario Donald Trump immodestly calls "one of the greatest jobs of all time." The object of Trump's affection is Television City, a vast mixed-use complex so named because it incorporates 3.6 million square feet of studios and technical facilities that are meant to keep New York's television industry in the city. While many of Television City's statistics are impressive—8,000 residential units in six 76-story apartment towers, 1.7 million square feet of retail space, and a 13-block-long Hudson River promenade—it is Trump's plans to erect the world's tallest building as the centerpiece of the ensemble that has boggled the minds of many. At 150 stories and 1,670 feet (1,910 feet including spire and antenna), the mixed-use building would easily surpass the 110 stories and 1,454 feet of Chicago's Sears Tower. Jahn's designs are still in the schematic stage, but the rendering illustrated here shows the building to be a tall variation on the architect's unbuilt Southwest Center in Houston.

While early reaction to the Trump scheme has been mixed at best, another large-scale development, this one proposed for the entire midtown block once occupied by the old Madison Square Garden, has received more favorable early comments. Plans drawn up by Skidmore, Owings & Merrill call for a mixed-use project comprising a 45-story, 1.5-million-square-foot office tower facing Eighth Avenue, a set of low-rise apartment buildings at the western end of the site, and a 39-story midblock tower intended to ease the transition between residential Ninth Avenue and the denser commercial zoning to the east. Although the scale of the office building in particular is far from delicate, the structure does exhibit such features as a setback profile, a classically composed masonry base, and a polygonal copper lantern—time-honored details that one traditionally associates with New York skyscrapers from the 1920s and '30s. Associated architects for the residential portion of the project are Frank Williams & Associates.

1. Model of Television City in New York, by Helmut Jahn.
2. Model of mixed-use proposal for the old Madison Square Garden site in New York, by Skidmore, Owings & Merrill.
3. 49th Street elevation of proposed commercial tower at the old Madison Square Garden site.
4. Proposed site plan for the old Madison Square Garden block.



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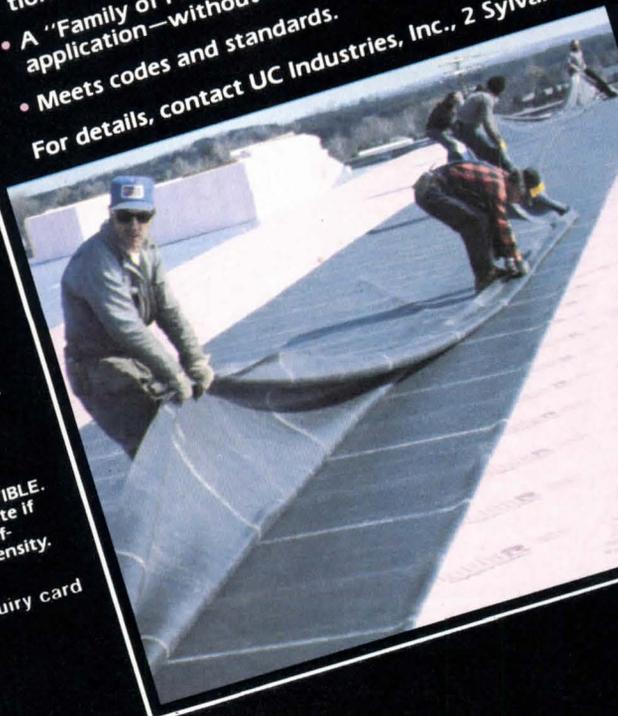
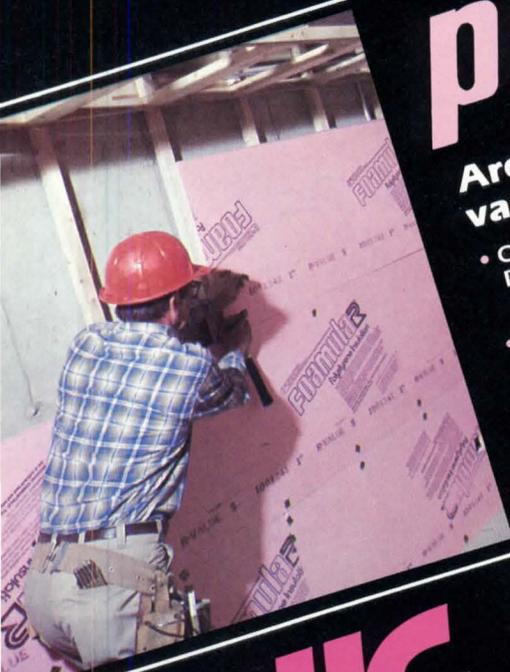


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News briefs

The long and the short of it in Sacramento

Five architectural firms have been named to compete in the final round of a design competition for a new civic center in Oceanside, California. The finalists are Arquitectonica; ELS/Elbasani & Logan; Heller & Leake; Kaplan/McLaughlin/Diaz; and Charles Moore/Urban Innovations Group. The winner will be selected at the end of January.

The Schroeder House in Utrecht, the De Stijl landmark designed in 1924 by Dutch architect Gerrit Rietveld, is currently being restored and converted into a public museum devoted to Rietveld's work. Completion of the renovation is scheduled for the fall of 1986.

International Design Seminars has organized six study tours of Europe for architects and other design professionals. The tours will take place from March through October, and each will begin in Helsinki before branching out to various destinations in Finland, the Soviet Union, and other countries. For information contact IDS, 4206 38th St. N. W., Washington D. C. 20016 (202/363-8771).

Krueger, Inc., the American manufacturer of contract furniture headquartered in Green Bay, Wisconsin, has acquired licensing and distribution rights for Italian furniture maker Castelli S. P. A. The new wholly owned subsidiary will be called Krueger Contract International.

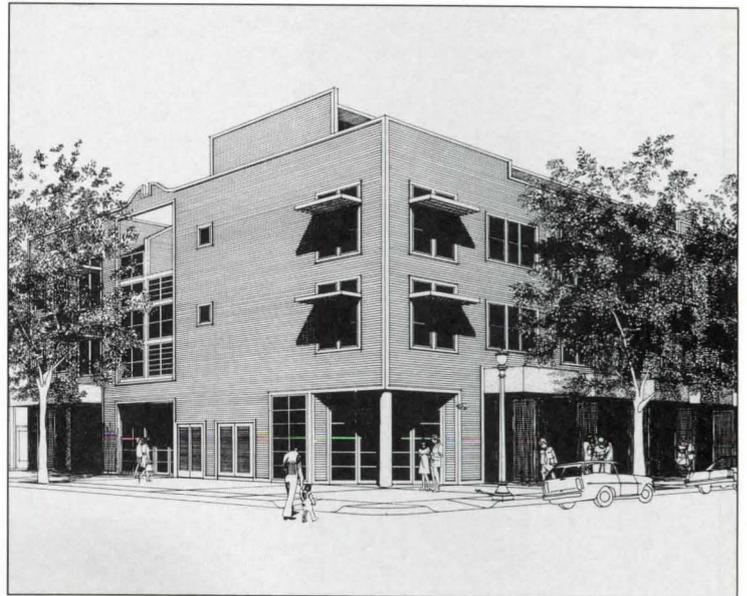
Mies van der Rohe's Barcelona Pavilion, one of the most celebrated buildings of the modern movement, has been reconstructed on its original site in Barcelona, Spain. Originally erected as the German government's official building at the International Exhibition of 1929, the pavilion was demolished shortly after the fair closed and has been known mainly through black-and-white photographs. The building will be used for receptions and official social functions, and its reconstruction coincides with the centennial of Mies's birth.

Stuart Wrede, an architect and architectural historian, has been named curator of the Department of Architecture and Design at the Museum of Modern Art in New York City.

Two architectural critics, Benjamin Forgey of *The Washington Post* and Beth Dunlop of *The Miami Herald*, were among six journalists recently cited in the fourth annual Manufacturers Hanover Art/World Awards for distinguished newspaper art criticism.



Two current projects in Sacramento exemplify the dual nature of development in the burgeoning California state capital. For a downtown site near Capitol Mall, Anthony Lumsden of Daniel Mann Johnson Mendenhall has designed a 25-story office building, dubbed Renaissance Tower, whose setback facades of gold-colored glass and gray concrete are a striking departure from the rectangular

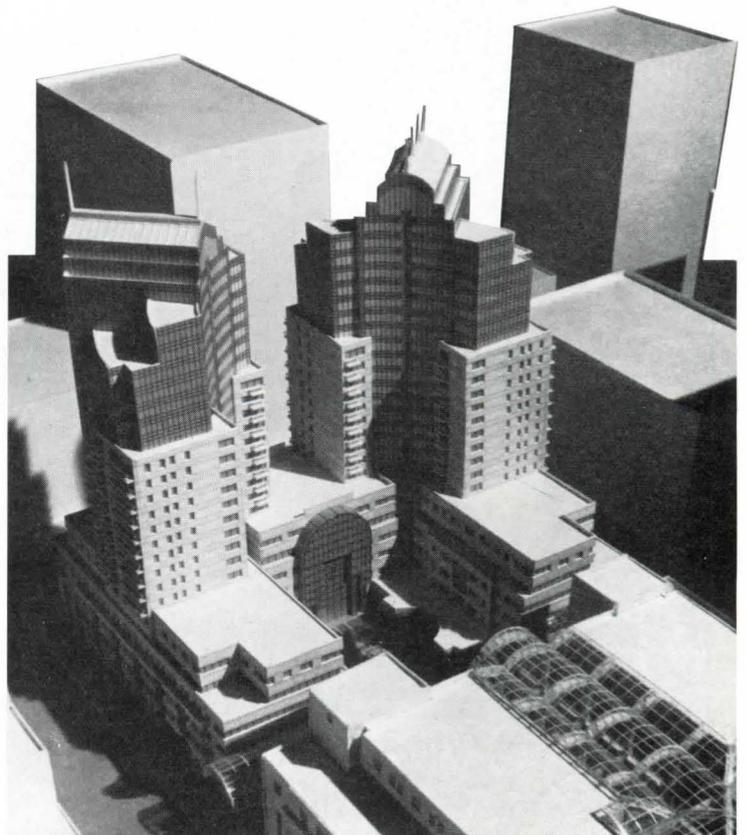


slabs that characterize much of the city's recent commercial architecture. Associated architects on the project are Carissimi-Rohrer. Meanwhile, just outside the central business district, a partially abandoned rooming house built in 1910 is being converted into a mixed-use structure comprising 18 condominium apartments and 6,400 square feet of commercial space. The renovation represents a return

to the building's original combination of upper-story dwelling units and ground-floor shops. In order to allow light into the interior of the three-story structure, architects Mogavero + Associates have carved out an 18-foot-wide court along the building's rear flank. Painted redwood siding and false-front parapets are appealingly domestic, and indigenously Western, details.

To the letter of the law

A major goal of the new downtown plan recently enacted by the San Francisco Board of Supervisors was to shift development away from the city's overbuilt financial district to an underutilized adjacent area south of Market Street. Rincon Center is one of the best examples to date of the type of mixed-use project that the new zoning is meant to encourage. Designed by Pereira Associates, the complex comprises an existing Art Deco post office (right foreground in photo) that will be converted into a retail and commercial facility; formal open-air plazas; and a pair of 14-story residential towers set atop a six-story commercial base that continues the cornice line of the post office. The towers terminate in peaked and segmental-arched setback crowns—the "expressive tops" mandated by the city's new guidelines for tall buildings.



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Prince Charles pays the AIA a visit



On November 9, the American Institute of Architects shared the storm of media attention that accompanied Prince Charles of Wales's American tour when he included the AIA on his Washington itinerary. The Prince, who has taken an active and even controversial interest in architecture lately, requested the Institute's assistance in contacting participants in successful community architecture projects in the United States "to learn more about the American urban experience and . . . some of the more successful approaches to 'revitalization by design,'" according to AIA president John A. Busby, Jr. (left in photo). The AIA arranged a discussion between the Prince and a group of architects, planners, and community activists who have participated in the Institute's Rural/Urban Design Assistance Teams (R/UDAT) project.

R/UDAT, in operation since 1967, brings volunteer design and development professionals together with community residents to help them plan their own neighborhood development. The R/UDAT participants who met with the Prince were from the Washington Hill project in Baltimore, and Savannah Landmarks, Inc., a non-profit housing corporation in Savannah, Georgia. The Baltimore project is noteworthy for the degree of racial and economic stability that has been achieved since the R/UDAT recommendations were implemented. The Savannah project preserved a historic neighborhood without displacing low-income residents.

At a press conference following the 50-minute private meeting, the participants described the Prince as "relaxed" and "incredibly well-briefed." They emphasized that the focus of the discussion had been the processes that R/UDATs use to revitalize communities. Said Pittsburgh architect David N. Lewis, "I think he was very aware that the product is not really transferable, but the process is."

"He was interested," said Baltimore activist Betty Hyatt, "in how you mobilize community leadership to bring about the changes you want to take place." Another participant added, "I think he may have been most impressed by the fact that there was a community person here speaking with him and articulating how they went through the problem-solving process."

After the meeting, the Prince spoke briefly with reporters before continuing to the Octagon to view the Treaty of Ghent and the AIA's current exhibition of drawings of Britain's great country houses.

Julia Lichtblau

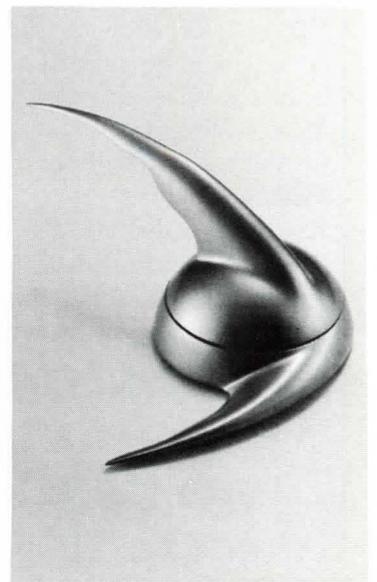
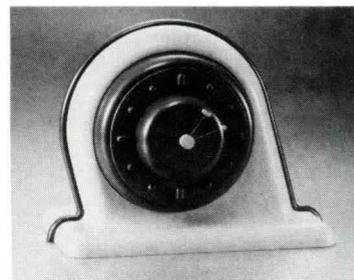
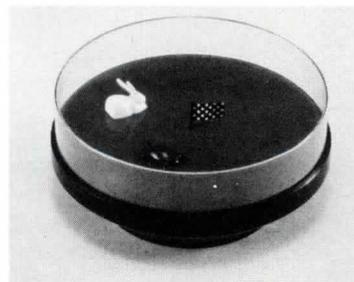
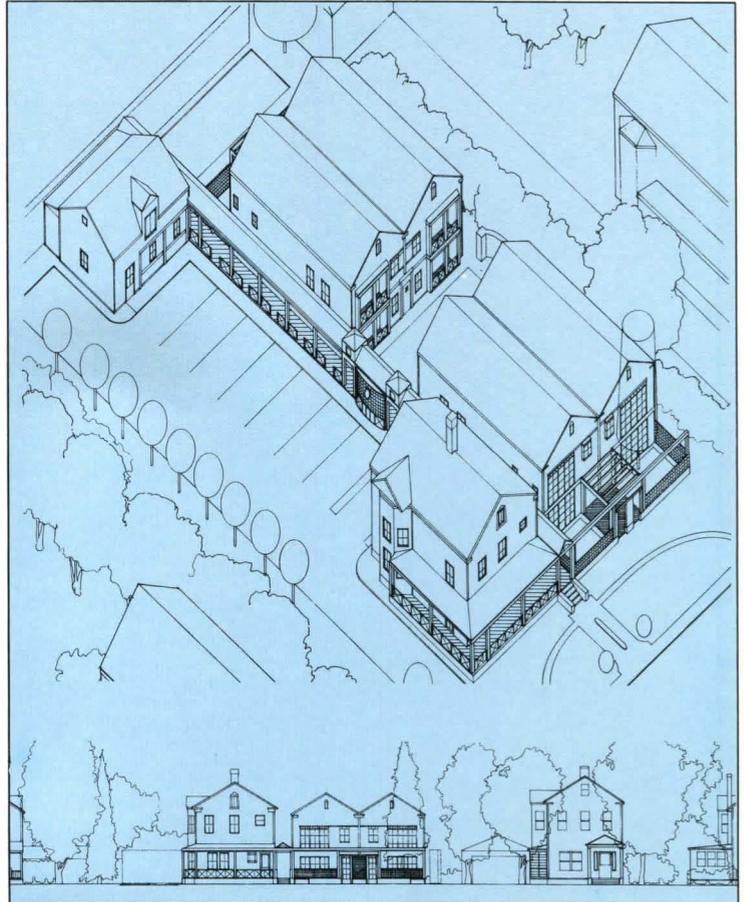
The technology of horology

Table settings, tea services, and, now, clocks. No product, it seems, is beyond the purview of some of the world's best-known architects and designers—witness "Time Machine," an exhibition of prototypical timepieces on view at New York's Gallery 91 through January 25. The show features clocks designed by Emilio Ambasz, Kenneth Grange, Shiro Kuramata, Ettore Sottsass, and Philippe Starck. Included among the works on display are (clockwise from upper left) Ambasz's whimsical magnet-driven instrument that has a tortoise denoting hours and a hare indicating minutes; Starck's sculptural piece consisting of two slowly rotating aluminum wings; and Sottsass's brightly colored plastic clock that, unlike many other objects in the show, actually has hands that can be used to tell the time of day.

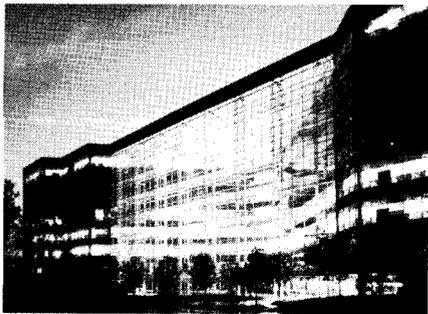
Good neighbor policy

One of the greatest challenges for architects designing housing for the elderly is to create a dignified atmosphere that balances individualized dwellings with communal facilities where occupants can enjoy the company of fellow residents. An eight-unit project developed by architect Michael Burns for St. Luke's Episcopal Church in Gladstone, New Jersey, appears to be a model

of the genre, at least for suburban contexts. Burns's solution incorporates an existing wood frame house (left in renderings), two new peak-roofed structures that exhibit the domestic architectural vocabulary of adjacent early 20th-century dwellings, and a long arcade that connects all three buildings with a parking area, a common backyard, and an existing barn housing recreational facilities.



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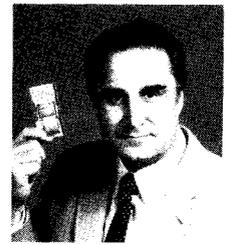
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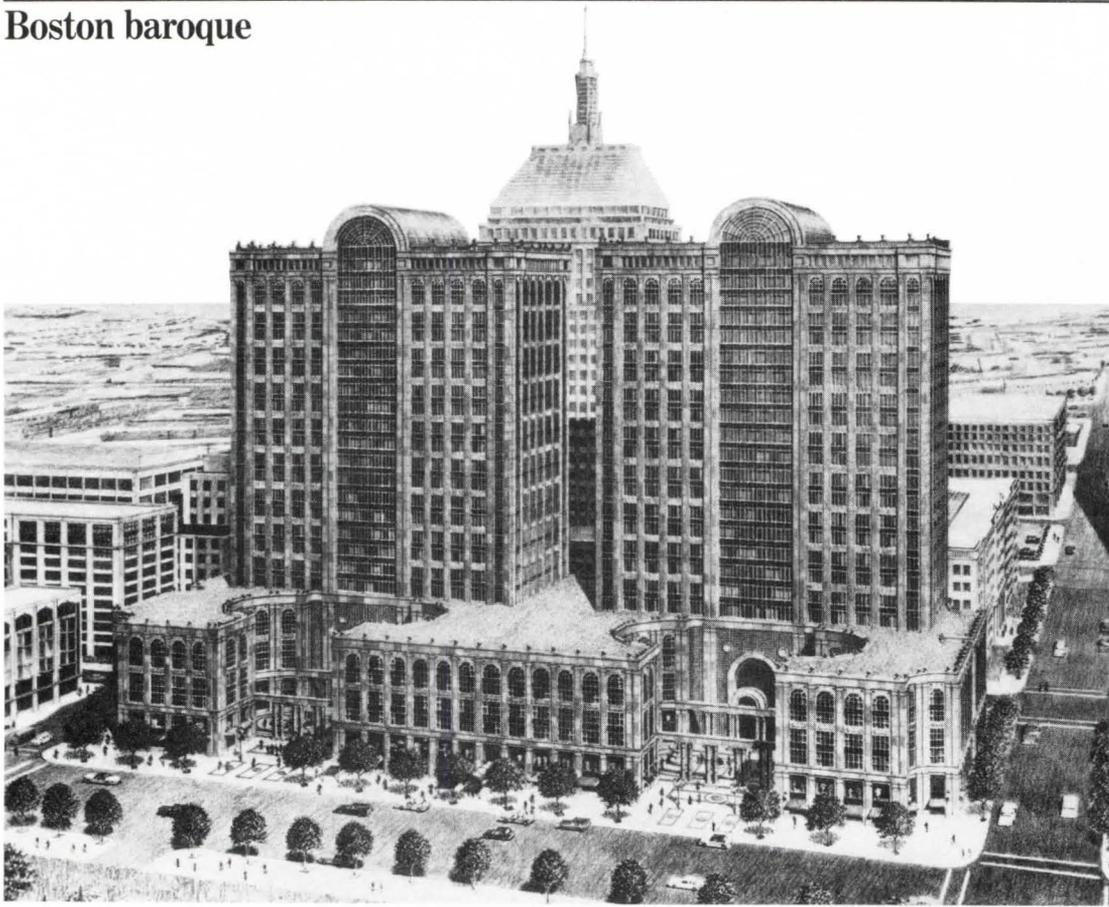
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Boston baroque



When it comes to infusing a bit of historicist drama into a 20th-century urban setting, nobody does it quite like John Burgee Architects with Philip Johnson. In its latest bit of postmodernist wizardry, the firm has designed Five Hundred Boylston, a 1.3-million-square-foot office project in the Back Bay section of Boston that evokes the florid style, if not the relatively modest scale, of turn-of-the-century

American skyscrapers. A joint development of Gerald D. Hines Interests and New England Life, the surprisingly ornate (even for Burgee and Johnson) proposal comprises two 19-story commercial arched vaults, a six-story office and retail base entered through a pair of elliptical courtyards, and three levels of underground parking. The complex will be clad in rose-colored

Stony Creek granite—the same material that the architects used on the AT&T Building in New York City—and light gray glass. Although the rendering shown gives the project the appearance of a unified architectural ensemble, the complex will actually be constructed in two equal phases, the first scheduled for completion in 1988 and the second to be built as Boston's market demand dictates.

Competition calendar

- The Foundation for Architecture and CertainTeed Corporation are sponsoring a competition "to generate ideas for Philadelphia's neighborhoods, downtown, or region which can be translated into designs for buildings, parks, and urban spaces." A total of \$50,000 will be awarded. Entry deadline is February 10. For details, contact The Foundation for Architecture, 117 South 17th St., Philadelphia, Pa. 19103 (215/569-3187).
- The American Society of Interior Designers seeks entries to its annual interior project and product design awards programs. Deadline for registration is April 1. For entry requirements and forms, contact the ASID National Headquarters, 1430 Broadway, New York, N. Y. 10018 (212/944-9220).
- Burroughs Corporation is sponsoring a competition for "innovative three-dimensional product design proposals utilizing computer technology and capability as it relates to the human/machine interface." The competition is open to upper-level students of industrial design or recent graduates. Prizes totaling \$16,000 will be awarded. Entry deadline is March 31. For information, contact Competition Coordinator, Corporate Industrial Design, Burroughs Corporation, 41100 Plymouth Rd. Plymouth, Mich. 48107 (313/451-4468).

Reviving a mercantile tradition

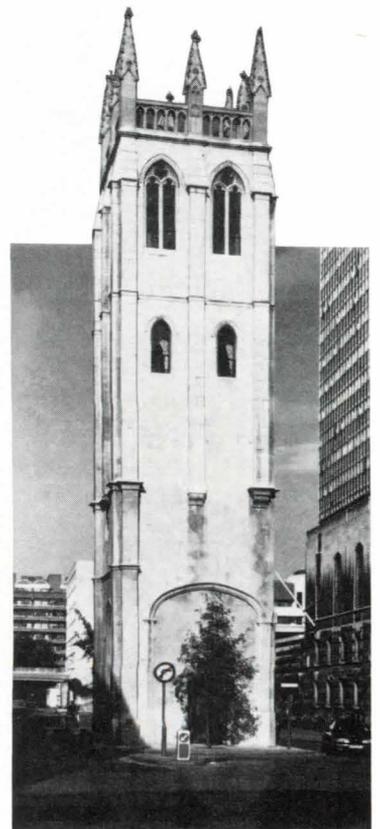


The last intact block of late 19th- and early 20th-century buildings remaining in downtown Harrisburg, Pennsylvania, will be restored and two alleyways in the block converted into an enclosed shopping galleria as the final phase of a 2.25-million-square-foot urban redevelopment scheme dubbed Strawberry Square. The mixed-use project will comprise 78,000 square feet of new retail space, 100,000

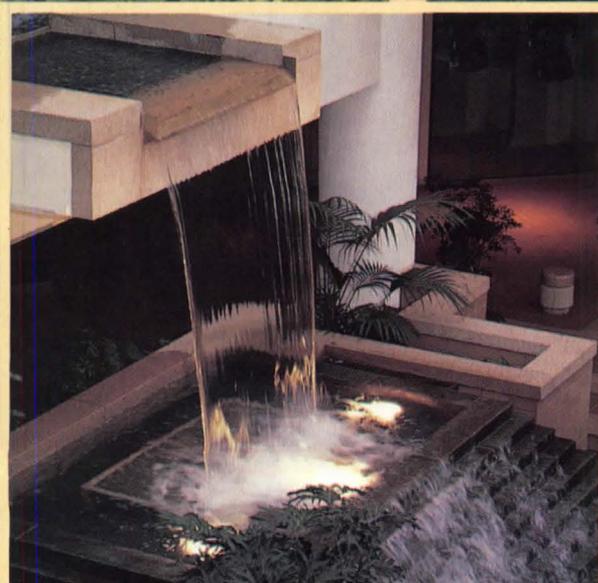
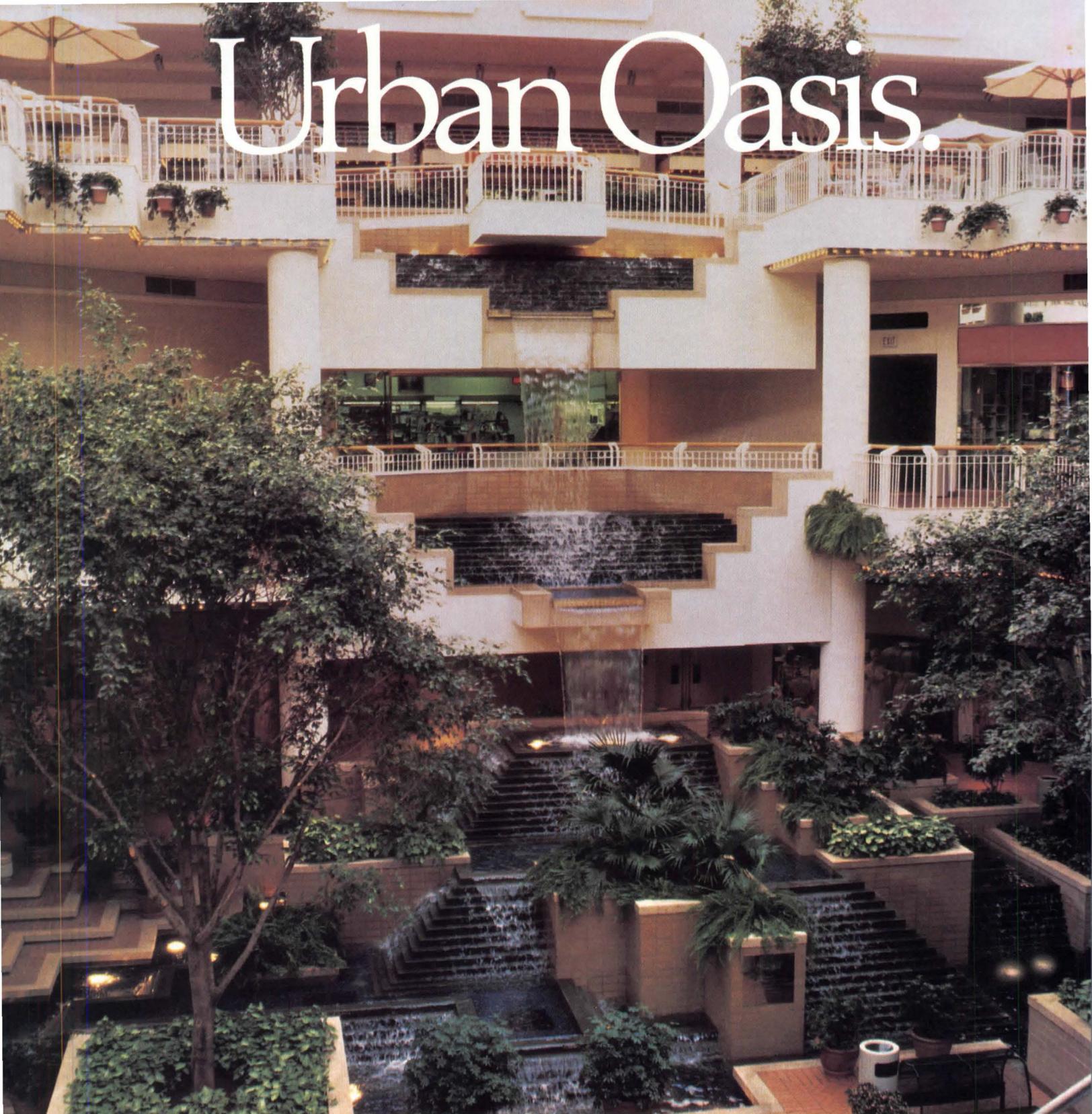
square feet of offices, six movie theaters, and 25 apartments. The two alleyways, one of which is shown in the above rendering (third building from left), form a cross through the center of the block. The proposal calls for two levels of shops under peak-roofed canopies that converge at the intersection of the alleyways to form an eight-sided glass pyramid. Project architects are Beyer Blinder Belle.

From the sacred to the profane

Twenty years after London's Church of St. Alban was heavily damaged in the Great Fire of 1666, Sir Christopher Wren was commissioned to rebuild the church in a correct Perpendicular style. One of Wren's few Gothic works, the church was destroyed by a German air raid in 1940. St. Alban's bell tower survived the bombing, however, and was designated a landmark by the City of London in 1963. In one of the most intriguing adaptive reuse projects in memory, the tower was recently converted into a mixed-use facility comprising three floors of office space, three floors of living quarters, and a roof terrace ringed by crocketed pinnacles. Although the structure's interior floor area totals a modest 976 square feet, realtors have been successful attracting several art and antique dealers to take up residence in the landmark tower.



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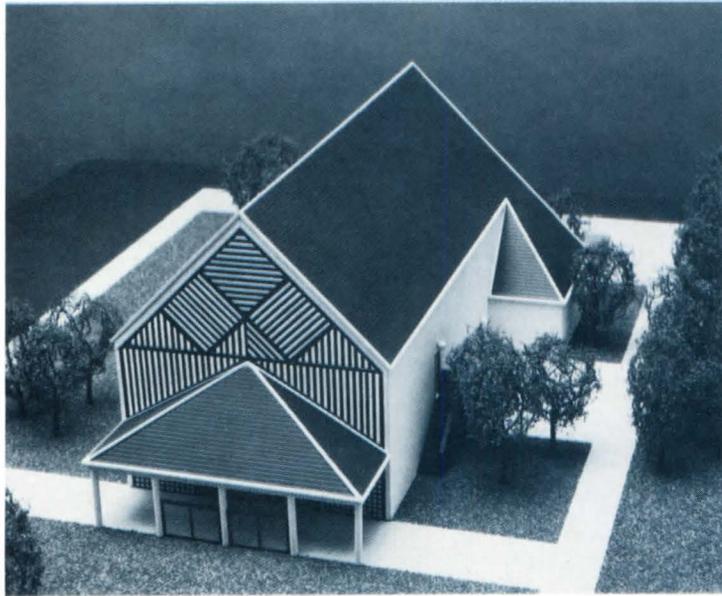
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Imperial Bronzelite architectural fountain system and underwater lighting installation at Charleston Town Center, Charleston, West Virginia. *Architects:* RTKL Associates, Inc. (Baltimore/Dallas) *Developer:* Forest City Development (Cleveland)

Barn again



Beyond the sprawl of the Pacific Coast megalopolis lies the "other" California—rural, traditional, resistant to change. One such place is the small foothill community of Kelseyville in Lake County, 100 miles north of San Francisco, where a proposed design for a new 270-seat community theater reflects both the architectural imagery of the area's indigenous barns and the modest financial resources of the

non-profit group formed to run the facility. Although the structure's board-and-batten walls and exposed interior roof trusses make up a consciously vernacular esthetic, architects Roland/Miller Associates have also sought to inject a dose of the theatrical by enlivening the street facade with an abstract pattern of black-and-white stripes and a string of white marquee lights along the fascia.

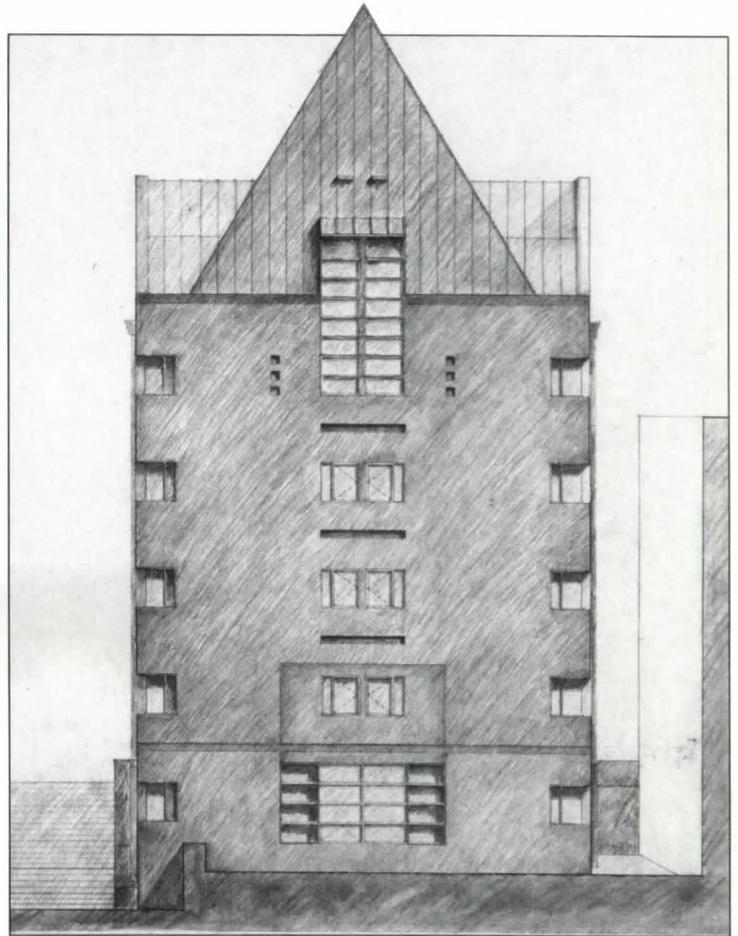
A classical quotation



After enduring every modernist architectural aberration from cylindrical residential towers to a corporate headquarters shaped like an inverted ziggurat, downtown Stamford, Connecticut, is about to get its first bonafide bit of postmodernism. Skidmore, Owings & Merrill has drawn up plans for Metro Center, an eight-story, 275,000-square-foot speculative office project whose granite and

concrete facade may represent a welcome revival of the city's more dignified architectural heritage. As SOM partner-in-charge David Childs explains it, "We chose to contrast with the modernistic silhouette of the new Stamford office buildings and return to a design that is more reflective of classical New England architecture." Inside, a decidedly up-to-date atrium will rise 90 feet to a rooftop skylight.

Mixed signals



Although designing a contemporary infill structure at a densely built-up university is never easy, it is especially vexing when the architectural context is the hallowed campus of Princeton University. For Feinberg Hall, a new 40-student dormitory that is part of Princeton's Wilson College residential complex, Tod Williams & Associates faced the dilemma of designing a building whose site lies

squarely between the early 20th-century neo-Gothic style of Walker Hall and the '60s modernism of 1937 Hall. The architects' solution: a 40-foot-square, five-story tower whose gabled roof and dark brick veneer represent a respectful bow to the adjacent Gothic structure, but whose sparsely detailed facade is an equally clear reference to the school's more recent architectural traditions.

A new waterfront project in The City by the Bay

The latest example of San Francisco's ongoing effort to lure residents and visitors to its downtown waterfront is a proposal to use Pier 3 as a base for a new 120,000-square-foot office building evocative of 19th-century maritime architecture and convert adjacent bulkhead structures into 50,000 square feet of retail, commercial, and museum space. Architects are Kaplan/McLaughlin/Diaz.



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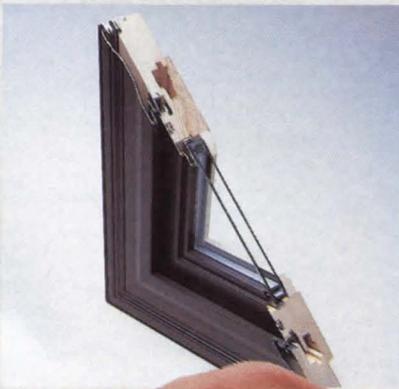
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*Test results for 48" x 64" Magnum Tilt-Turn.



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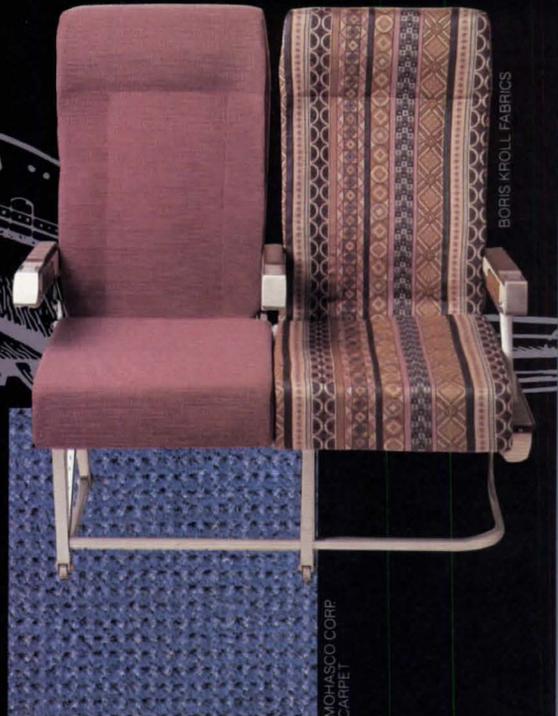


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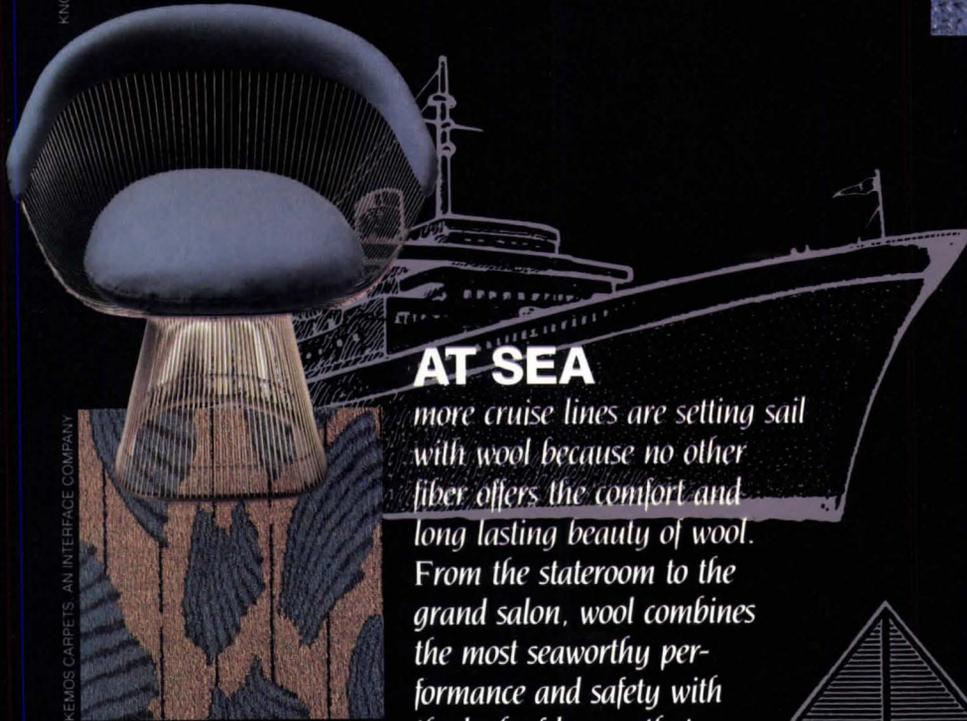
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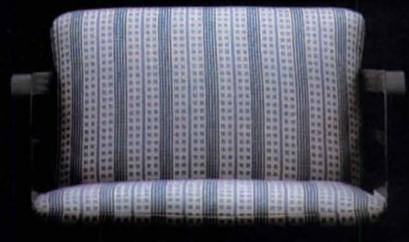
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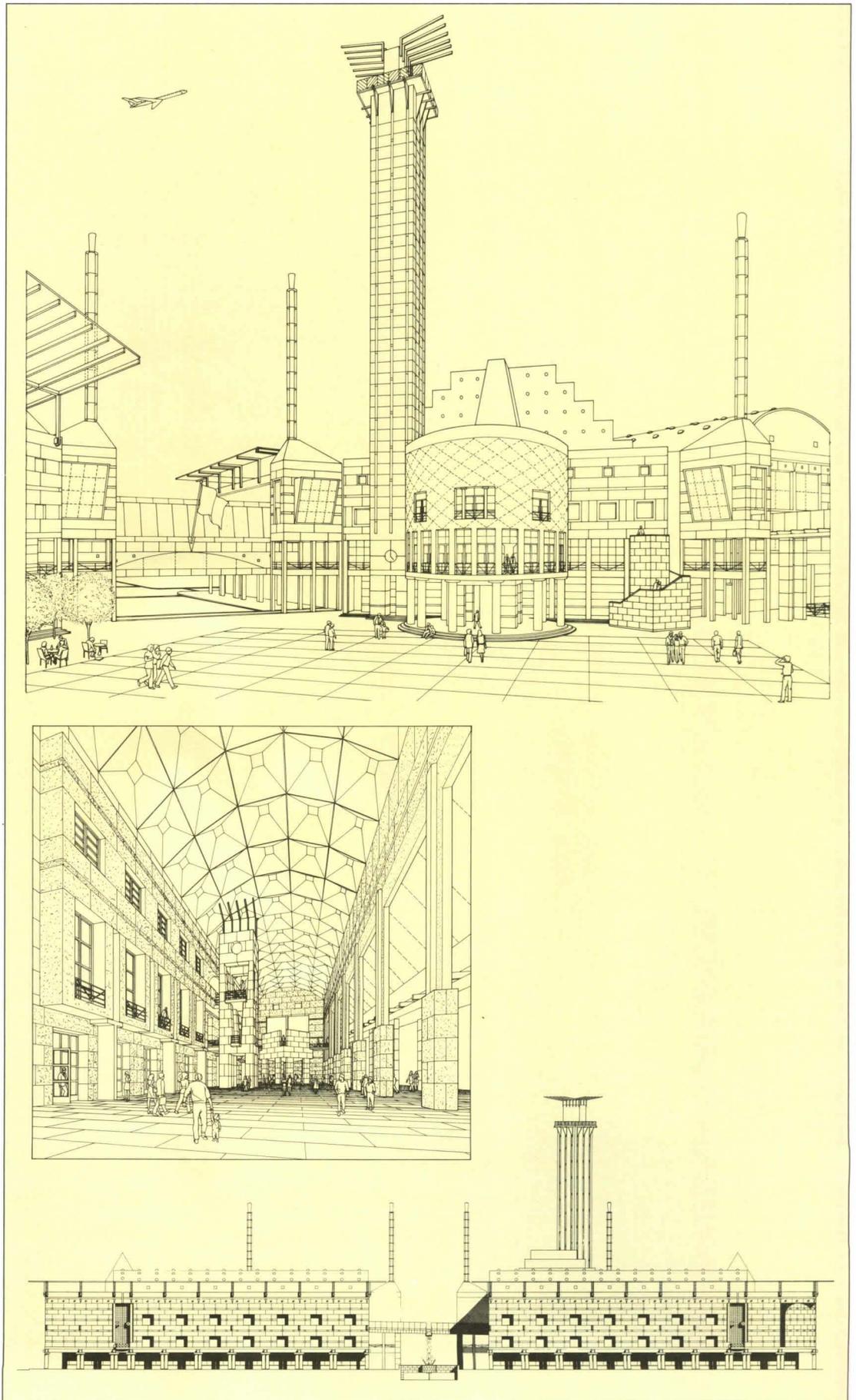
Design awards/competitions: Phoenix Municipal Government Center Design Competition

1. Premiated design:

Barton Myers Associates

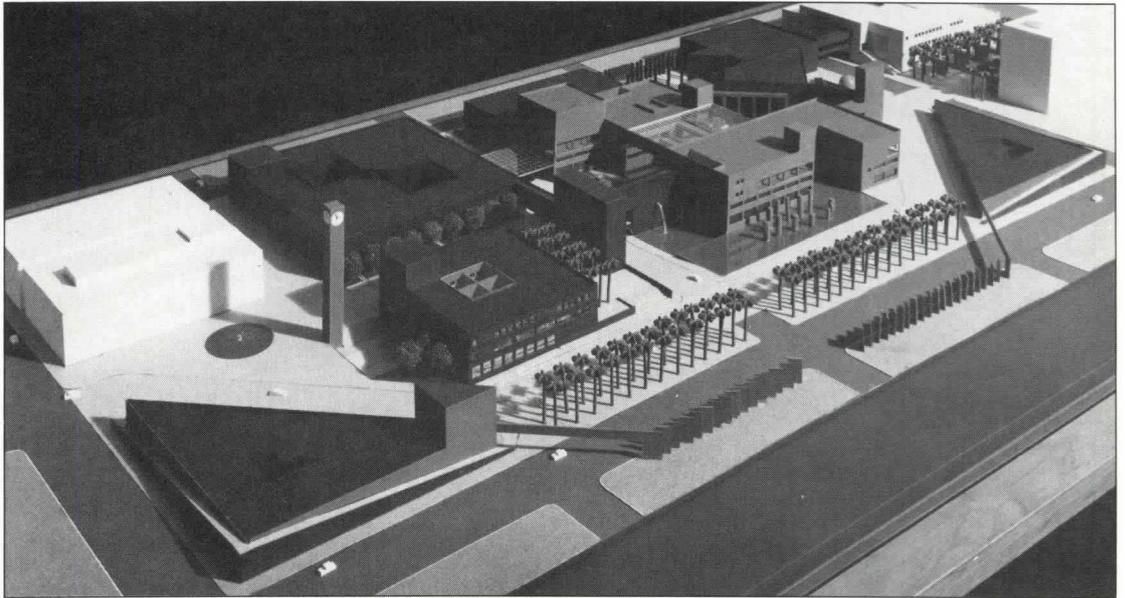
"Our master-plan concept embodies and expresses the Phoenix Municipal Government Center in the image of an open and dynamic democratic society in the American Southwest." Thus begins the project summary of Barton Myers Associates' competition entry and, given such lofty goals, it is hardly surprising that the winning scheme exhibits a panoply of civic and regional symbols deemed appropriate for a governmental center in a desert city. The focal point of the overall complex is a 300-foot-square civic plaza, located at the intersection of Washington Street and 4th Avenue, that is turned at a 45-degree angle to the rectilinear Phoenix street grid. Although public plazas or malls were significant components of all four final-round submissions, only Myers proposed a space that would be shared by pedestrians and automobiles—a feature that made local jurors a bit nervous but that Myers observes has been done successfully in many European cities. Fronted by loggias, the four first-phase buildings of the master plan will enclose the plaza (top drawing) and will be connected to future structures by gardens, shaded arcades and, most interestingly, a 1,650-foot-long aqueduct meant to evoke the irrigation canals that opened up Phoenix to settlement. Another obviously civic symbol in the Myers scheme is the 250-foot-tall Phoenix Tower, sited to terminate the diagonal Grand Avenue corridor leading into the city from the northwest and topped by a stylized gold-colored steel canopy that suggests the wings of the mythical Phoenix bird. In an apparent effort to infuse the complex with a strong measure of urban grandeur, Myers has incorporated two major interior spaces—the Great Hall of Justice and the Mayor's Court—into his scheme. The latter space (middle drawing) is a lofty multi-purpose hall crowned by steel trusses, wood coffers, and small skylights. Elevations and perspective views reveal that Myers's individual buildings, sheathed in a palette of red-brown and pink sandstone, will occupy something of a stylistic middle ground between the post-modernist classicism of Graves and Isozaki and the sleek modernism of Legorreta. While the stone cladding is a reference to the desert landscape surrounding Phoenix, a spiky filigree of net-covered steel cornices alludes to the architecture of Frank Lloyd Wright—a hybrid of textures and architectural motifs that one juror called a "safe" compromise for artistically conservative Phoenix.

Barton Myers of Toronto and Los Angeles has been selected from a field of 109 architects to design the new Phoenix Municipal Government Center and develop a master plan for a 12-square-block area east of, and on axis with, the Arizona State Capitol. The city's objective, according to the competition brief, was "to produce an inspired and significant architectural response that will become the 'Phoenix Style' and serve as a positive example to those who will build downtown." Toward that end the city solicited specific designs for a \$24.4-million building complex housing administrative, fire,



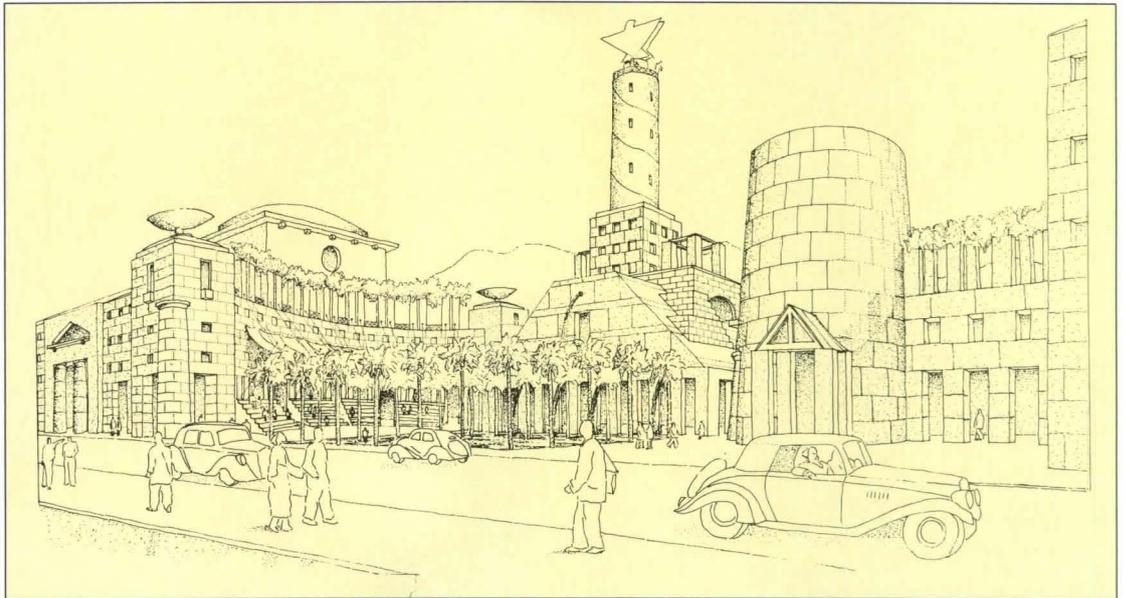
criminal justice, and water-management services, in addition to proposals for the future development of the overall site. The competition attracted a strikingly international group of architects, and the winning Myers scheme triumphed over finalists Michael Graves of the United States, Arata Isozaki of Japan, and Ricardo Legorreta of Mexico. We illustrate the four final-round submissions, selected by jurors David R. Johns (chairman), Dino DeConcini, David Gebhard, Sarah Grant, Charles Hill, Charles Jencks, Roger Schluntz, and Ron Warner.

2. Finalist: Ricardo Legorreta, in association with Leason Pomeroy Associates. The most radical aspect of the Legorreta/Pomeroy scheme—and a feature that some jurors felt might be unworkable—was a proposal to break Phoenix's rigid urban plan by angling Washington Street 45 degrees to the south and using the land that the street currently occupies for a series of traffic-free plazas. Water elements, covered arcades, and canopies of trees were intended to offer relief from the desert sun throughout the pedestrian areas. For the design of low-rise municipal buildings flanking the public space, the architects were alone among the finalists in eschewing references to any specific historic style; instead, they proposed a group of relatively neutral, modernist structures sheathed in red and yellow ochre sandstone veneer.



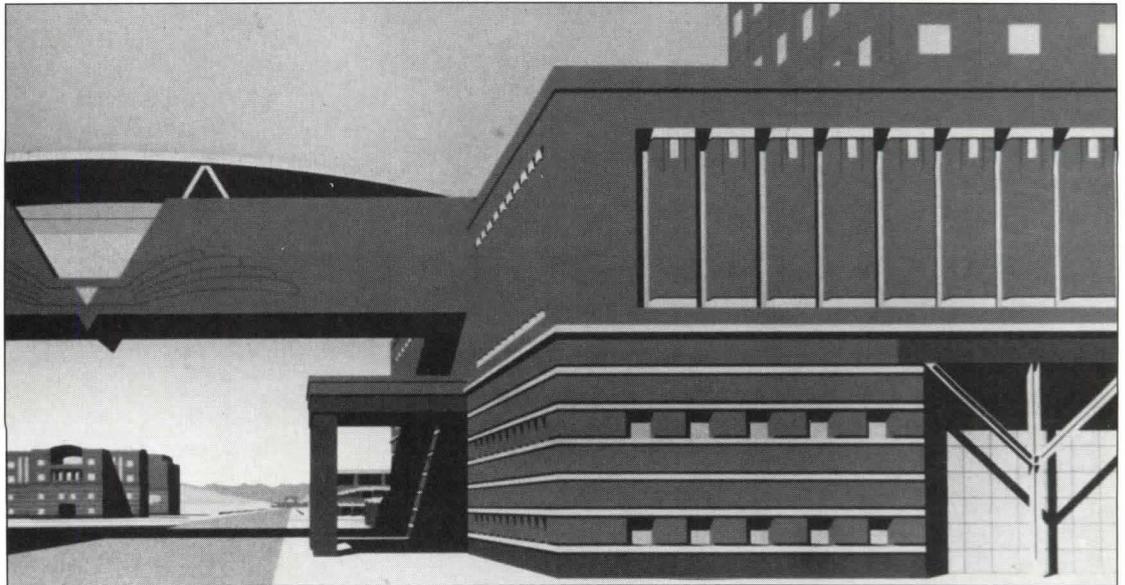
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3. Finalist: Michael Graves, in association with GSAS Architects/Planners. Not unpredictably for an architect whose work is heavily laden with symbolism, Graves's scheme exhibits gestures toward Arizona's Indian and Spanish Colonial cultures, references to the mythical bird that gave Phoenix its name, and an urban design plan meant to underscore American participatory democracy. Like many other competitors, Graves organized four major government structures around a civic square located at the intersection of Washington Street and 4th Avenue. This building ensemble is clad in a variety of stone finishes and boasts such classical details as copper urns, pergolas, loggias, and fountains—elements that the architect calls "natural and intrinsic to urban structure in general and the city of Phoenix in particular."



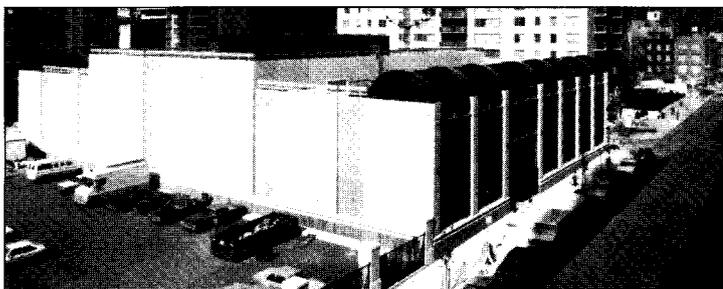
3

4. Finalist: Arata Isozaki & Associates, in association with Gruen Associates. Buildings clad in vivid red sandstone with rusticated limestone bases, a "city gate" framing the vista of the State Capitol down Washington Street, and a two-block-long sculpture garden embellished with desert landscaping are three aspects of a design that the jury praised as the most challenging of the four final proposals, but ultimately abandoned as "too great a risk." In addition to obligatory facilities for municipal agencies, housed in buildings whose terra-cotta tile decoration owes much to the so-called Pueblo Deco style of the 1920s and '30s, Isozaki added to his scheme the Phoenix Pavilion, a ziggurat-like art center that draws its inspiration from the stepped dwellings of nearby Indian settlements.



4

Prestressed Concrete Institute 1985 Awards Program



1 *Allan Shindler*



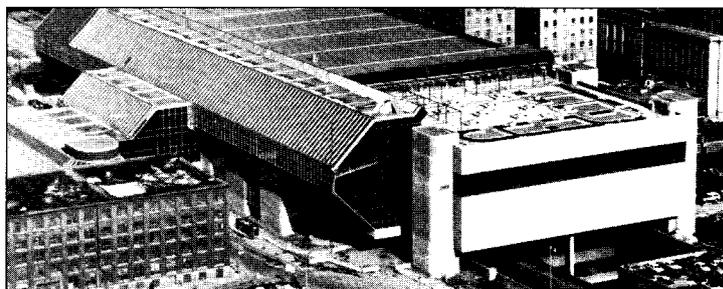
2 *Steven Brooke*



3 *©Steve Rosenthal*

1. Consolidated Edison 40th Street Substation, New York City; Beyer Blinder Belle, Architects; Consolidated Edison of New York, Structural Engineers. The challenge for the architects was to integrate an electrical substation into a high-rise residential neighborhood in midtown Manhattan. The solution was to vary the texture and color of precast concrete panels in order to reduce the windowless structure's apparent bulk. The jury praised the building for exhibiting "an infinitely higher level of care and design consideration than one would expect in this type of project."
2. Broward County Main Library, Fort Lauderdale, Florida; Gatje Papachristou Smith and Miller & Meier & Associates, Joint Architects; Weidlinger Associates, Structural Engineers (RECORD, August 1985, pages 98-101). Constructed entirely of structural

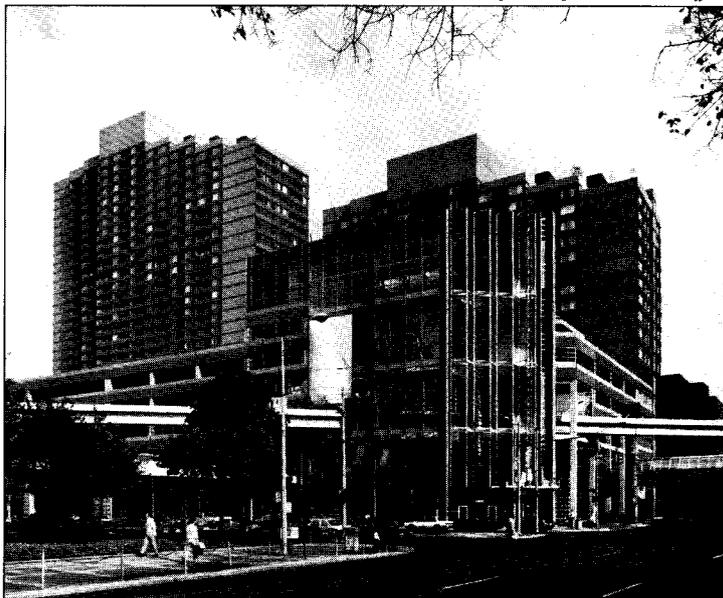
prestressed concrete, an eight-story downtown reference library was characterized by the jury as "a total building . . . where the architects have used the precast concrete as both the architectural expression and the structural system. The solids that form the street side are very strong and consistent."
3. Whitehead Institute, Cambridge, Massachusetts; Goody, Clancy & Associates, Architects; Zaldastani Associates, Structural Engineers. The architects clad this biomedical research institute with smooth and exposed aggregate precast panels. Reveals, sills, spandrels, and soffits were all cast directly into the panels, thereby minimizing on-site fabrication. The jurors were especially impressed by the high quality and coloration of the architectural precast, which they felt gave the structure the appearance of solid masonry.



4 *Guy Schiele*



5 *©Timothy Hursley/The Arkansas Office*



6 *Daniel Bartush*

4. Montreal Convention Center, Montreal, Quebec; Victor Prus; LeMoynes & Associés; Labelle, Marchand, Geoffroy; and Hebert & Lalonde, Joint Architects; Martineau, Vallée et Deslauriers, Mercier, Structural Engineers. More than 500 prestressed concrete components and 48,000 square feet of architectural precast were used to complete this large convention center, which is built over a downtown Montreal expressway. The jury praised the building as an especially good example of precast concrete used both structurally and architecturally.
5. IBM Field Engineering and Training Center, Atlanta, Georgia; Cooper Carry & Associates, Architects; Bennett & Pless, Inc., Structural Engineers. This facility was meant to establish a new image for a division of IBM that had previously been housed in

warehouses and factories. A fast-track construction schedule dictated the use of architectural precast concrete as a cladding material both on the exterior and on interior public spaces. "Very well done," said the jury. "A nice integration of site and building."
6. Robert L. Millender Center, Detroit, Michigan; The Ehrenkrantz Group, Architects; Ohlin & Higgins and Williams & Hach, Structural Engineers. Constructed entirely of prestressed concrete components, a mixed-use development in downtown Detroit comprises a 32-story apartment tower, a 20-story hotel, an 1,850-car garage, and 38,000 square feet of commercial space. The architects introduced color and texture into the project by mixing red granite aggregate into the precast concrete spandrel panels—a decision that the jury felt was especially fortuitous.

In its 23rd annual design awards program, the Prestressed Concrete Institute cited architects and engineers of nine buildings and three bridges completed within the last three years for their esthetic, functional, and economical use of precast, prestressed concrete. We illustrate this year's PCI award winners, selected from 152 project submissions by jurors R. Bruce Patty, FAIA, president of the American Institute of Architects and principal in the firm of Patty Berkebile Nelson Associates; Brian E. Eldred, MRAC, president of the Royal Architectural Institute of Canada and principal in the

firm of Eldred Barr Architects; Wayne Henneberger, bridge engineer for the Texas Highway Department; Richard W. Karn, president of the American Society of Civil Engineers and principal in the firm of Bissel & Karn; and Gerald Horn, FAIA, partner in the firm of Holabird & Root.



7 Fiona Spalding-Smith



8 Martin Cole



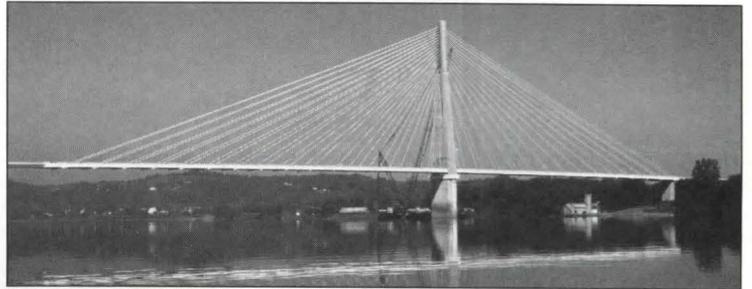
9 John Gaylord

7. TransAlta Utilities Corporation, Calgary, Alberta; J. H. Cook, Architects and Structural Engineers. For a major corporate headquarters expansion, the architects selected precast concrete in order to match the finish of existing buildings on the site. The material also responded favorably to other client concerns—namely solar and noise protection and the development of an effective rain-screen wall system. The jurors singled out the articulation of joints between the panels for special praise. “A good, solid job,” they concluded.

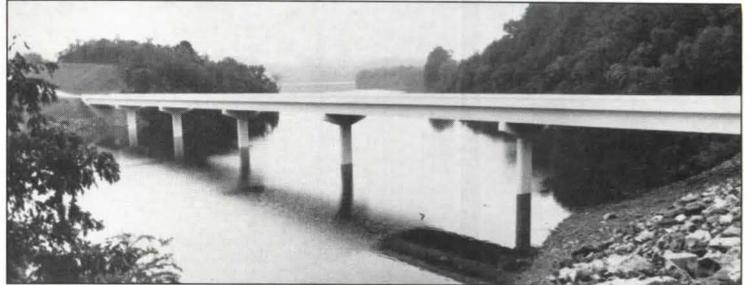
8. Denver Technological Center Parking Garage, Englewood, Colorado; C. W. Fentress and Associates, Architects; KKBNA, Inc., Structural Engineers. For a parking garage located in an office park near Denver, the architects utilized an internal ramp system that allows

the structure's exterior to continue the unbroken horizontality of nearby commercial buildings. The jury called the garage “an elegant building [that] demonstrates a greater level of care and concern in its design than one would normally expect for this type of structure.”

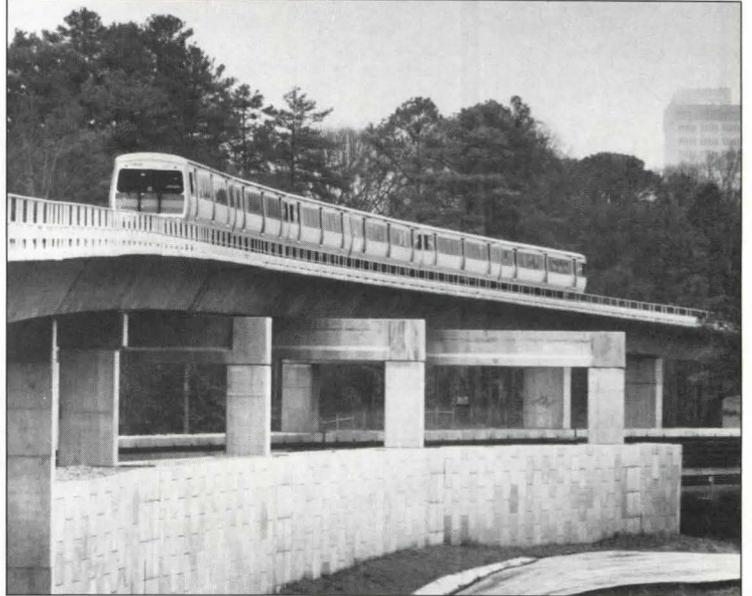
9. Angelus Plaza, Los Angeles, California; Dworsky Associates, Architects; John A. Martin & Associates, Structural Engineers. Located on a sloping 4.6-acre site in downtown Los Angeles, this residential project for the elderly encompasses 1,093 one-bedroom apartments in four precast concrete high-rise buildings and a five-story mixed-use structure. The jury particularly liked the project's “total community concept, the variety of units, and the idea of being in either high-rise or low-rise buildings.”



10 Arvid Grant & Associates



11 George Hornal



12 Ray Stanyard

10. East Huntington Bridge, The Ohio River between Huntington, West Virginia, and Proctorville, Ohio; Arvid Grant and Associates, Structural Engineers. A segmental cable-stayed bridge has four spans totaling 1,966 feet in length. Although 608 feet of the bridge were built in the cast-in-place cantilever method, the remainder was assembled from precast prestressed concrete components. “A handsome bridge,” said the jury. “The approaches are handled well and integrated with the bridge. Close up, it is very masculine, but over-all it's delicate in the landscape.”

11. Austin Springs Road Bridge, Washington County, Tennessee; Tennessee Department of Transportation, Structural Engineers. A 607-foot-long, precast concrete box beam bridge soars 64 feet above the Watauga River.

“We all appreciated this clean, simple, and straightforward bridge,” said the jury. “It appears to work well with the landscape, [and] its prestressed concrete construction minimizes damage to the surrounding area. It looks as if it would be a joy to drive on.”

12. MARTA Rapid Transit Bridges, Atlanta, Georgia; Figg and Muller, Structural Engineers. The engineering challenge: to construct a major new rail mass-transit system through a congested area while minimizing traffic disruption. The solution: the use of precast concrete segmental technology and an innovative erection truss system that allowed vehicles to move alongside and underneath the project during construction. “The jury called the project “beautifully done—a large, sweeping line cut through a significant piece of landscape.”



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Architects and Firms: A Sociological Perspective on Architectural Practice, by Judith R. Blau. Cambridge: The MIT Press, 1984, \$19.95.

Architect? A Candid Guide to the Profession, by Roger K. Lewis. Cambridge: The MIT Press, 1985, \$17.50 (\$9.95 paperback).

Reviewed by Robert D. Perl

Although most architecture books deal with design, history, or practice, two recent books explore the sociological and psychological experience of architects and offices. The first is a scholarly study conducted from outside the profession; the second concentrates more on the "feel" of the profession from an insider's point of view.

Architects and Firms: A Sociological Perspective on Architectural Practice is the result of extensive surveys and interviews conducted in 1974 with architects working in New York City. The author, Judith R. Blau, is an associate professor of sociology at the State University of New York in Albany and a research scholar at Columbia University's Center for the Social Sciences. Blau randomly selected 152 architecture firms from the Manhattan telephone directory, and more than 400 architects in those firms participated in the study. The author gathered updated data from many of the same firms in 1979.

At the outset of the study, Blau established "seven indicators of the firm's effectiveness as a professional organization and its economic efficiency." These criteria include the number of design awards received from 1969 through 1973; an evaluation of the firm's work by the faculty of architecture schools in New York City; client repeat rate; client referral rate; profitability, which Blau defined as the percentage of projects from 1969 through 1974 with construction costs of at least \$1 million; productivity, defined as the number of projects completed in 1973; and staff commitment, defined as "satisfaction with work and career."

Central to Blau's measure of staff commitment is an acceptance of the "architecture as art" ideology. Architects having "a strong identification with the user-oriented ideology . . . were treated somewhat suspiciously." The author states further that "architecture is increasingly defined as important only insofar as it is art. Art excluded, architecture is in disassembly."

The book contains pages of fascinating data. On a questionnaire with the names of 50 various architects whom the respondents were asked if they "knew" and if they "liked," 100 percent knew and 95 percent liked LeCorbusier; 86 percent knew and 78 percent liked Kenzo Tange; 54 percent knew and 49 percent liked James Stirling; and 40 percent knew and 25 percent liked Frederick Kiesler. The respondents were also asked to evaluate 36 statements about architecture. Ninety-five percent strongly agreed or agreed that "good buildings must relate to their environment;" 80 percent agreed with the statement "form follows function," while 38 percent supported the statement "monumentality is still a virtue."

During Blau's interviews with firm principals, 69 percent of those questioned mentioned financial success as part of the firm's agenda. Thirty-seven percent observed that design should adhere to the esthetic objective, but only 13 percent said that the project should contribute to architectural thinking. In the course of her study, Blau identified many curious correlations. For instance, there was a significant positive correlation between firms that won awards and those that used consultants. There was also a

strong positive correlation between firms winning awards and being organized as affiliates, rather than as corporations or partnerships. Although Blau rarely explained these links, those explanations that were given are intriguing. For example, there was a positive correlation between award-winning firms and those with enlightened personnel policies. Interviewees stated that the increased job security and clear recruitment guidelines raised morale. There was a negative correlation between award-winning firms and the client repeat rate. Blau suggested that while corporate clients seeking the lowest-cost project tended to use the same firm over and over again, those interested in unique statements used different firms.

In chapter six, "The Dialectics of the Marketplace," Blau analyzed data from 1974 with data collected in 1979. Ninety-two of the original 152 firms had outlasted both the national recession and New York's fiscal crisis. The analysis examined many factors and differentiated among those firms that had merely survived and those that had increased profits or productivity. Inconclusively, however: "The havoc created by the economic recession totally disrupted any natural selection process that may have been operating during normal

times, and no type of office or characteristic of office carried advantages for ultimate survival."

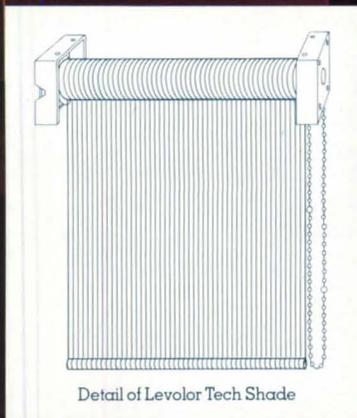
Although the author carefully explains the study's methodology, several problems are apparent. The number of awards won by a firm is a questionable measure of quality, and Blau's definitions of profitability and productivity seem arbitrary. Moreover, it is difficult to know what Blau means by treating some respondents "suspiciously," since there are many valid approaches to architecture. Blau assumed that the 39 percent of the firms which could not be located in 1979 had failed financially due to the recession, but she offered no data to justify that claim. Finally, Blau's emphasis on statistics encouraged attempts to link possibly unrelated factors, and her approach ignored certain immeasurable characteristics.

It is just those immeasurable characteristics that Robert K. Lewis emphasizes in *Architect? A Candid Guide to the Profession*. Lewis offers the insider's view as an architect and an associate professor at the University of Maryland School of Architecture. Directed at prospective students of architecture and others curious about the profession, the book shatters the romantic image of the architect formed by such fictional



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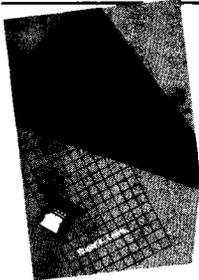
Robert D. Perl is an associate professor of architecture at Texas Tech University.



Detail of Levolor Tech Shade

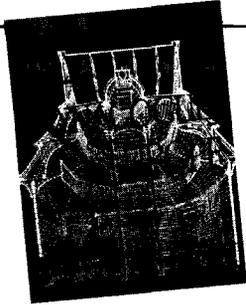
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Architects and Firms
A Sociological
Perspective
on Architectural
Practice

Judith R. Blau



accounts as *The Fountainhead* or *The Towering Inferno*.

The first two chapters examine the reasons one should or should not be an architect. Lewis discusses economic and social issues, and he describes the implications of competition, envy, talent, and dedication. These chapters offer a balanced view of the profession and explain some of the satisfactions and disappointments. The next five chapters cover various paths to becoming an architect. The author reviews the merits of different degree programs and provides insight into the experience of architecture school. Professors are discussed and 16 types described. Reading of *The Good Ol' Boy*, *The Obfuscator*, *The Inscrutable*, and *The Natty Dresser* brought back fond memories of teachers I had and images of several fellow faculty members at Texas Tech.

A section entitled "Some -isms and -ologies" gives the student and practitioner alike reasonably clear views of current issues in architecture. The last five chapters explain what it means to be an architect. Lewis elaborates upon the roles of architects, how they work, how they get work, and client concerns. Perhaps the most fascinating chapter is "Architects as Types." Here, characteristics of *The Highborn*, *The Artiste*, *The Prima Donna*, *The Intellectual*, *The Critic*, *The Down-to-Earther*, *The Anal-Compulsive*, *The Plodder*, *The Social Worker*, *The Fantasizer*, *The Manager*, *The Entrepreneur*, *The Hustler*, *The Joiner*, *The Poet-Philosopher*, and *The Renaissance Person* are described. Most architects are combinations of these types, and it is easy to recognize characteristics and assemble hybrids for colleagues and oneself.

Taken together, these two books offer a comprehensive overview of the profession of architecture. Blau's observations primarily concern a few aspects of office structure and practice. Although the data were carefully compiled and analyzed, false assumptions and procedural errors mar the study. As an architect and teacher, Lewis offers insights that are personal, complex, more comprehensive, and much more easily read. He is explaining his "bittersweet" experience in the profession he (usually) loves. Even though it misses the subtleties and feelings of the profession, *Architects and Firms* is recommended to those interested in a scholarly study of office politics and client interaction. *Architect?* is recommended for students, practitioners, clients, and spouses because it captures and communicates those same subtleties and feelings.

Synagogues of Europe, by Carol Herselle Krinsky. Cambridge: The Architectural History Foundation with The MIT Press, 1985, \$50.

Reviewed by Barry Bergdoll

Every year brings us another version of "The Cathedrals of Europe," but until Carol Krinsky set out to document the synagogues of Europe, the scholar was as hard put to find a history of these buildings as the tourist would be to locate more than a handful of surviving examples in Europe's capitals. This exquisitely illustrated and researched chronicle rescues a lost architectural tradition—lost not only because the majority of the more than 100 buildings described here were brutally destroyed or allowed to fall into disuse by the ravages of Nazism, but also because the synagogue has been largely ignored by architectural historians. Jewish historians have of course always been interested in these buildings, and there have been several recent books on prominent synagogues in New York City. But as Professor Krinsky's copious bibliographies attest, before her pathbreaking work the architectural history of European Jews was scattered through specialized journals, often difficult to find and rarely in English. Her book is a monument to scholarship and a moving evocation of a lost world. Most of the buildings presented will be discoveries for both architects and historians.

Not that these are unattractive or insignificant buildings. The photographs alone reveal that even the humblest early synagogues have great dignity and evocative power. By the mid-19th century many synagogues were among the most prominent and elaborate buildings in Europe's expanding cities. Nor can a catalog of selected examples that includes buildings by Gottfried Semper, Peter Behrens, Hector Guimard, Josef Hoffmann, Otto Wagner, and Erich Mendelsohn fail to attract a broad range of architectural interests. With such names as these, how is it possible that so few of the buildings have an honored place in architectural history? Krinsky offers several answers in a brisk 100-page text in which she introduces the liturgical and ritualistic requirements of a synagogue and summarizes the historical development of both practice and buildings from antiquity to the post-World War II period. The bulk of the book is taken up with individual histories and descriptions of some 100

Barry Bergdoll teaches art history at Columbia University.

examples from all periods and from places as far-flung as Dubrovnik and Belfast, Toledo and Moscow.

The relative modesty of many early synagogues stems partly from the very nature of Judaism, and partly from imposed or perceived social sanctions. Intellectually inward-looking and devoid of a missionary vocation, Judaism has been indecisive, at times almost indifferent, about establishing a precise form for the synagogue. The word "synagogue" itself, Krinsky notes, refers primarily to a congregation and only by extension to a place; any place where a minyan can assemble may serve as a synagogue. While every synagogue is in a sense a substitute for the original Temple of Jerusalem, it was not until the 19th century that any attempts were made to evoke that primordial temple in the synagogue's form or decor. Jewish liturgy requires little of the elaborate space or accouterments called for in Christian ritual. The major differences in layout are determined by the relative position and importance of the bema and ark in Sephardic and Ashkenazic practice and by responses to innovations introduced by the 19th-century Reform movement. The Talmud itself establishes no more than the most general guidelines—open to considerable interpretation—for the physical setting of worship.

But more important than any such religious determinants are the delicate issues of the Jew's changing social position and identity. Before the 19th century, Jews were either forbidden or understandably reluctant to build in prominent locations. Many synagogues were discreetly constructed in courtyards, and almost all sought a deliberately restrained architectural expression. Even buildings with splendid interiors—the medieval synagogues of Toledo, for example—maintained a respectfully demure exterior. During the 19th century, as Judaism was legalized or tolerated in nearly every European state, the situation changed radically. The 19th-century synagogue "building boom" (more than 1,000 were constructed in Europe between 1800 and 1900) was a mirror of the changing relations of an important religious minority to dominant Christian society. The problem of style, always so thorny for 19th-century architects, was especially troublesome for Jews torn between assimilation and the "privilege" of openly declaring "difference." For instance, to adopt a neo-Moorish style was to declare proudly the distinct heritage of Judaism and to evoke either the Eastern origins of the faith or its flourishing in

medieval Spain. Many congregations, however, particularly those that followed the Reform movement, were eager to build a monument to assimilation by embracing one of the popular architectural modes of this eclectic period. It is perhaps here that the historian is most challenged in discerning a synthetic overview as the synagogue emerges from the shadows to take its place in an architectural choreography of dizzying complexity. Not only was Judaism rocked by the issues of reform and assimilation, but rarely has architecture known a period of such widespread stylistic debate. Nor were Christians altogether clear on whether they preferred Jews to be assimilated or clearly demarcated. All of the ambiguities of social relations and psychologies were inevitably reflected in the stylistic imagery selected.

The issue is further complicated by the fact that many congregations were forced, or chose, to turn to Christian architects to give form to their aspirations and public image. Some of these men had ardently held views on what a Jewish architecture should be, as Krinsky herself notes in discussions of Semper's work in Dresden, that of Ludwig von Forster in Vienna and Budapest, and of the Jewish architect and writer Albrecht Rosengarten, architect of synagogues in Kassel and Hamburg and a widely read (and translated) theorist on issues of style, history, and building materials. The vibrant discussion in the mid-19th century over the origins of Jewish architecture among archaeologists and historians—Christian and Jewish alike—is an issue largely ignored here that would clarify the historicist intentions of these most diverse buildings. It is a shame that theoretic speculations could not have been given more attention, all the more because it was evidently from these central European milieux that many of the congregations and architects of America's late 19th-century synagogues had emigrated.

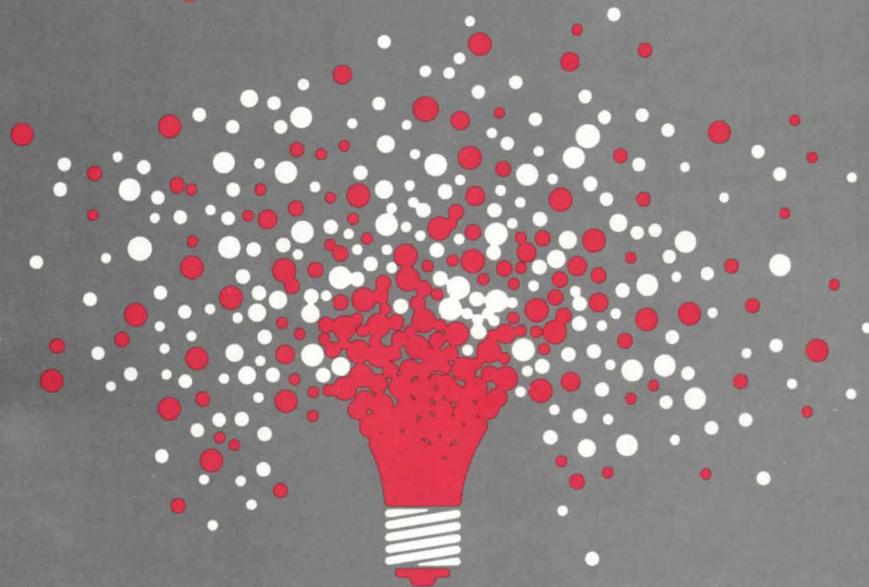
But this is already well beyond the scope of Krinsky's monumental undertaking, and it might seem churlish to criticize a book that overwhelms us with its discoveries and lucid synthesis. No one will ever again look at a synagogue as simply a testament to the persistence of faith even in the most adverse circumstances. Krinsky has opened our eyes to viewing them as complex cultural documents shaped often by the most contradictory impulses. The range of her scholarship and considerations is the very making of architectural history as cultural history.

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In the national interest: A new building museum opens in Washington, D. C.

By Paul M. Connolly

After years of uncertainty, the National Building Museum, the first museum dedicated to America's building arts, officially opened with great fanfare in late October of last year. The museum appropriately occupies the recently restored Pension Building, a century-old landmark in Washington, D. C. The inaugural exhibition, entitled "Building a National Image: Architectural Drawings for the American Democracy, 1789-1912," surveys how federal buildings have reflected our political ideals and indicates the present soundness and potential achievement of the museum's programs.

The museum encompasses the fields of construction, engineering, architecture, planning, and such building crafts as metalworking and stonecutting. Although exhibition programs at existing institutions have periodically dealt with one or more of these areas, there has long been a need for a comprehensive showcase and historical record of the man-made environment in a single museum. Bates Lowry, the museum's director and former director of the Museum of Modern Art, believes that increasing public awareness of the American-built environment is the key goal of the new museum. "If we do for buildings what the environmentalists have done for trees, we will be doing a good job," he commented. Toward that end the museum has laid the groundwork for a number of programs that are just beginning to attain national visibility. Since its inception in 1980, the institution has produced short films and traveling exhibitions, started an educational outreach program, and developed a computer data bank for information on building technology.

The museum could not have found a more fitting home to raise the public's awareness of America's building heritage. The Pension Building's Great Hall, which is longer than a football field and contains the world's tallest Corinthian columns, exemplifies the ability of architecture to uplift everyday human activity. Not surprisingly, this exhilarating space has been the site of 10 presidential inaugural balls.

Not only is the building inspirational, but it is also an edifying case study of American architectural instincts. Designed in 1881 by Montgomery Meigs to provide a modern office environment for the expanding Pension Bureau, the huge red-brick building is a quintessential product of an era when the application of the machine to architecture

generated an indigenous American expression. Meigs, a self-educated architect and visionary engineer, derived the building's plan and facade from Michelangelo's Palazzo Farnese, and its interior gallery arcade from Bramante's Cancellaria. Yet he added to this Renaissance-inspired design a gabled iron-framed roof, thermal-pane windows, and an advanced heating and ventilation system. This combination of classical design and Industrial Age technology has not resulted in a refined masterpiece, but, rather, an eccentric, distinctly "American" landmark.

The Pension Building is being sensitively restored by Keyes Condon Florance of Washington and Giorgio Cavaglieri of New York. The first stages of restoration are complete, providing enough space for the museum's initial programs. By 1988, major structural and mechanical rehabilitation should be finished. Renovation began in 1983 when the deteriorated two-acre roof was replaced and painted the sky-blue color that Meigs had intended. The facades have been thoroughly cleaned, reviving the rich textures of the burnt-red brickwork, and eight ground-level perimeter offices have been congenially converted into gallery space. The only exception to an otherwise thoughtful restoration is the museum administration's garnishment of the Great Hall. The magnificence of this space has been diminished somewhat by carnival-like pinpoint lighting along the arcades and an overly decorative color scheme of olive green and rose for the interior walls.

In addition to the over-all excellence of the building restoration, the National Building Museum is off to an auspicious start with its exhibition program. Unfortunately, there are not yet any permanent exhibits that present a broad overview of America's building heritage; however, the opening shows do succeed in creatively addressing a variety of topics within the broad spectrum of America's building arts. A show on the metalsmith Samuel Yellin, for example, displays the sophisticated yet utilitarian work of a master craftsman, while an exhibit on the Brooklyn Bridge focuses on the engineering achievements of John and Washington Roebling.

The major inaugural exhibition, "Building a National Image: Architectural Drawings for the American Democracy, 1789-1912," sponsored by United Technologies and on view until February 2, comprises 80 remarkable drawings of federal buildings. Margaret Denton Smith, the show's curator,

Top two photographs show the Renaissance Revival facade and Great Hall of the former Pension Building, site of the new National Building Museum in Washington.

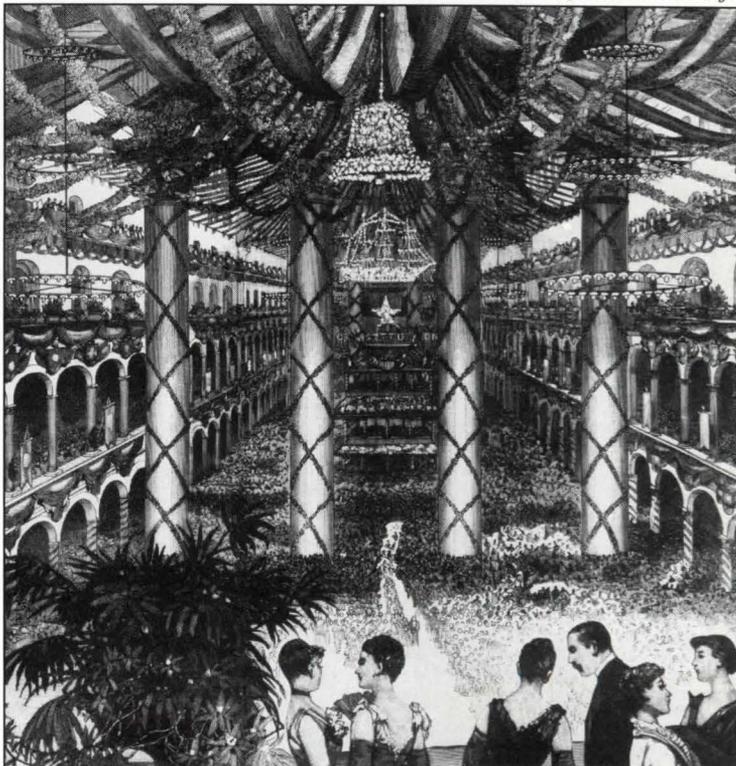
A newspaper illustration (bottom) depicts the hall bedecked for the inaugural ball of President Benjamin Harrison in 1889.



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Private and Open Office Environments

and Bates Lowry, author of the accompanying book, do not didactically compress the diverse history of federal architectural design into an orderly framework. Instead, the exhibit consists of a series of vignettes, ranging in topic from the White House to small-town post offices, which explore this country's search for a national style.

Throughout the course of America's first 125 years, politicians, government administrators, and citizens were concerned with how their buildings should appear, since they strongly believed that the proper type of architecture could appreciably benefit society. Federal officials did not see architecture solely as a means to project central authority in the capital city. They also believed that distinctive courthouses, mints, custom houses, and post offices had a democratizing capability when erected in towns and cities across the country. Accordingly, the federal government called for and, as the exhibit testifies, received high-quality public architecture. This attention to design was carried over to the renderings, whether of an incredibly detailed cross-section of the Capitol dome or of subtly hued ornamental roof detailing for the U. S. Courthouse in Covington, Kentucky. The exhibition is particularly instructive in the present age of mediocre civic buildings that convey an impression of the federal government's detachment from the populace.

While there was a consensus during the 19th century over architecture's capacity to symbolize the nation's dignity and democracy, much debate took place over what style would be most appropriate. The exhibition richly documents the esthetic evolution of government architecture, though its message might have been more complete if it had shown the relationship of federal styles to contemporaneous trends in the private sector.

During the nation's early years, the Founding Fathers maintained that the Greek classical style captured the American ethos. Thomas Jefferson vigorously promoted classicism and was the guiding force behind the nation's early federal architecture. His vision greatly influenced the design of the Capitol, the White House, and the first generation of smaller federal buildings throughout the country, many of which were straightforward adaptations of the Greek temple form.

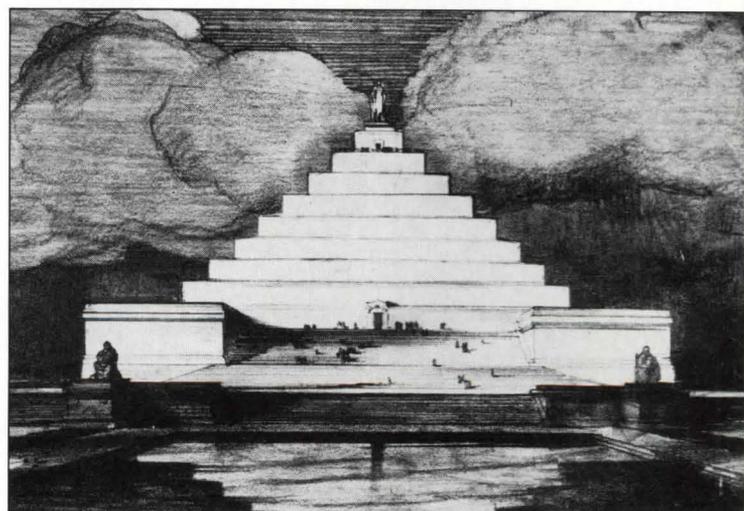
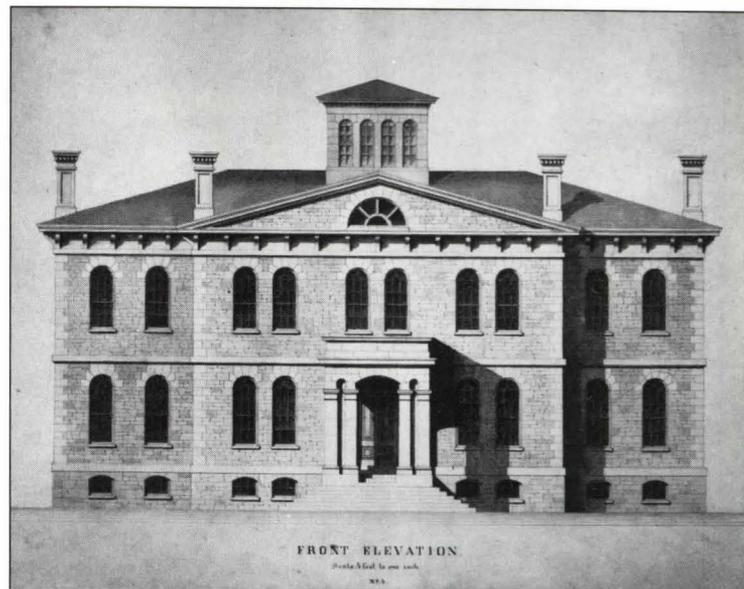
By the mid-century, however, many began to question a strict adherence to the rational and orderly classical style. A complex set of factors, including the high

turnover rate in the Office of the Supervising Architect, led to a flourishing period of eclecticism. The 16-year search for a design for the Library of Congress epitomizes this lack of agreement over style, and the show includes delightful German Renaissance, Victorian Gothic, and French Second Empire versions that Congress considered before finally approving an Italian Renaissance design in 1889.

If Jeffersonian classicism was self-consciously embraced to express the ideals of a fledgling republic, it was Beaux-Arts classicism—triggered by the buildings of the 1893 Chicago World's Fair—that exemplified the hubris of a mature nation entering the 20th century. This monumental style prevailed during the "completion" of Washington, D. C., according to L'Enfant's original grand scheme. Accordingly, Henry Bacon's 1912 neoclassical design for the Lincoln Memorial was easily chosen over John Russell Pope's exotic ziggurat-shaped proposal. Although the exhibit reveals that the quest for a single national style during the 19th century was never fully resolved, it also shows how the recurring classical vision became entrenched, especially in Washington, as a tediously uniform federal architectural mode during the first half of this century.

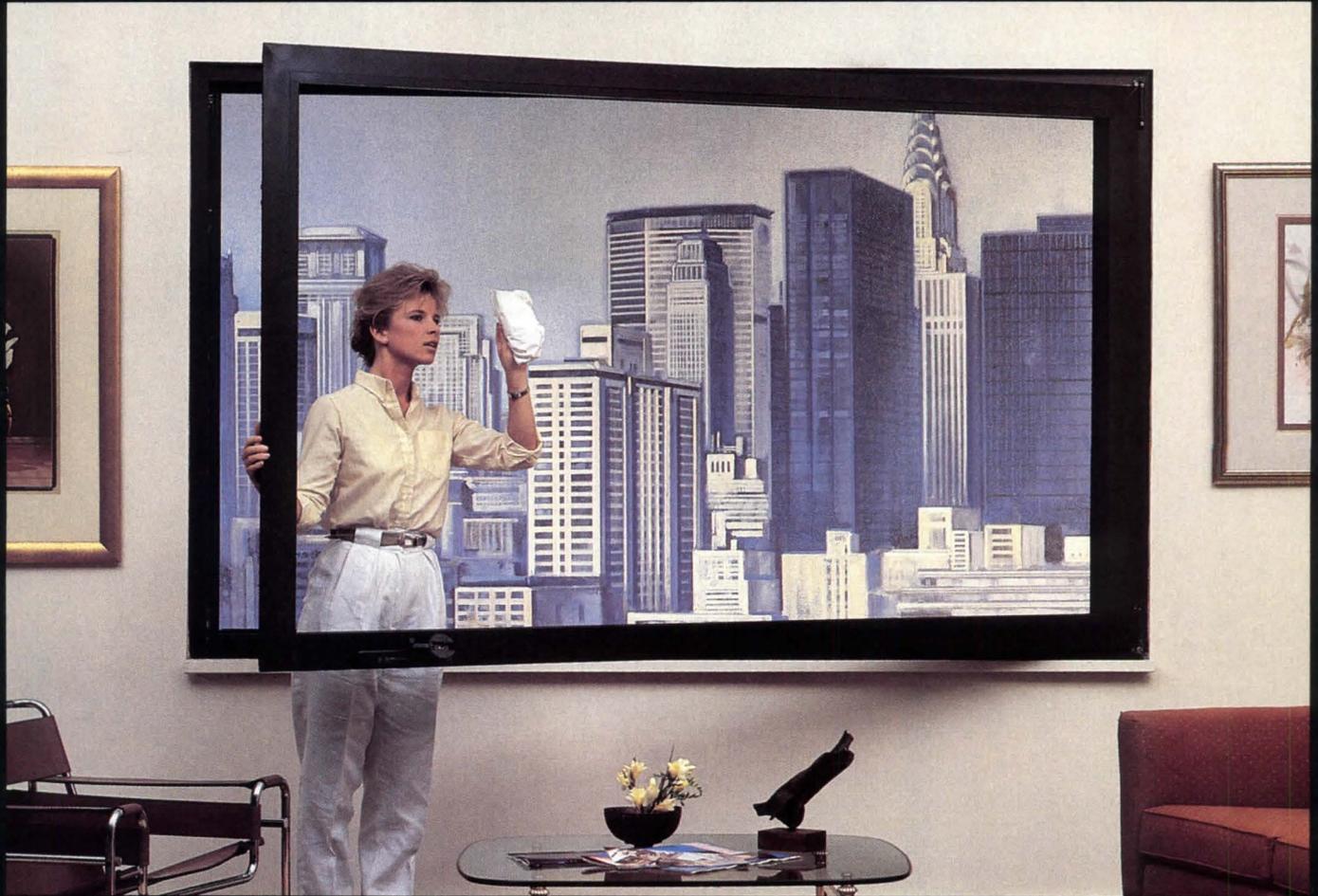
In 1842 Charles Dickens labeled the incomplete Washington, D. C., "The City of Magnificent Intentions." In 1986 the National Building Museum might well be called "The Museum of Magnificent Intentions." Despite the institution's ambitious goals, it must operate its programs cautiously on a shoestring budget. Since its establishment, the museum has been caught in the middle of a political tug-of-war between Congress and the Reagan administration. It was an early target for spending cuts, and promised government funding has not been released. Although a recent \$16.7-million appropriation virtually assures completion of the Pension Building's renovation, the museum must still lobby actively for operational funding.

In February 1984, Edwin Hale, a spokesman for President Reagan's Office of Management and Budget, contended that funding should be cut altogether, since the museum was "too specialized" and of no long-term benefit to Americans. It seems ironic that he regarded the museum's mission so narrowly when one considers how extensively the built environment affects the quality of everyone's life. In the end, it is precisely this sort of indifference toward architecture that the National Building Museum might help remedy.



Three drawings from the National Building Museum's opening exhibition on federal architecture include, from top to bottom, a perspective view of the U. S. Post Office in Taunton, Massachusetts, by Jeremiah O'Rourke, 1893; an elevation of the U. S. Branch Mint in Carson City, Nevada, by Alfred Mullett, 1866; and a proposal for the Lincoln Memorial, by John Russell Pope, 1912.

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Exhibition report: Harvard takes a new look at Walter Gropius

By H el ene Lipstadt

The first major exhibition devoted to Walter Gropius, recently on view at Harvard's Busch-Reisinger Museum and currently at the Bauhaus Archive in Berlin through February 9, constitutes a landmark event in the historiography and museography of the modern movement. Composed of 150 objects that represent 66 projects dating from 1911 to 1946, the exhibition is the first to mine Harvard's immense Gropius Archive and its rich lode of original drawings and period photographs of both projected and realized buildings. The exhibit served to showcase this great Harvard treasure house during the dedicatory season of the new Sackler Museum and as an introduction to guest curator Winfried Nerdinger's forthcoming catalogue raisonn e of Gropius material in this and all other public collections. Although the show draws on only one archive, it is informed by the scholarship that would normally precede a retrospective, and the selection points to numerous and controversial modifications in the chronology and content of Gropius's oeuvre.

Nerdinger has peeled away the legend fabricated by the man himself, his collaborators, and his family members to reveal the historical complexity of the individual. Gropius's reputation, tarnished if not blackened by recent anti-modernist polemics and revisionist interpretations of the Bauhaus, is not rehabilitated; rather, one learns that both hagiology and ad hominem attacks have impeded one's knowledge of his career as an architect.

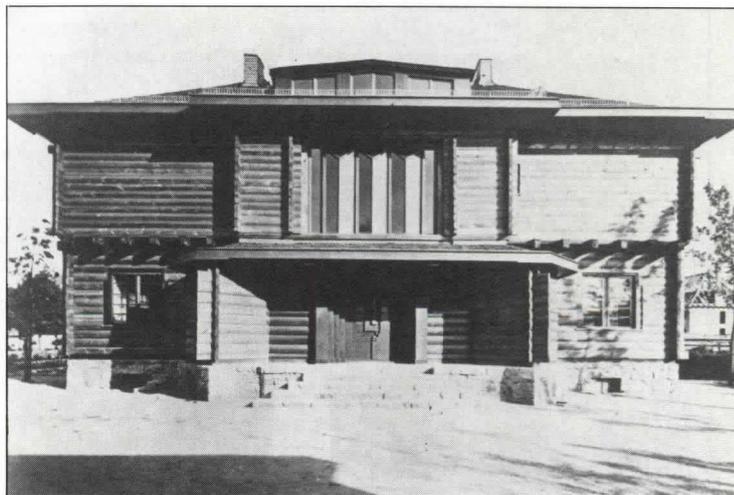
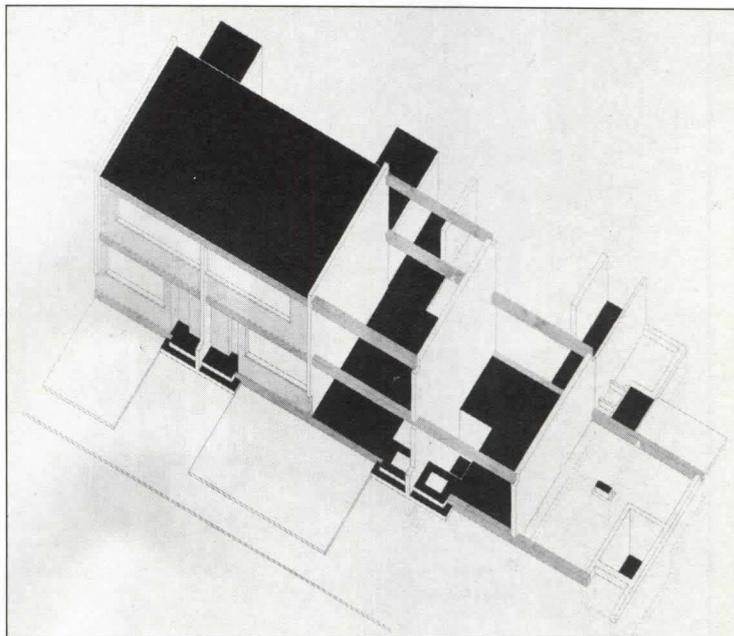
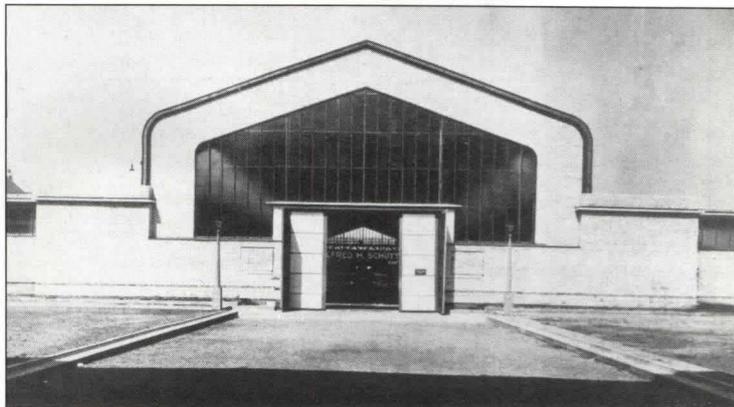
This then is the first opportunity to view drawings, many of them jewels of architectural drafting, that were previously only names on the list of works published by Gropius and Siegfried Giedion in 1954. These include an early, banal work for an industrialist uncle in Pomerania; the expressionist Kallenbach Residence (1921-22), with its colored, zigzag site plan whose patterns and shades triumph over architectural logic; and two industrial works—the Hannover Paper Factory and the Kappe Warehouse, both at Alfeld, near the Fagus Factory—in which the new sobriety announces the forthcoming achievements of the Bauhaus. The rarely seen Stadtkrone Project of 1927-28, a civic, cultural, and sports center for a ridge overlooking the city of Halle an der Saale, was a masterful synthesis of functional distribution and fantastic, even utopian, elements: the ceiling of the auditorium was suspended from a

roof garden reached by 12 glass-enclosed stairs, offering views of the rest of the complex and the city below.

Even familiar works take on new meaning. The view of the Fagus Factory that appears in all histories of modern architecture dates from 1914, not 1910. At the earlier date, Gropius had only designed an addition to the rear of the factory. He suppressed the image of his famous curtain wall in favor of the more ambitious, and more monumental, factory entrance. His renovation of the Municipal Theater in Jena, with Adolf Meyer and the Bauhaus workshops, is often described as the first simplification of theater interiors; it was, in fact, a hurricane of color. The foyer was yellow, the cloakrooms violet, and the balcony salmon pink, blue, and gray. The Bauhaus itself, designed without Meyer, is now reattributed to Gropius and two Meyer-trained collaborators, Ernest Neufert and Carl Fieger.

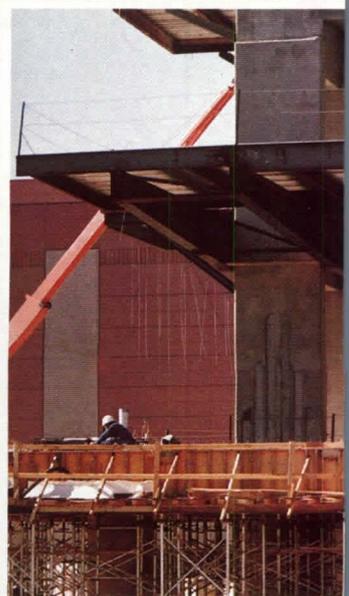
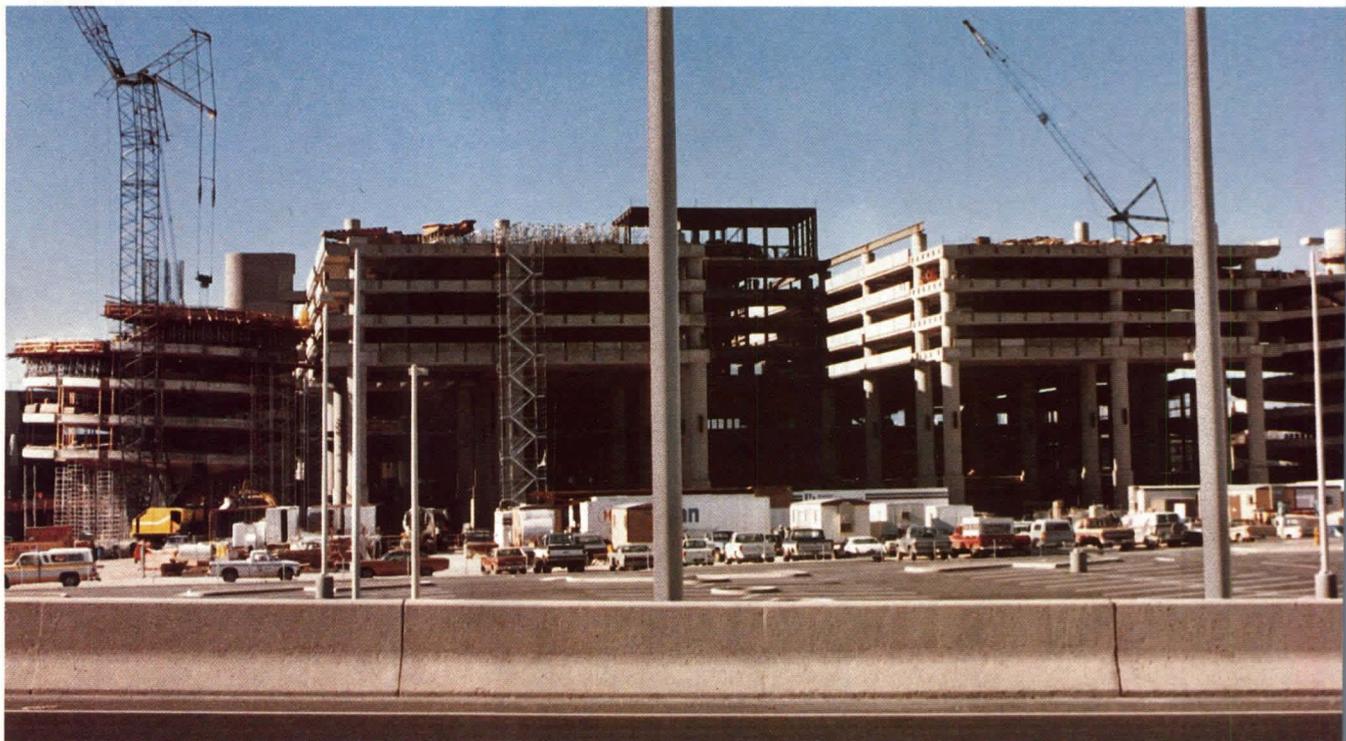
Even though all the drawings in the exhibit are signed by others, they illuminate Gropius's working method. Prevented by a damaged tendon from holding any drafting instrument other than the pencil stump that he later made famous, Gropius relied on extraordinary verbal skills to communicate his design intentions, working, as an unpublished early project for the Total Theater reveals, first with one assistant and then, when dissatisfied, with another. He nevertheless had a consummate understanding of the pedagogic role of the architectural drawing. He demonstrated in displays prepared for his exhibits and lectures, and in the great competition boards for Spandau-Haselhorst, that modernist architectural drawings could be exact, precise, and expressive. He favored aerial axonometrics and an airbrush technique that he thought objective, scientific, and industrial. Today, these beautiful renderings convey an appealing period flavor.

The importance of this exhibition will be lost if its discoveries are melted down and used simply as ammunition for postmodernist critiques. The next step is, inevitably, a social and cultural portrait of this designer, who was supremely confident in his art and willing to put his cultural and economic capital at the service of the avant-garde without sacrificing any authority.



Top: Entrance to the Model Factory at the Werkbund Exhibition, Cologne, 1914.
Middle: Isometric study for the T orten Housing Development, Dessau, 1926-28.
Bottom: Sommerfeld Residence, Berlin, 1921.

H el ene Lipstadt is a freelance architectural writer from Boston.



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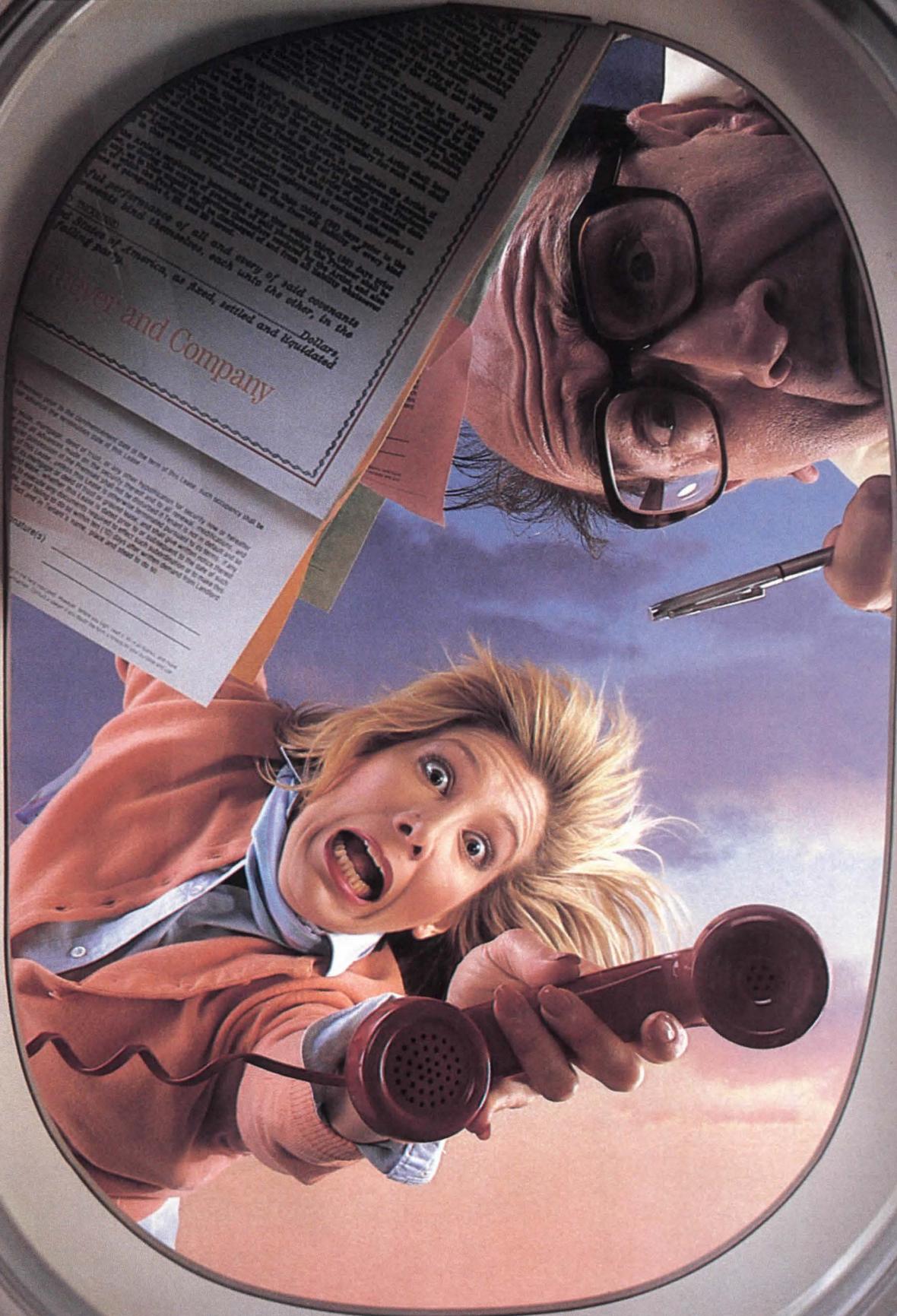
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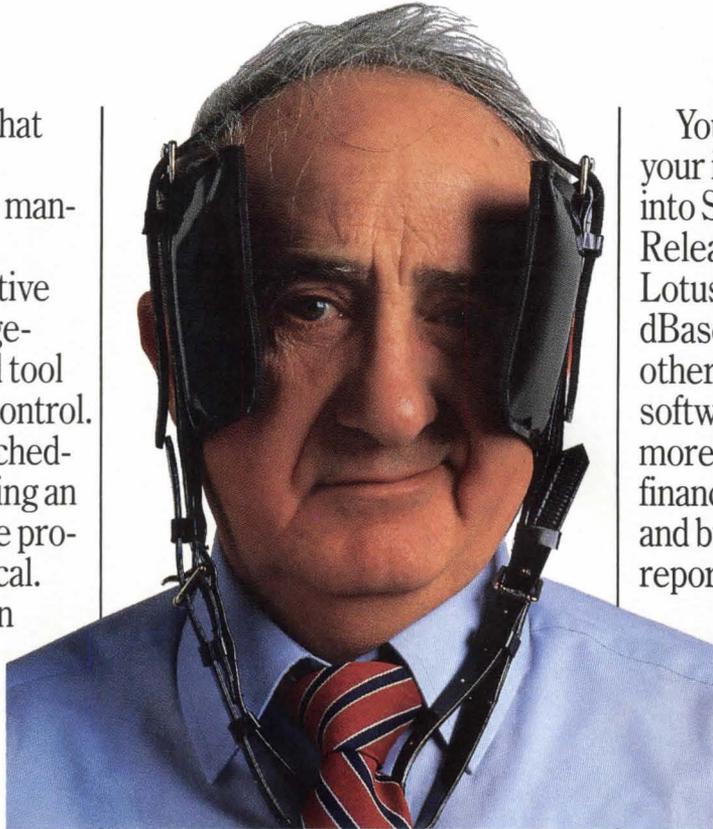
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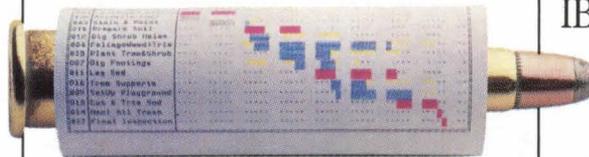
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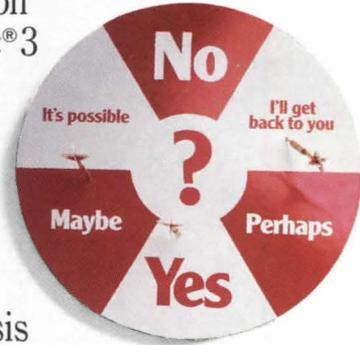


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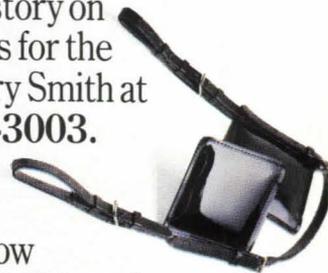
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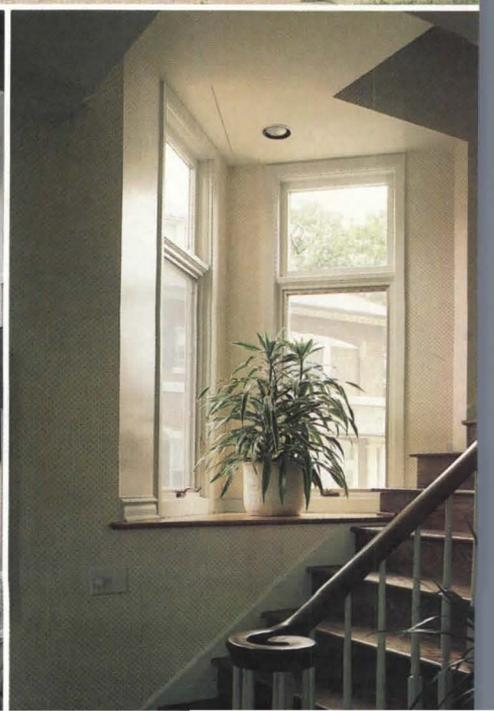
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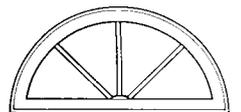
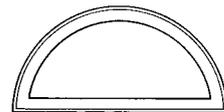
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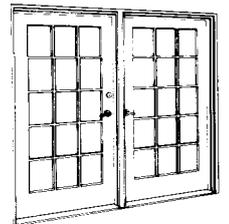


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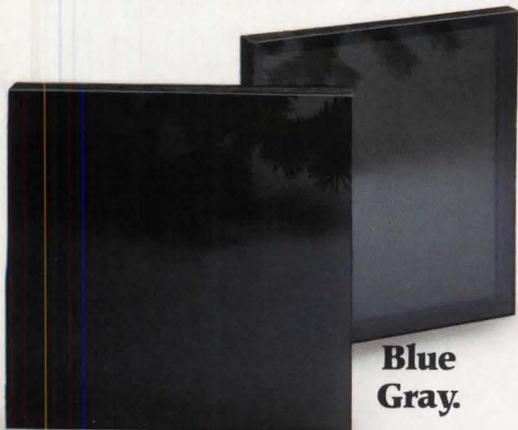


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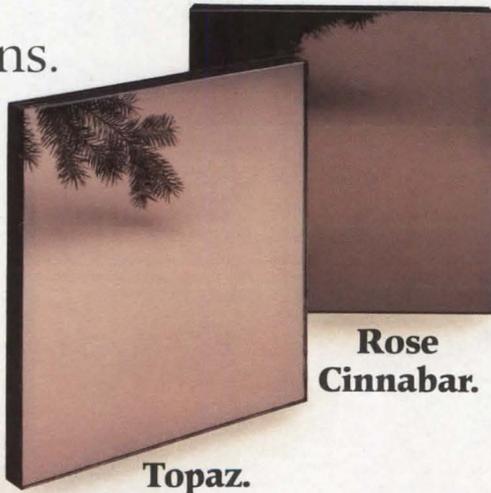
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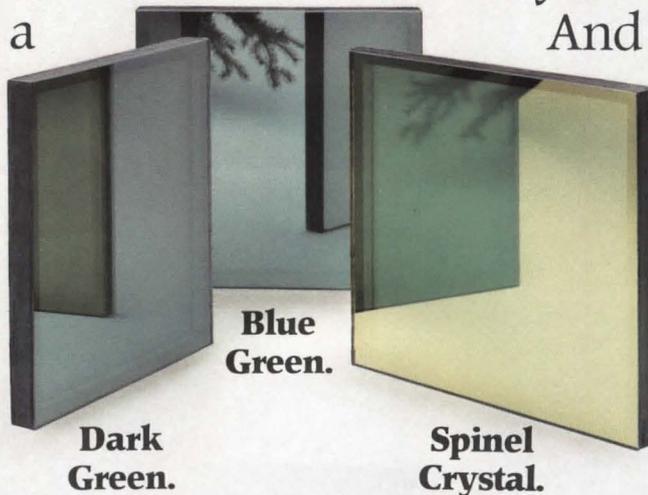
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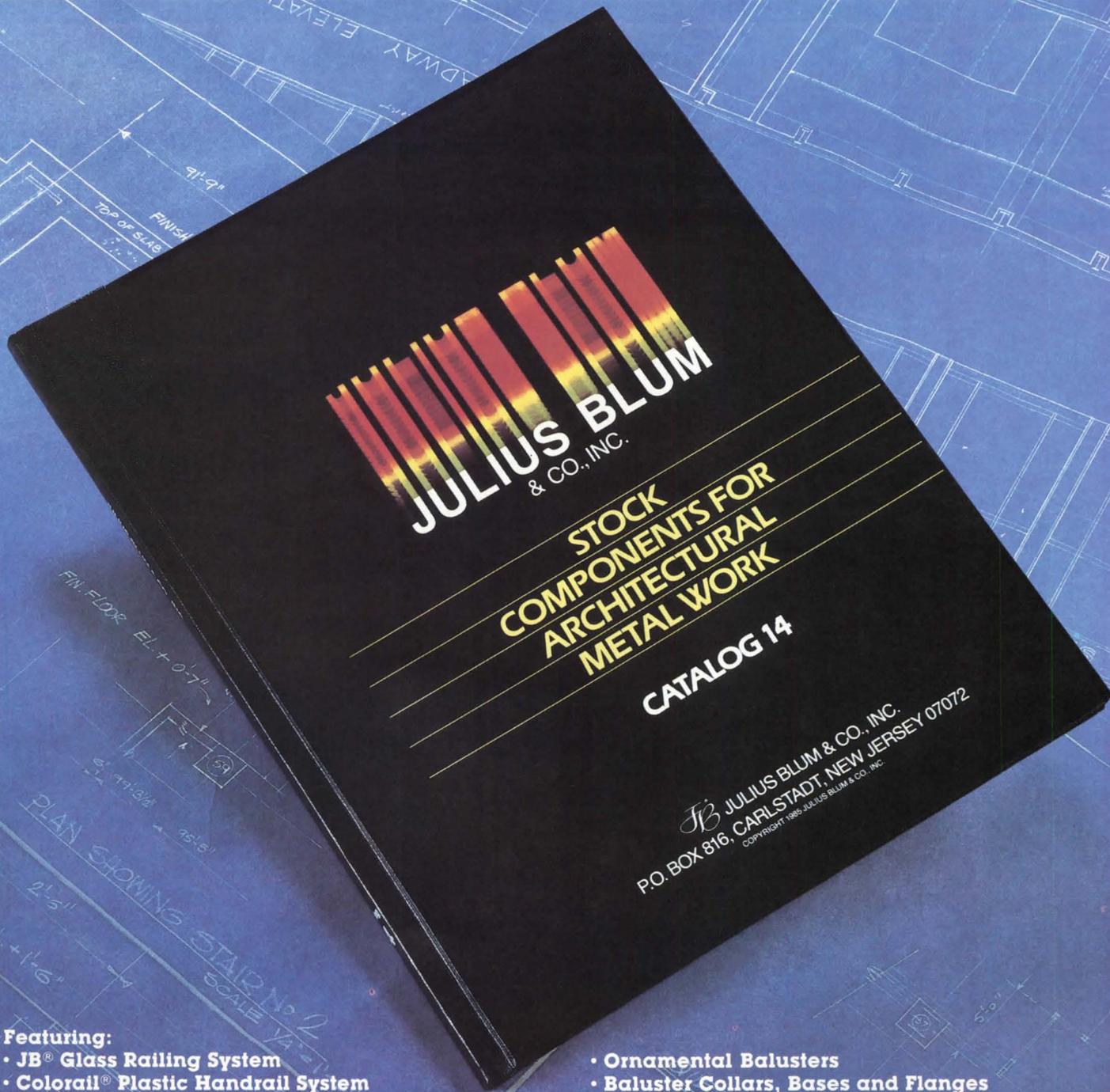
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Appropriate architecture

Flowing from the boards of Skidmore, Owings & Merrill/Washington's offices on upper Pennsylvania Avenue to sites throughout the District is an eclectic suite of buildings at improbable remove from the pristine Miesian vitrines long associated with the firm. So improbable that a sampling of recent work presented anonymously at a RECORD editorial meeting drew a collective "Who are the architects?" and the answer the staff's collective curiosity. The ensuing effort to satisfy that curiosity is reflected on the following pages, which show examples of what the firm has been doing over the last several years and explore the larger questions of why and how.

RECORD's monthly Building Types Study is what the label implies: a compendium of projects chosen to illustrate and, insofar as possible, illuminate the state of the art in the programming and design of buildings within a given category, and chosen too with an eye to diversity of style, approach and, not least, geographic location. Through 621 studies this pattern has been ruptured but rarely. Lately, though, a study has occasionally been devoted to a single building—when, as editor Mildred Schmertz noted in introducing such a departure, "an individual work of architecture boldly addresses and brilliantly solves one or more of the difficult and challenging problems of [its] type." If "firm" is substituted for "work of architecture" and "place" for "type," the introduction fits also this first study focused on a single practice and a single place.

In a time of architectural *laissez-faire* when, for all the profession's pious tribute to the rediscovered values of context and tradition, architects newly free to "do their own thing" seem often bent on doing just that, SOM/Washington has been building a various body of work whose disparate components not only speak individually of intelligence, integrity, and poise but together chorus a deeply sympathetic understanding of the city they are wrought to complement—an understanding the more important because much of the firm's current work is in neglected areas now being renewed and redeveloped and so is positioned to seed new contexts and influence the projects that follow. That the work was not orchestrated for latter-day Medicis but for bottom-line developers, in a city notorious for its byzantine web of regulation and review, makes the recent annals of Skidmore, Owings & Merrill/Washington the more compelling. *Margaret Gaskie*

Playing by the rules

Recent projects
Skidmore, Owings & Merrill/
Washington, D.C.

Conversation with SOM partners David Childs and Richard Giegengack about the projects lately emanating from the Washington office they head detours almost without pause to divagations on the city as both a uniquely demanding (if rewarding) setting for buildings and a meaningful generator of their form.

While acknowledging the regulatory quagmire in which architects new to work in the District (and old-timers as well) often founder, they do so with the equanimity of indulgent parents deploring the foibles of a favored child. Carpetbagging designers and developers trip, they say, when they try to play the Washington building game without fully understanding the rules: not only those on the books, such as zoning codes and review procedures, but those unwritten except between the lines of the city's economy and culture. "To try to build in Washington as if it were Cleveland," Childs observes, "is like charging onto a football field waving a badminton racquet."

Which is not to imply that Washington is alone in attempting to guide its physical destiny by hedging new development in a thicket of rules and regulations. As architects from New York to San Francisco can attest, most cities set building restrictions that seem to the uninitiated no less arcane.

Washington, though, early added a further constraint that barred from the capital the course of urban development by which the skyscraper came to embody the American city. Protective of Charles Pierre L'Enfant's original vision of its avenues as majestic allees lined with noble buildings and superimposed on the street grid of the working city, and fearful of canyonization that would threaten the pre-eminence of its monuments, the District's custodians promulgated in 1910 (and have amended little since) an "Act to Regulate the Height of Buildings." The act decreed "That no building shall be erected, altered, or raised in the District of Columbia in any manner so as to exceed in height above the sidewalk the width of the street, avenue, or highway in its front, increased by twenty feet." Canute-like, the act's authors sought to hold back the tides of commercial and architectural "progress." But unlike that ill-fated king, they prevailed, for better or worse molding the capital to a template whose divergence from the mainstream has become more pronounced over time.

In addition to a literal ceiling cast over the city, the 1910 Height Act perhaps unwittingly introduced a mechanism for establishing a figurative floor under building

design as well. Through a moderating clause allowing "spires, towers, domes, minarets, pinnacles, penthouses over elevator shafts, ventilation shafts, chimneys, smokestacks, and fire sprinkler tanks [to] be erected to a greater height than any limit prescribed in this act *when and as the same be approved by the Commissioners of the District of Columbia*" [italics added], the act founded the pyramid of design review and approvals—from neighborhood advisory commissions up to, in cases of conflict among lower panels, the Supreme Court—that most major building proposals must hurdle today.

In a city where making and reviewing law is a way of life, and politics both a vocation for the few and an avocation for the many, constraints and controls that might elsewhere seem over-zealous come naturally. And SOM would be the first to admit the frustrations of minutely prescriptive zoning ordinances and of review processes that can be costly, time-consuming, politically complex, and inherently tending toward the safely conservative. On the whole, though, the partners see the rules, and particularly the public referees who interpret them, as a positive force. "Buildings usually get better in the review process," asserts David Childs. "Panels that understand the city and its traditions can enlighten architects and clients who want to burst forth with the aria instead of carrying a spear. In Washington the principals—the White House, the Capitol, the monuments—take center stage and the chorus should stick to the sidelines."

Nor does the firm spare much sympathy for the frequent protest that the capital's restraints on building form stifle the architect's creativity. In response Childs points to the widely held belief that the great art of the Renaissance was nourished by great artistic freedom and cites as an example to the contrary Siena's Piazza del Campo, where, he says, "not only was building height controlled but the extent of window openings and even the color of the stone." It takes but the briefest stroll along, for example, K Street to discern that Washington's less stringent controls have produced no comparably salutary outcome. But the partners believe—and their work demonstrates—that if the rules of the game do not assure consistently good architecture, neither do they preclude it. For the expert player, they say, the game's rigors are "all part of the fun."

Neither the zest nor the skills, however, arrived full-blown, but evolved as the firm's growing portfolio brought a firmer grasp of

the design implications residing in the city's architectural tradition and L'Enfant's 1791 city plan. Even in a 20th-century city grown beyond its founders' imagining, the L'Enfant scheme retains an organizing force that imparts to the District a distinctively Baroque flavor. To appropriately flesh this European frame, SOM has come to believe, calls for a European sensibility that views the spaces of the city—its parks, circuses, squares, and the open thoroughfares that draw the eye to important monuments and vistas—as its proper foci and its buildings as their frame.

The partners would not wholly agree with the landscape architect who, they say, professed bafflement at the preoccupation of architects with buildings, which, he pointed out, "are only the biggest pieces of furniture in the landscape." But they affirm that working in Washington has broadened their vision of architecture to something approaching that perspective. To preserve pride of place for public buildings requires the decent reticence of lesser efforts, they say, and there are both challenges and rewards in "background buildings that are only part of the city, not objets d'art."

Immersion in so past-conscious a city has also heightened their respect for those earlier examples of ensemble architecture whose deft blending of variety and unity within the forced scale of the city's streetscapes increasingly informs their own design approach, even to the occasional heresy of borrowing salient traditional elements.

While admiring the individuality endowed the city by the paired legacies of L'Enfant's taut diamond-on-square street pattern and the 1910 Act's imposition of insistently horizontal building forms, the partners are acutely aware of the more obscure ways both—and particularly the cumulative effects of the height act—impinge on design within the District. Their elaboration of these, more than any enumeration of regulatory strictures or discursion on the demands of developer-clients, paints a picture of the Washington architect as Gulliver, beset by the gnat stings of Lilliputian swords and bound round by invisible threads.

Referring to the street plan, for example, Richard Giegengack paraphrases an earlier Richard: "My kingdom for a rectangle." For in addition to creating the great circles and surprise nodes of green that dot the city, the avenues angling through the street grid carve oddly shaped blocks that in turn give rise to awkwardly shaped building sites. And the blocks are by

the standards of many newer cities outside. Elsewhere, the developer's favored 20,000-square-foot floorplate may occupy a third or a half or all of a block, allowing generous outside exposures; in Washington, the same plate more often shares its block with several buildings in a forced contiguity of both mass and facade that, accompanied by the preclusion of setbacks, poses a far more difficult design problem than a partly or wholly freestanding building.

Enter the "Act to Regulate Height." Although the limit rises to 160 feet along the broadest avenues and shrinks to 110 feet in some districts, it in essence caps at 12 stories buildings in the most densely developed areas of the city and for any given site largely predetermines the building envelope. Largely but not entirely. The building mass is also shaped by the allowable ratio of floor area to site area, which is more generous in some areas than in others but is always less than the building footprint filled to the height limit. "We always have to carve away a little—and sometimes a lot," Giegengack reports, adding that the challenge lies in introducing the required open space in a form appropriate to the building, without violating SOM's self-imposed ban on undue erosion of the street wall.

If the massing game thus far resembles the formulaic opening gambits of chess, it becomes more complex and more subtle in the endgame. The partners almost wistfully contrast the horizontal forms that in Washington emerge inevitably from the constraints of code and commerce with the tall freestanding tower, which they maintain is, like a suspension bridge, "potentially handsome by nature." "It is much more difficult," Giegengack remarks, "to design a squat mass that isn't handsome to begin with—and is glued to someone else's mass."

Compounding the difficulties of properly proportioning long horizontal facades, the height limit that produces them diminishes the organizing potential of the repetitive floor: "By the time you get to the typical floor, you've reached the roof." SOM has become skilled at exploiting the necessary variations in plan to liven elevations, but the partners admit the cost in design time is high.

An even less obvious impact of the height limit on facade development stems from the minimum floor-to-floor depth needed to pack 12 stories into 130 feet, or 10 into 110. The tight interior fit shows itself in elevations with horizontal elements squeezed together, leaving only a reminder of the generous spandrels and window

Skidmore, Owings & Merrill/
Washington, D.C.

Design partners: David M. Childs
and Richard Giegengack

Associate partners: James L.
Bodnar, Joseph Calvarese, Milo
Meacham, Jerome W. Rasgus,
Marilyn Jordan Taylor

Associates:

Roger W. Bass, Gerald W. Briggs,
Carl M. Campioli, Thomas A.
Curley, Edward D. Dunson Jr.,
Donald J. Ghent Jr., Michael Morgan
Gick, Carl M. Hensler, Robert S.
Larson, Kenneth Leibowitz, Brian Z.
Levite, John E. Moyer, Richard L.
Paschal, Wayne Schifflbein, Duane
L. Sohl, Billy W. Wells

heads that in Washington's older buildings invited ornament. And facade design is further cramped by the city's decree that walls rise unbroken and the real estate industry's insistence on measuring leasable space to the glass line—an invitation to the plain plane.

To counter the implied and explicit strictures on design—and the resulting temptation to the safe, quick and banal—SOM/Washington has evolved an arsenal of design stratagems that lately includes many drawn in part from close study of the successes and failures of earlier generations of architects laboring under similar constraints. "We're not interested in copying the past," Childs says, "but we try to understand the rules."

To the underlying design question of gracefully handling inherently difficult forms, the firm brings the strategic principle that large unwieldy masses yield most readily to a bold attack, with the tactical corollary that even minor maneuvers can strengthen or weaken its force and so deserve time and attention.

A key stratagem is the partners' near-obsession with the classical tripartite organization of horizontal forms. The oft-repeated litany "base-middle-top" is a source of some amusement within the office but is nonetheless taken seriously as a device for manipulating proportion and altering perception of a building's mass. (Childs notes too the particular pertinence for Washington of the Baroque-inspired use of strong horizontal elements to force perspective on street facades toward an important focal point.) And the resulting strength and clarity constitute an advantageous point of departure for the development of other elements to bring harmony or counterpoint to the total composition.

The results are most evident in the growing richness and complexity of the facades the firm has designed over the past several years. Layering and modeling, changing window patterns, shifts of material, revealed structure, and, increasingly, subtle and not so subtle ornament all contribute to the development of articulated and patterned surfaces the more striking in contrast to the featureless flatness with which so many Washington buildings confront the street.

Because of the importance they attach to a clearly defined, unbroken street edge, the partners view the open space requirements that chip away at lot lines as a mixed blessing. Thus, having introduced the city's first atrium, the firm continues to deploy open space in the usable form of atriums and courtyards, sometimes

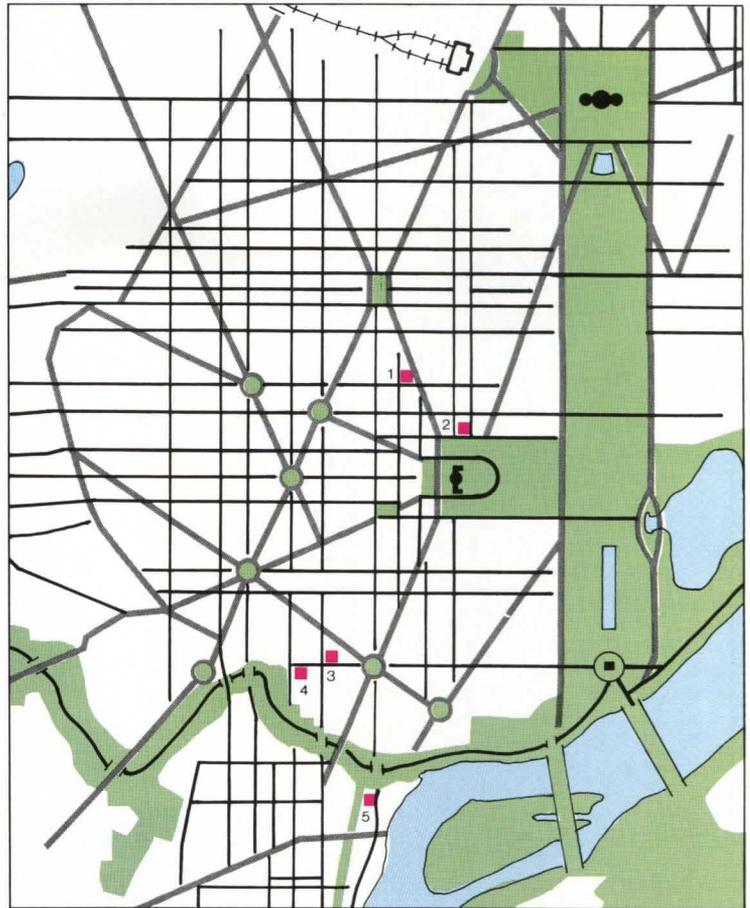
combined with the also frequent contrivance—especially well-adapted to corner sites—of concentrating the open space at the building entry to impart a sense of ceremonial welcome. (Entries are in any case emphasized as the logical focal point for a carefully composed base and are often oversized, even extending on occasion into the building's midsection.)

Similarly, apart from their insistence on a distinctly delineated upper section, the firm's designers diligently exploit the height act's exemptions for "spires, towers, domes. . ." and such appurtenances as penthouses for elevators and mechanical equipment, which they have become adept at camouflaging or exaggerating to add an appropriate roof form or crowning element—or both—to the allowable building height. But since this often entails such word-chopping as calling a dome a penthouse or an atrium skylight a dome, the firm is now working with the District on more rational rules for rooftop structures.

Among the factors behind SOM/Washington's silk-purse design on developers' sow's-ear budgets, the partners say, is approaching design "without preconceptions about what the skin will be." Aware that any "extra" expense is likely to reside in facing materials, they prefer to let the overall design suggest a choice—most often humble brick or precast concrete, which they favor because modeling can be built in during forming and use superbly as a stand-in for limestone. More expensive materials, notably granite and marble, can then be employed to maximum effect for such high-visibility uses as base details, trim, and interiors. "A handsome building can be made of inexpensive materials," says Richard Giegengack, "if they're put together properly."

The well-made, meticulously detailed building is among SOM's long-standing hallmarks, but the Washington office has lately brought to detail a heightened perception, born in part of the firm's several renovations of railroad stations, of the transforming effect of "the little bits and pieces" on fundamentally simple structures. As a result an always-sure hand has become freer in lavishing attention on hardware, lighting fixtures, elevator cabs, entry doors. . . a monograph could be written on the changes rung in railings for balconies and stairs.

Without unbecoming modesty, the partners attribute the maturing of their work, its distinction and consistently high quality, to "being in the right place at the right time." More intensive competition among



developers has bestowed on them more enlightened clients.

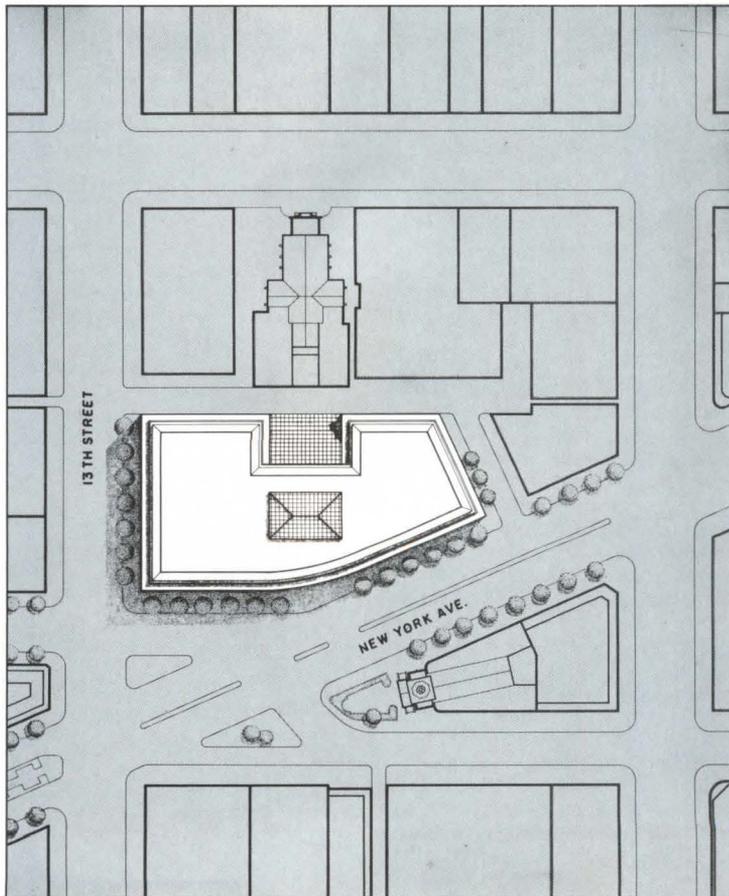
Washington itself has undergone a shift from a sleepy parochial city to a cultural capital with national influence. But above all, the partners point to participation in a widespread professional reawakening: "If you're released from the old rules, you have a greater responsibility," says Childs. "We're interested in making buildings that are handsome, appropriate, and consistent with our own goals." M.G.

1. 1300 New York Avenue (at 13th and H streets)
2. Metropolitan Square (15th and G streets)
3. The Grand Hotel and office building (24th and M streets)
4. U. S. News & World Report Headquarters (24th and N streets)
5. Jefferson Court (Thomas Jefferson and K streets)

1300 New York Avenue

In the timelessly elegant office structure at the convergence of New York Avenue with H and 13th streets—an instant classic in a classical city—SOM/Washington plays without a false note its full repertoire of architectural responses to the city's codes and context. At 1 million square feet with 12 levels above grade and four below, the massive structure is the largest nongovernmental office building in the District. An extreme instance of the hard-to-proportion squat horizontal form, it is further complicated by an awkward corner site with a long, shallowly angled edge that "belongs" to the avenue's processional to the White House, while the intersecting street more closely relates to the commercial city. Partner-in-charge David Childs resolved the conflict in scale by meeting the avenue with a sweeping, strongly articulated facade softened with a legato curve, and compressing the pattern to a tauter rhythm on the street elevation. Although it appears to stretch the full 400-foot building length, the curve in fact is confined to a 90-foot-wide center section punctuated by a punch-windowed recess overlaid by a monumental four-story arch, the tallest of a triplet announcing the principal entry. Flanked by separate rectilinear structures of reinforced-concrete, the midsection is a discrete steel-framed tower embracing a 12-story-high interior courtyard that, with the tiny plaza carved from the street angle, satisfies the open space requirement while filling the site to the property line and maintaining a well-defined street edge. Despite its bulk, though, the building sits lightly, buoyed by rich sculptural and textural embellishment. The *de rigueur* composition of the facade into distinct horizontal elements—a restrained but powerfully detailed three-story limestone and granite base (photo right); a colonnaded midsection of buff precast concrete; and a robust cornice over an attic that is subtly ornamented with buff concrete window surrounds set off by a slim infill band and intersecting "pilasters" of tan glazed brick—reappears in its tripartite vertical organization. Anchored by sturdy endpieces pierced with punched windows, the elements on either side of the curved central tower contain doubled cylindrical columns crossed by bold projecting beams to form a grid that screens the window wall behind. At the crown, mechanical and elevator penthouses are tucked beneath a mansard roof of standing-seam metal painted trilage green to echo the weathered copper roofs of "other" neoclassical buildings nearby.

Victoria Lefcourt

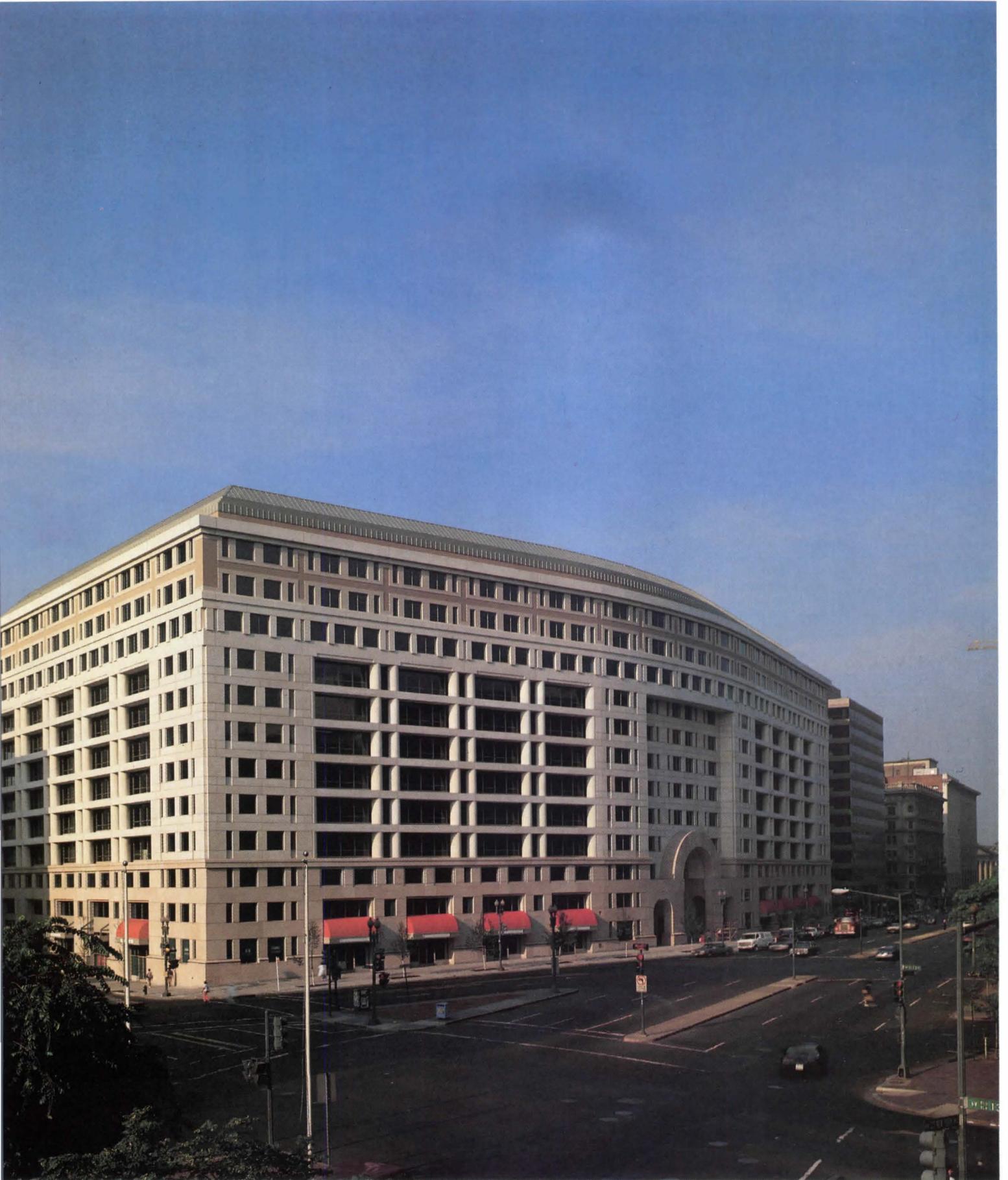


In deference to the historic Church of the Epiphany on its south side—which will be engulfed by new construction when the planned redevelopment of the surrounding block is completed—the aligning central element of the New York Avenue building is stepped back via a space-framed skylight that angles north from the seventh to twelfth floors of the interior court, giving the church breathing room and light



while framing views of it from the atrium. The landmarked former Masonic Temple the building faces across the avenue was accorded the even more subtle recognition of highly abstracted "borrowings" from its materials, colors, and window proportions, and the crenulate dentils beneath its frieze. Less obscure is the echo of its tomato-red roof in the new building's ground-floor awnings.

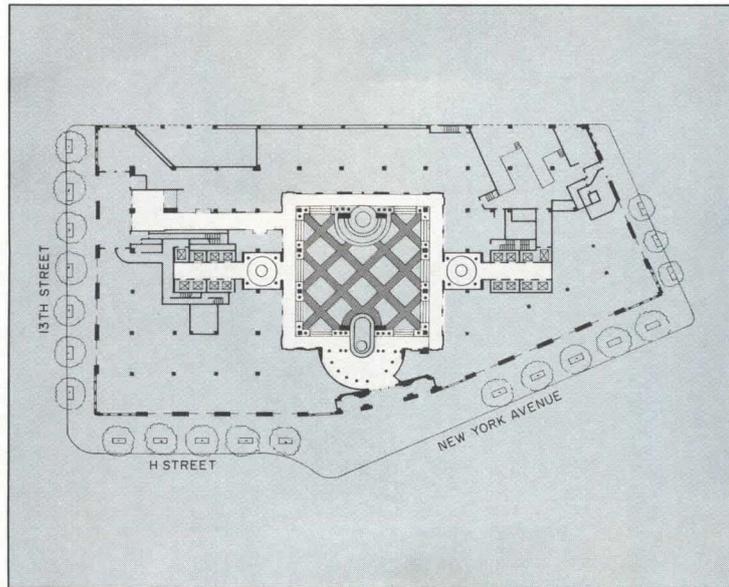
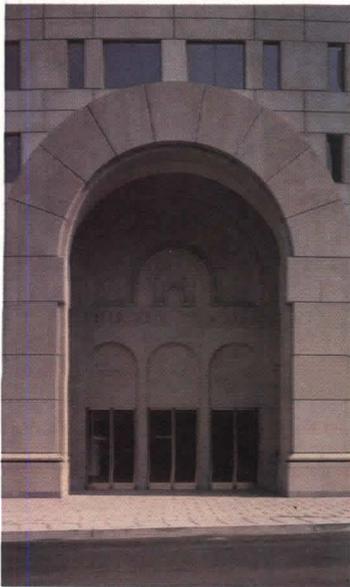
Max McKenzie



The classic restraint of 1300 New York Avenue's exterior breaks free within the atrium to classicism of another order—the cortile of a Renaissance Italian palazzo. Although the monumental central arch (photo bottom left) opens to a lobby entrance set askew from the inner atrium, the awkward transition is deftly smoothed by the half-round of a rotunda that sweeps the eye to a great arch introducing

the soaring court beyond. In keeping with SOM's principle of using rich materials sparingly but prominently, the lower court is lavished with white marble surfaces contrasted by colored marble in the court paving, the shallow stairs to the enclosing two-story loggia, and the arches denoting entry to the domed vestibules of tapestry-accented marble-clad elevator lobbies on east and west. Above the loggia—

and the usual line of sight—the stepped vine-hung balconies lining the court are rendered in ordinary dry wall, which is also used with great finesse for background elements on the lower floors. Touches of elegant whimsy are found in such details as the topiary spires dotting the court and the mock columns, capped by huge marble jawbreakers perched on exaggerated squared capitals, that brace the



straightforward muscular columns ringing the loggia. The dominating feature of the space, however, is the towering waterfall inspired by the gardens of Villa Lante in Bagnaia, which cascades from a seventh-level source over a series of basins to a sculptured court-level pool.

1300 New York Avenue, N. W.
Washington, D. C.

Owner:

The ASC Company

Architects and engineers:

Skidmore, Owings & Merrill/
Washington, D. C.

Engineers/consultants:

GHT, Ltd. (mechanical/electrical);

Lerch Bates & Associates, Inc.

(elevators); Schirmer Engineering

Corporation (life safety analysis);

SWA Group (landscape architecture)

Contractor:

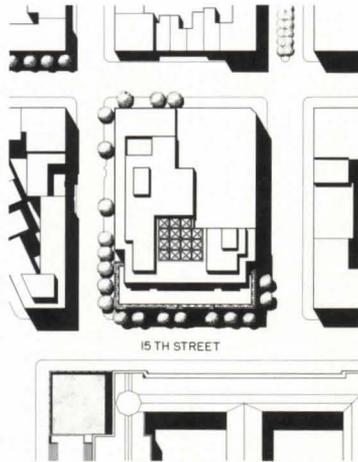
Chas. H. Tompkins

Victoria Lefcourt photos

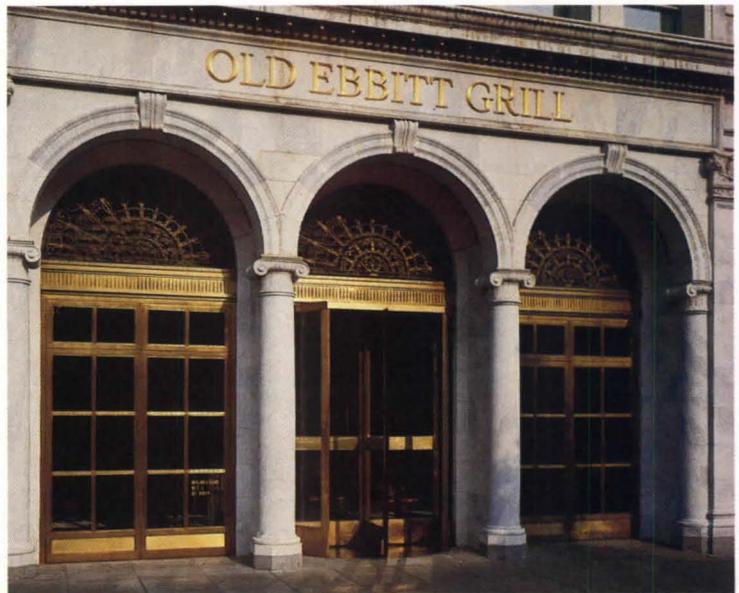


Metropolitan Square

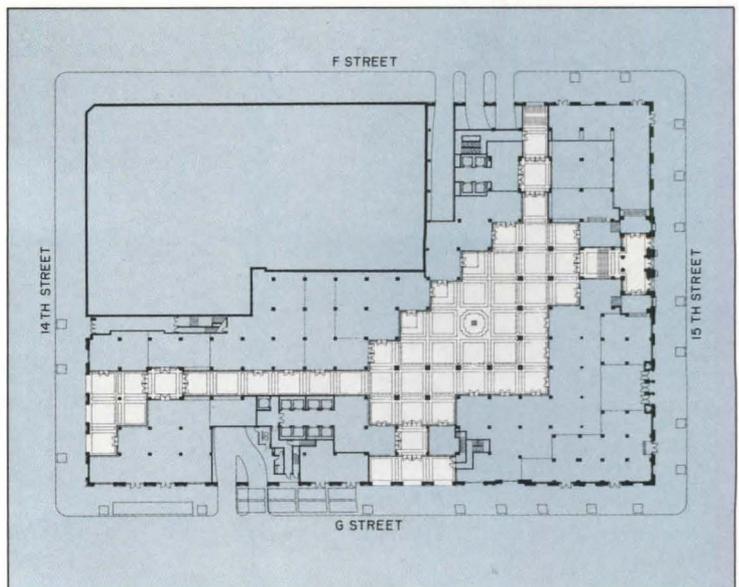
A marked test of SOM's affinity for traditional Washington came with the development of the Metropolitan Square office complex on a prominent three-quarter-block site at the juncture of the federal precinct (the White House is half a block away and the massive Treasury Building directly opposite) with the tired but fast-rejuvenating "Old Downtown" business district. Insinuated among an eclectic assortment of elderly neighbors, the project also incorporates three landmarks: the Metropolitan Bank, a Beaux Arts sliver mirroring the Treasury's monumental colonnade; the adjoining former home of the once-noted Keith-Albee theater; and the interior of the Old Ebbitt Grill, long a popular local watering hole. The L-shaped building leaves the landmarks' facades intact around updated innards while introducing a new 12-story mass to abut the Keith-Albee building on the G Street side, and filling out the 15th Street block with a more delicately inserted corner segment attached to the bank. On the interior these elements are woven together by a skylit atrium ringed with street-level shops and restaurants—including the Old Ebbitt Grill whose vintage fittings are now ensconced behind the Keith-Albee's triple-arched entry arcade. The larger office block rises from a two-story limestone base that reiterates the classic details and rustication of the landmark buildings' foundations. Though less forcefully defined than in SOM's latest work, crown and midsection are sketched at the third and tenth floors by balustrades across recessed glazing. On other floors, windows form flush squared bays framed by a structural grid that recalls the rhythmic pilaster and window pattern of the adjacent Keith-Albee facade. Even so, direct confrontation between the old and new faces is avoided by a deep niche at the critical joining. Similarly, upper floors set well back from the landmark facades, unseen from nearby vantages, preserve the original street scale and the strong line of the old buildings' pronounced crowns, now carried to the new corner element as well. With the Beaux Arts bank as centerpiece of the composition, the balancing addition takes its primary cues from the robust reticence of the Keith-Albee facade, establishing through profile and proportion a kinship reinforced by stylized but recognizable details from door to dormer. (The partners are especially pleased with their abstraction of the Keith-Albee's Corinthian capitals, rendered in the new section with a shift from limestone to Stony Creek granite to emulate with color the shading and texture of the original.)



Jerome Adamstein



Max McKenzie



*Metropolitan Square
Washington, D. C.*

Owner:
The Oliver T. Carr Company
Architects and engineers:
*Skidmore, Owings & Merrill/
Washington, D. C.*
Associated architects:
*Vlastimil Koubek, AIA
(construction documents and
administration)*

Engineers/consultants:
*Baskam & Jurczyk, P. C.
(structural); General Engineering
Associates (mechanical); Claude
Engle (lighting)*
Contractor:
*The George Hyman Construction
Company*

Dan Cunningham



The Grand Hotel and Office Building

SOM/Washington's penchant for establishing instant context is nowhere more evident than in the West End, an under-utilized low-density area now the scene of a burst of redevelopment. Among the earliest new arrivals was the aptly named Grand Hotel, a classically inspired hostelry that would be at home in the most fashionable of the District's old established precincts. (Childs and Giegengack recall with relish the incredulity of visiting national SOM partners on learning that the hotel is not newly renovated but new.)

The opportunity the project offered for city-building was amplified by the inclusion of an adjoining office structure (photos overleaf), which gave the designers control over both the foreground hotel and its immediate foil. And the client's brief for an intimate but elegant facility in the European manner encouraged play with neoclassical idiom approaching *trompe l'oeil*. The building's eight-story profile seems to climb toward a corner opened by symmetrical setbacks centered on the dome-crowned facade at the main entrance. And while scarlet awnings and balcony rails and billowing flags over a lacy steel-and-glass entry marquee abet the deception, the immediate impression of exuberant ornament is created largely by the same unadorned precast elements that support the illusion of upward-aspiring mass. These include a powerful rusticated base that graduates from two stories at the street edges to four at the center of the inverted entrance facade, where its apparent height is boosted by the verticals of paired columns spanning an upper porch and a colonette "supporting" the dome above a roof line accented by tripled molded banding.

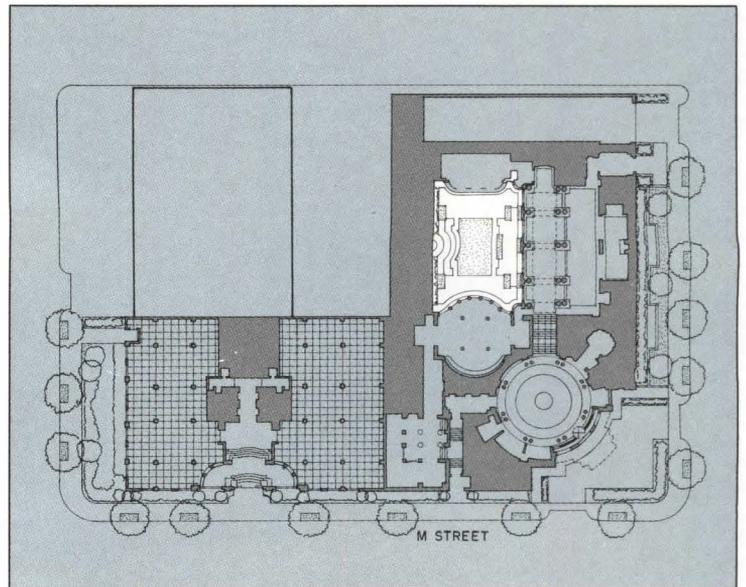
The designers' sleight of hand also extended to the hotel's public rooms, which betray no hint of the plan contrivances behind them. In fact, the program stretched the allowable building envelope, and providing the required 234 rooms squeezed the space available for other functions. The fit was achieved without visible stinginess by wrapping the hotel around an *inner courtyard* that satisfied the open space requirement, and relegating back-of-the-house and conference facilities to the perimeters of the lower two floors plus an "extra" floor in the form of an English basement. From the domed double-height rotunda of the main lobby, a marble stair leads to a dining promenade with adjacent lounge and bar, which in turn gives access to the hotel's formal restaurant and a small private dining room—all borrowing space and views from the outside court.



Victoria Lefcourt



Victoria Lefcourt



Although it is modest in dimension—only 60 by 40 feet—the courtyard at the core of the Grand Hotel looms large in the amenity it adds to the overlooking public spaces. In addition to the long Promenade restaurant that follows its length, the hotel's formal restaurant and a smaller private dining room opposite it across the court partake of its formal landscaping and terraced fountain,

as do guest rooms above. The enclosing low structure disguises hotel support functions and supports a second-level swimming pool shaded—and shielded from onlookers above—by a vine-covered pergola.

Max McKenzie



The 120,000-square-foot office building that adjoins the hotel is designed to harmonize with it—but in a lower key. The color of the brick is a tone lighter than the hotel facing, the hotel's punched windows give way to strip glazing in a flatter facade, and the juncture between the buildings is cleanly marked by a niche. Nonetheless, commonality is established by strong regulating lines, including a continuation of

the hotel's formal base planting and granite plinth and an upper colonnade that echoes the colonette under the dome. As always, the designers invested the entrance with ceremony in the form of a rusticated archway introducing a small but handsome two-story lobby.

Dan Cunningham



*The Grand Hotel and Office Building
Washington, D. C.*

Owner:

The Kaempfer Company

Architects and engineers:

*Skidmore, Owings & Merrill/
Washington, D.C.*

Engineers/consultants:

*General Engineering Associates
(mechanical/electrical/plumbing);
Associated Engineers (civil); Jutras-
Nobili Associates, Inc., Charles
Pfister, Inc. (interiors); Clevenger
Associates (kitchen/laundry);
Claude Engle (lighting)*

Contractor:

*The George Hyman Construction
Company*



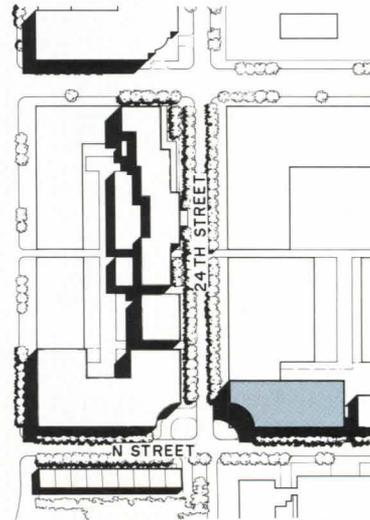
U. S. News & World Report Headquarters

Dan Cunningham

Through a competition for the development of a three-acre site held by the *U. S. News & World Report* publishing company, SOM/Washington won the opportunity to extend the attitudes reflected in the design for the Grand Hotel and office building to an immediately adjacent mixed-use complex that will include, in addition to the headquarters for the magazine, another SOM-designed hotel and office structure and, ultimately, a high-rise condominium and townhouses. As the first component in the project, the *U. S. News* building now seems oddly formed and tentative. When it is paired with the soon-to-open look-alike opposite, however, its porticoed semicircular entrance court will become half of a London-style crescent marking the head of a T-shaped grouping of buildings whose leg follows 24th Street to its terminus facing Rock Creek Park. In keeping with the firm's belief that variety is the spice of cities, *U. S. News* little resembles the nearby Grand Hotel or even other SOM projects in the same complex—nor they one another—but a detectable thematic kinship among the buildings arises from the perception of the West End as a transitional zone between the monumental gray-stone federal city and domestic red-brick Georgetown. Evident also in the handling of scale and proportion, the theme is most clearly expressed in the melding of materials characteristic of the two areas. From Georgetown, the *U. S. News* building derives its cladding of rosy, oversized sand-molded brick laid with grapevine joints; from inner Washington, the buff cast-stone ribbons that striate the facade. Variations in the striping combine with window recesses to delineate a base and crown further defined by deep setbacks, while the assertive cap housing the mechanical penthouse is balanced at the base by a stoa arcing around the auto drop-off. Within the eight-story building, which also includes an English basement and two below-grade parking levels, a four-story entry hall iterates the curve of the facade, where the rhythm of the fenestration is broken by a curtain wall that affords upper-level interior balconies views of the park beyond as well as the reception area below. Set off by a wine-red floor of polished and flame-cut granite, pristine white dry wall reprises the patterning of the outer structure, with etched joints and mock pilasters and capitals substituting for color.



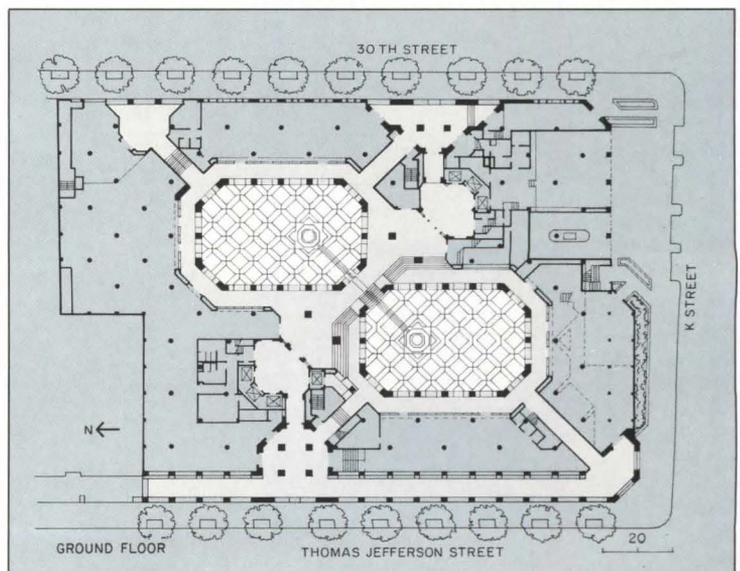
Max McKenzie



U. S. News & World Report
Headquarters
Washington, D. C.
Owner:
Boston Properties and U. S. News & World Report in joint venture
Architects and engineers:
Skidmore, Owings & Merrill/
Washington, D. C.
Engineers/consultants:
Shefferman & Bigelson Company
(mechanical/electrical); Kurt N. Pronske, P. E. (civil)
Contractor:
OMNI Construction, Inc.

Jefferson Court

The popular image of Washington's Georgetown district—prim polished houses, fashionable restaurants, exclusive shops—neglects the traces that remain of its pre-Revolutionary origins as a port and industrial center that prospered into this century before falling into decline, hurried toward its demise by an elevated freeway along the river edge. In the late '60s, however, gentrification began to reverse the cycle, and the area has since become a hub of preservation and renewal as residential and commercial development edges toward the riverfront. Nonetheless, it was the original industrial character of the area that SOM sought to perpetuate in its Georgetown debut with an office and retail project abutting the freeway and fronting on Thomas Jefferson Street—the entry axis to a large mixed-use waterfront development. The stout cast-stone-trimmed red-brick structure is indeed reminiscent of turn-of-the-century manufactories and warehouses, with such genre Georgetown embellishments as the chunky turrets and double chimney pots. Its imposing presence and monumental free-form composition, though, attest the dominant influence of Richardsonian-Romanesque, confirmed in entrances announced by high pediments and triple archways, the echoes of window triads culminating in half arches, the building-long procession of low wide arches framing shop entrances on the Jefferson Street facade, the subtle use of ornamental brick, and a host of details large and small. To further diminish a bulk already constrained by Georgetown's 90-foot height limit, the sixth floor of offices is disguised by a sloping glass wall that reads as a mansard roof, and the topmost floor is set back yet another notch, almost wholly concealing it from the street. Because the site falls nearly 15 feet from north to south, the building is broken into two segments, allowing the insertion of an eighth floor at ground level on the south. To open inner offices to light and views, the structure's upper and lower levels are pierced by generous cortiles giving onto retail stores and a restaurant-to-come. Though linked, the courts are offset to reinforce the diagonal path between the main corner entrance and the corner opposite, leading visitors and workers through formal gardens sparingly planted to direct attention to focal fountains. To contrast but complement these open-air rooms, the courts are cloistered by sheltering loggias and a joining arcade of broad brick arches, a reminder against the inner walls' unadorned planes of the exterior's sturdy solidity.



*Jefferson Court
Washington, D. C.*

Owner:
Trammell Crow Company
Architects and engineers:
*Skidmore, Owings & Merrill/
Washington, D. C.*

Engineers/consultants:
*GHT, Chartered (mechanical/
electrical); Schnabel Engineering
Associates (geotechnical); Kurt
Pronske, P.E. (civil); Bolt, Beranek &*

*Newman (acoustical); Charles R.
Johnson (survey); Raymond Grenald
Associates (lighting); Gerald
Palevsky (fountains)*
Contractor:
Sigal Construction Corporation

Carol Highsmith photos





ESPRIT

ESPRIT
LOS ANGELES

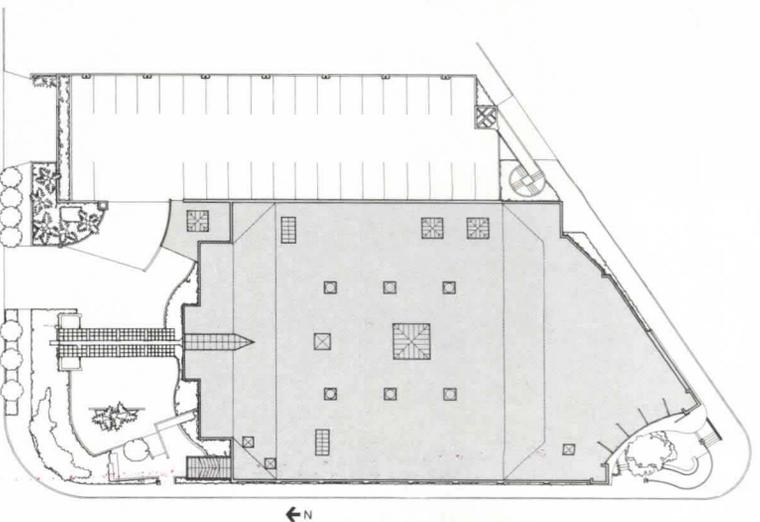
Command performance

Esprit Store
Los Angeles, California
D'Urso Design

It is always a little embarrassing when a designer is proudly showing off his latest work and can't find the light switch or speculates out loud where this or that door leads: "Of course! And here's the broom closet." Though we tend to feel deceived at moments like these—as if the person passing himself off as an author had enlisted the services of a ghostwriter—such minor mishaps acknowledge nothing more damning than the reality of the contemporary "team" approach to design. Joseph Paul D'Urso does not subscribe to that particular reality. He sees himself as a solo performer on the stage of design for whom the team spirit is an alien one [extended credit list on page 116 notwithstanding]. Consequently, D'Urso not only effortlessly locates all the light switches in the clothing store he designed for Esprit, he traces the precise path of the conduits. "I don't delegate responsibility," the autocratic designer explains, "I don't see design as some kind of school project that you hand over to someone else to work out the problems." The control D'Urso maintains over his work is total, but costly. For the \$15-million Esprit commission, the 42-year-old designer essentially transplanted himself from Manhattan to the job site in Los Angeles, where he could be found most days from dawn till dusk designing *in situ* (as is his habit) and keeping an unforgiving eye on the workmen's progress. While such total involvement means that there is remarkable cohesiveness to D'Urso's work, it also means that the entries in his portfolio of works-in-progress tend to number, like his staff, around three (give or take one or two). The designer is unperturbed, however, by the limits to his practice such exacting methods impose: "Wouldn't you rather do 10 great projects in your life than 50 good ones?" The quota as well as the underlying assumption that the road to greatness must be traveled alone may be debatable, but Esprit constitutes persuasive evidence in favor of the designer's unorthodox stance.

"They wanted it to be the most fantastic store anyone could do. . . that was the program," recalls D'Urso, who rallied to the cause after Esprit co-owner Doug Tompkins offered "what it takes" as a budget, and a derelict bowling alley built in the '30s by Art Linkletter as a site. Though the building was more burly than beautiful, D'Urso admired its gutsy character, and elected to preserve it by limiting exterior modifications to a minimum. After satisfying code requirements for the handicapped, introducing new windows and skylights, refurbishing existing public and staff entrances, and erecting a three-story parking structure (at top in plan below and at right in photo below), he wrapped the bloated behemoth in a monochromatic four-inch blanket of concrete. The result is a monolithic structure that may be more restrained than the flashier fare being served up along Santa Monica Boulevard, but is not without a series of engagingly idiosyncratic appurtenances which invite closer inspection. Though one must be astute to see in such subtle gestures as a delicate window mullion, a perfectly detailed pipe rail, or an elegant wire-mesh gabled canopy the tell-tale signs of mastery at work, such discreet signals are merely the whispered promises of things to come. For once you pass under the curved billboard rising above the sweeping awning (facing page), you enter 30,000 square feet of relentlessly designed and crafted space that is neither subtle nor discreet. Without compromising his watchmaker's eye for detail, D'Urso has exercised a set designer's eye for visual drama, as the theatrical overtures delivered in Esprit continue to satisfy under scrutiny. It's as if Fabergé were working on a grand scale with a less fragile material palette: an exquisite filigree of steel members, D'Urso seems to argue, need not be less luxurious than gold. While it might have been a tragedy, D'Urso choreographed the insertion of Esprit in the old bowling alley so artfully that container and contained appear intertwined in an elaborate *pas de deux*. Considering the complex mechanical, structural, and electrical systems involved, as well as the intricacy of Esprit's functional requirements, such fluidity is more than memorable. It is, in every sense, a virtuoso performance. But then that's the only kind D'Urso knows how to give. *Charles K. Gandee*

© Timothy Hursley photos





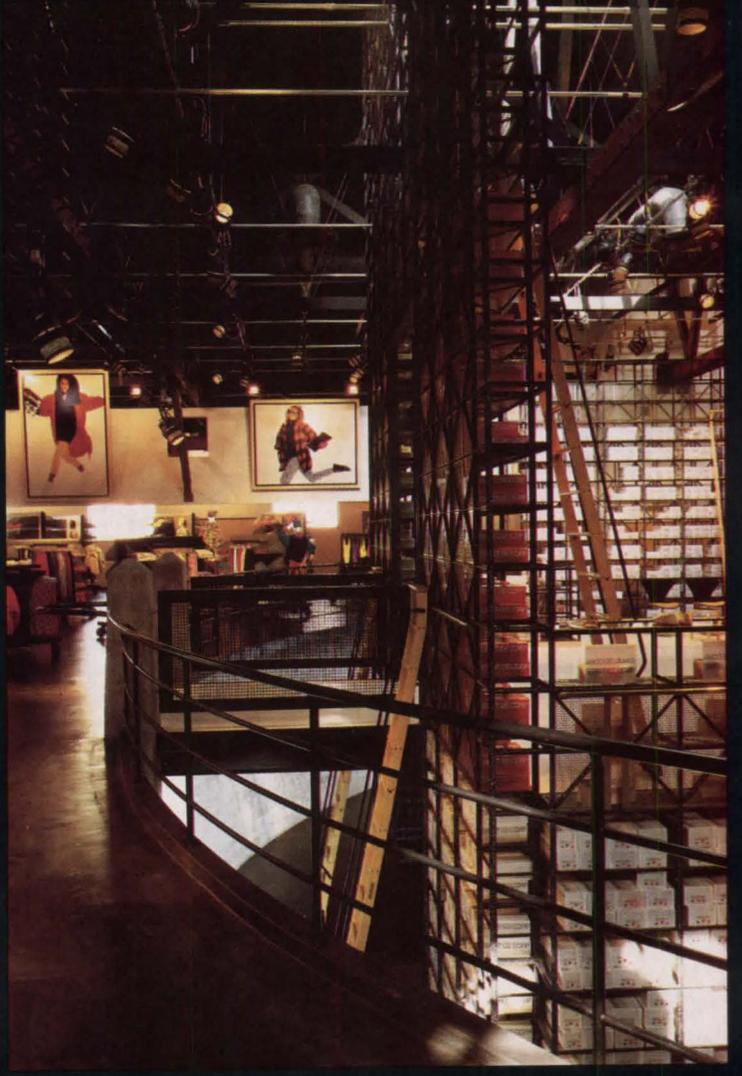
©Ballo & Ballo photos



Though Esprit customers must walk 112 feet from parking garage to entrance, and though walking is not a local custom in Los Angeles (especially along Santa Monica Boulevard), D'Urso chose to leave the building's front door in place (site plan previous page). The "psychological importance" of the entry's high visibility, he argues, is worth the relatively minor physical inconvenience: "It's critical to be able to instantly identify the entrance from a moving car." (The only alternative was to situate the new garage and relocate the old entrance to the rear of the building, which would have rendered visual and physical access to both something of a mystery, at least from the street.) Once reached, the front door opens onto a triangular foyer in which the "supermarket" concept on which D'Urso modeled Esprit is announced via rolling shopping carts and a lineup of streamlined checkout counters (facing page). The store's 15,000 square feet of selling space seemed to call for the mass market accouterments, especially the wire shopping carts (they free up shoppers' hands to reach out for more Esprit notes store manager Polly Nelson). In addition to a customer service area (photo left), Esprit's children's division is also situated near the checkout counters (at left in photo below). Acting in concert with three cone-based structural columns, the serpentine platform guides visitors along the diagonal path D'Urso plotted to an asymmetrical arch that frames an aerial view of the store's main selling space (overleaf). Because he wanted to delay the impact of that grand perspective, D'Urso dropped a massive soffit over the five checkout counters. The suspended partition not only ensures that visual access to the great inner room be kept to a tantalizing minimum, but that financial transactions are carried out in a more intimate, low-ceilinged atmosphere. Lodged within the soffit is a mezzanine that leads employees to the lighting system's computer, which is housed in the wire mesh, barrel-vaulted capital of the concrete-based column that divides the arch from the checkout counters (photo facing page).

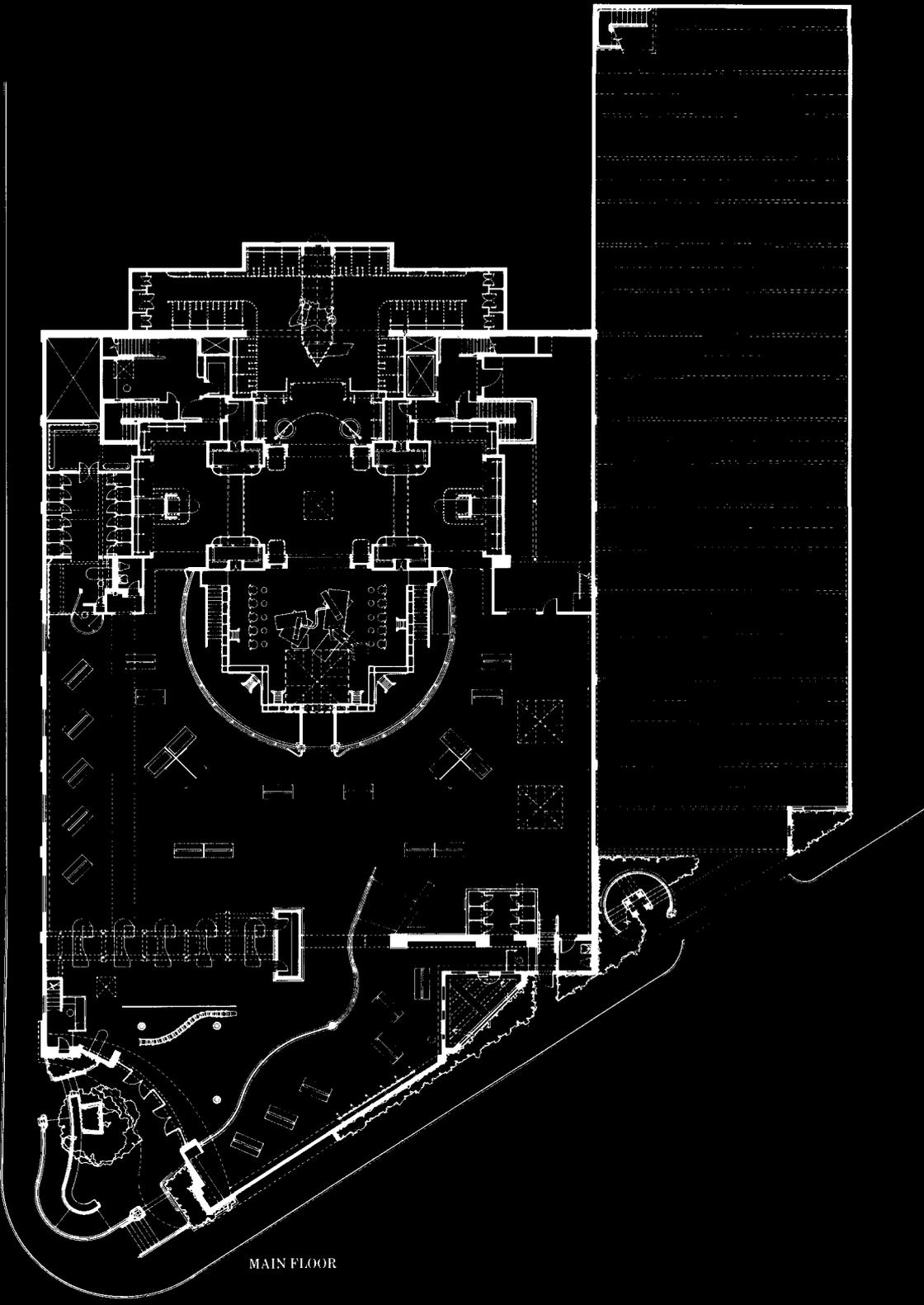




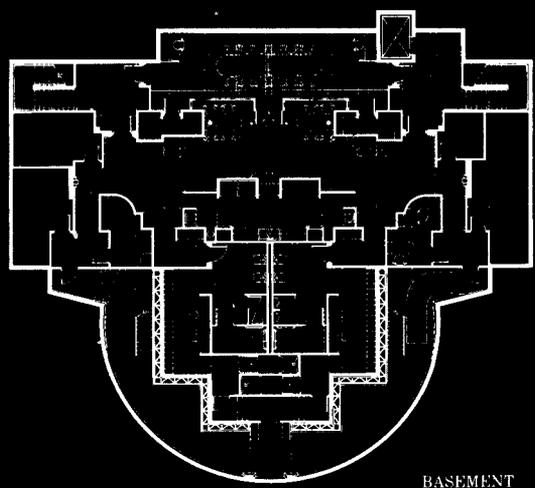


If from the exterior Esprit's flagship store appears to be inflated (photo top, page 107), the bulbous roof is explained from within by the massive timber bow-string trusswork that supports it. In addition to supplying a rather bizarre exterior element, however, the great structural system supplies 32-foot ceilings and almost 15,000 square feet of column-free space as well as an intriguing display of some forgotten engineer's talents (photo previous page). D'Urso was delighted not only with the 112-foot spans but with their spatial byproduct, and resolved to honorifically preserve both. Rather than destroy the space with a rabbit warren of gypsum boutiques, D'Urso left the great space great for Esprit's large sport division. And rather than hide the intricate maze of beams and cross braces behind a new ceiling, he not-so-simply brought the aged structural system up to code with reinforcing steel plates and U-beams that stiffen the 50-year-old trusses. Old and new are identified by their respective coats of black and red paint which, like the skylights, help draw the eye heavenward.

Continuing with the powerful industrial esthetic, D'Urso laid a polished (and also black) concrete floor and hung a high-tech theater lighting system. (Massive rolling display racks, designed by San Francisco industrial designer Bruce Burdick, are no less sympathetic to the esthetic.) Despite his reverential regard for the great room, however, D'Urso was aware that a powerful counterweight was required to offset the potential gymnasium effect. A permanent and monumental "architectural element" was sought which would tame, but not break the spirit of, the vast space. It comes in the form of a concrete-walled elliptical void carved 9 1/2 feet into the floor, from which rises three steel cages that act as screens. The central screen (portal to the shoe department within) soars to 26 feet; its flanking companion pieces, to 14 feet (photo previous page). Visitors cross a small bridge to the shoe department "island," where a defiantly festive sculpture by Ettore Sottsass signals a shift in esthetic tempo which is also registered in the oak floor (photo near left). From the bridge one looks down to the moat below where Esprit employees scurry to and fro on rolling ladders restocking the metal storage cages with colorful inventory (photos facing page). Though the moat is fundamental to the success of D'Urso's monumental gesture—giving the island and the steel cages room to breathe—it was no mere architectural conceit that sent the designer digging. The subterranean descent began when Esprit specified 6,000 square feet of support area for its staff exclusive of the selling floor. D'Urso realized that he could excavate a little more than necessary for the employees to accommodate his moat, which also functions as a circulation path for staff-members making the ascent from the conference rooms, lunch rooms, and locker rooms below to the selling floor above. The underground employee area extends north from the shoe department (plans right).



MAIN FLOOR



BASEMENT



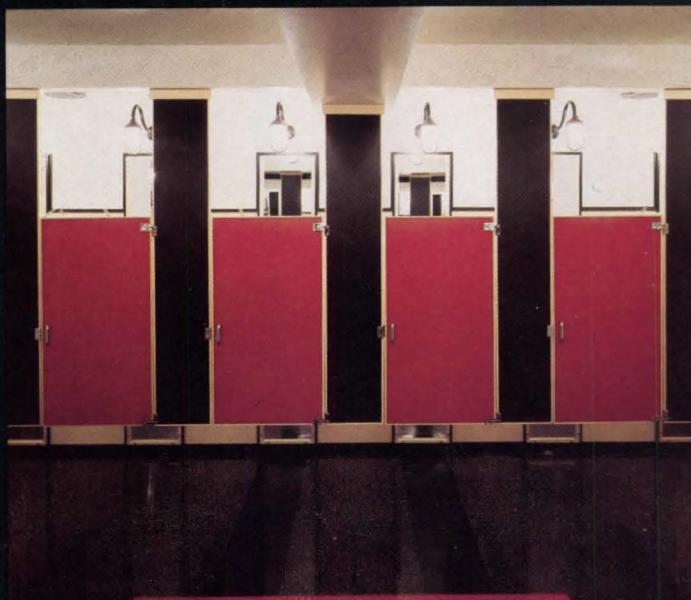
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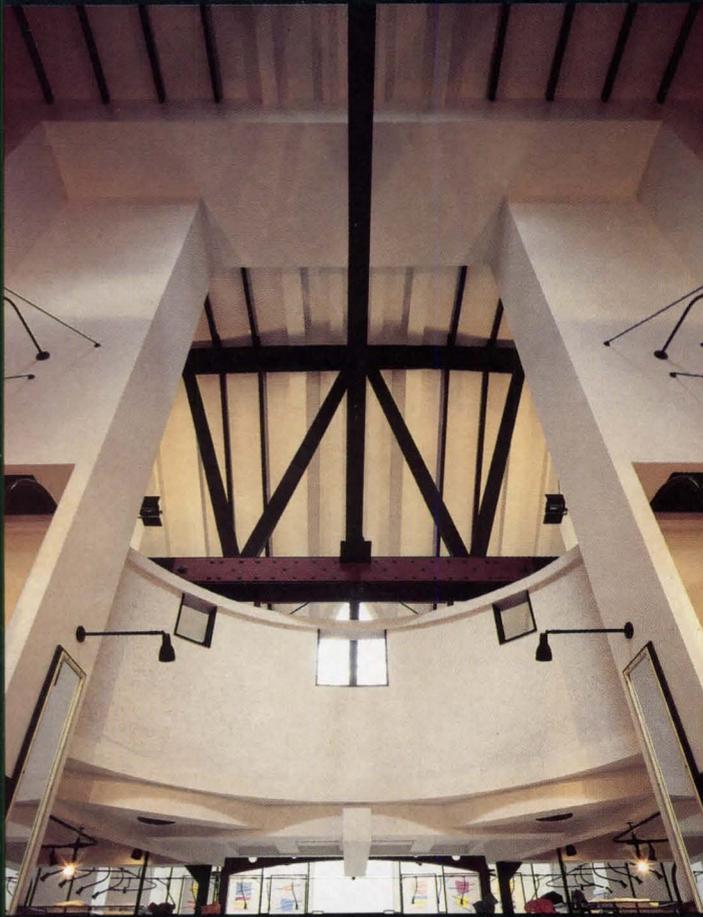
As those familiar with Esprit's massive advertising campaign know, the company's clothes tend to run toward the colorful California-lifestyle-style; yet in addition to its popular "sport" collection, Esprit also has a pricier, less flamboyantly "fun" line called simply "Esprit." While the former collection was appropriately housed in the store's vast, high-tech quarters up front, the "better dresses" (as they say in the trade) are situated to the rear in more intimate, and lower-tech quarters (photos left). Customers reach the inner sanctum by taking either the axial, ceremonial route through the shoe department or by walking around the moat that envelops the shoe island and entering less formally on the sides (plans and photos previous pages). D'Urso worked hard to create what he refers to as a "payoff space" here in the back, i.e., to make customers feel that their 124-foot journey was worth the effort. But since the back entrance to the store was a full story above the front (thanks to a sloping site), the opportunity had to be created. By excavating an additional 16 feet, D'Urso was able to achieve his desired payoff space in an annex he likens to a "chapel" (photo top left). After passing through an intermediary zone—with terrazzo floor, deco-inspired accessory display cases, and one vestigial reminder of the bow-string trusses up front (facing page)—one enters. A ridge skylight casts a luminous glow on D'Urso's softer material palette, which includes sisal flooring, Memphis-style furniture, obsessively-detailed light fixtures, and bird's-eye maple paneling (photo left). To reinforce the sense of movement from front to back, and the change from sport clothes to better clothes, D'Urso reduced the scale from wide open to salon-like. The insertion of two rectilinear support areas to either side of the rear helps offset the loft character found elsewhere in the store, while accommodating the various offices and stockrooms required by the program (plans previous page). Dropped soffits and low beams, and an intricate series of catwalks (leading to staff offices and storage rooms) and mezzanine-level lookouts, assist in creating the more human-scale rooms.

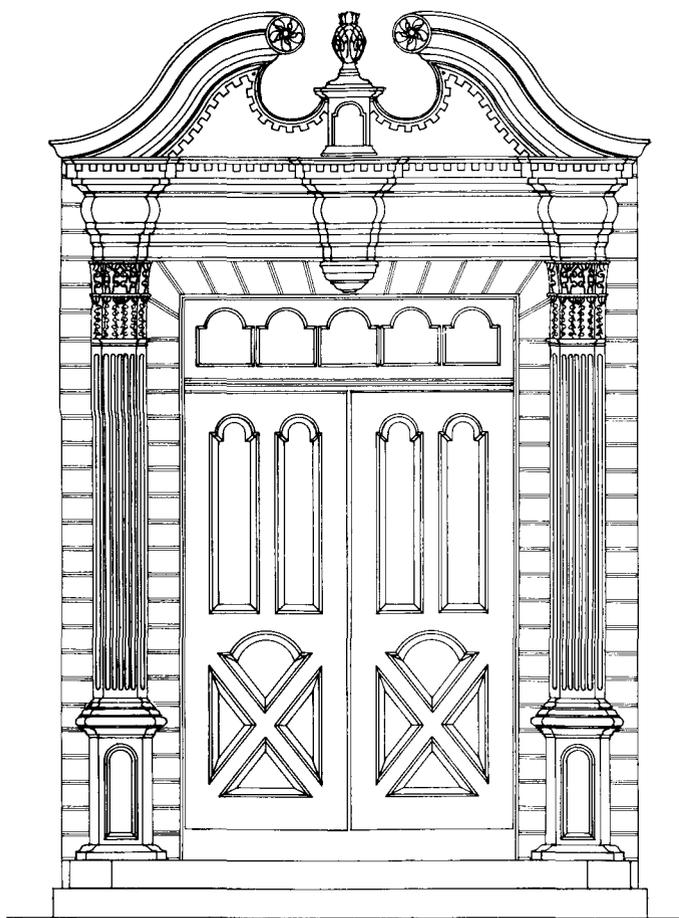
"At some point it becomes neurotic, because you want to work out every single thing," confesses D'Urso, who knows whereof he speaks. For at Esprit, the admittedly obsessive designer was presented with the opportunity to indulge that "neurosis," with the result that the closer you look, the more satisfying the view. Whether it be a curved glass surround (rear illuminated, of course) to a stockroom door (photo below), a graphically brilliant dressing room (photo right), an accounting office tucked neatly up under the trusses (facing page, near), a pendant light fixture in the employees' cafeteria (photo bottom), or the riveting dialogue being carried on between old building and new store so boldly illustrated in the structural system (photos facing page), D'Urso's mastery over the environments he creates is relentless—his control, total.



Esprit Store
 Los Angeles, California
Owners:
 Doug and Susie Tompkins,
 Esprit De Corp.
Designer:
 D'Urso Design—Joseph Paul D'Urso,
 designer
Associated architects:
 Robert Weit Associates—Robert
 Weit, Stan Kamehiro
Engineers:
 Svend Sorensen, Inc. (structural);
 John Denton & Associates
 (mechanical); Jones-Cooper &
 Associates (electrical)
Consultants:
 D'Urso Design with The Burdick
 Group (display and fixturing);
 D'Urso Design with Alfred Scholz &
 Associates (lighting); Thogmartin,
 Chazanas, and James Associates
 AIA (parking garage)
General contractor:
 Illig Construction Company



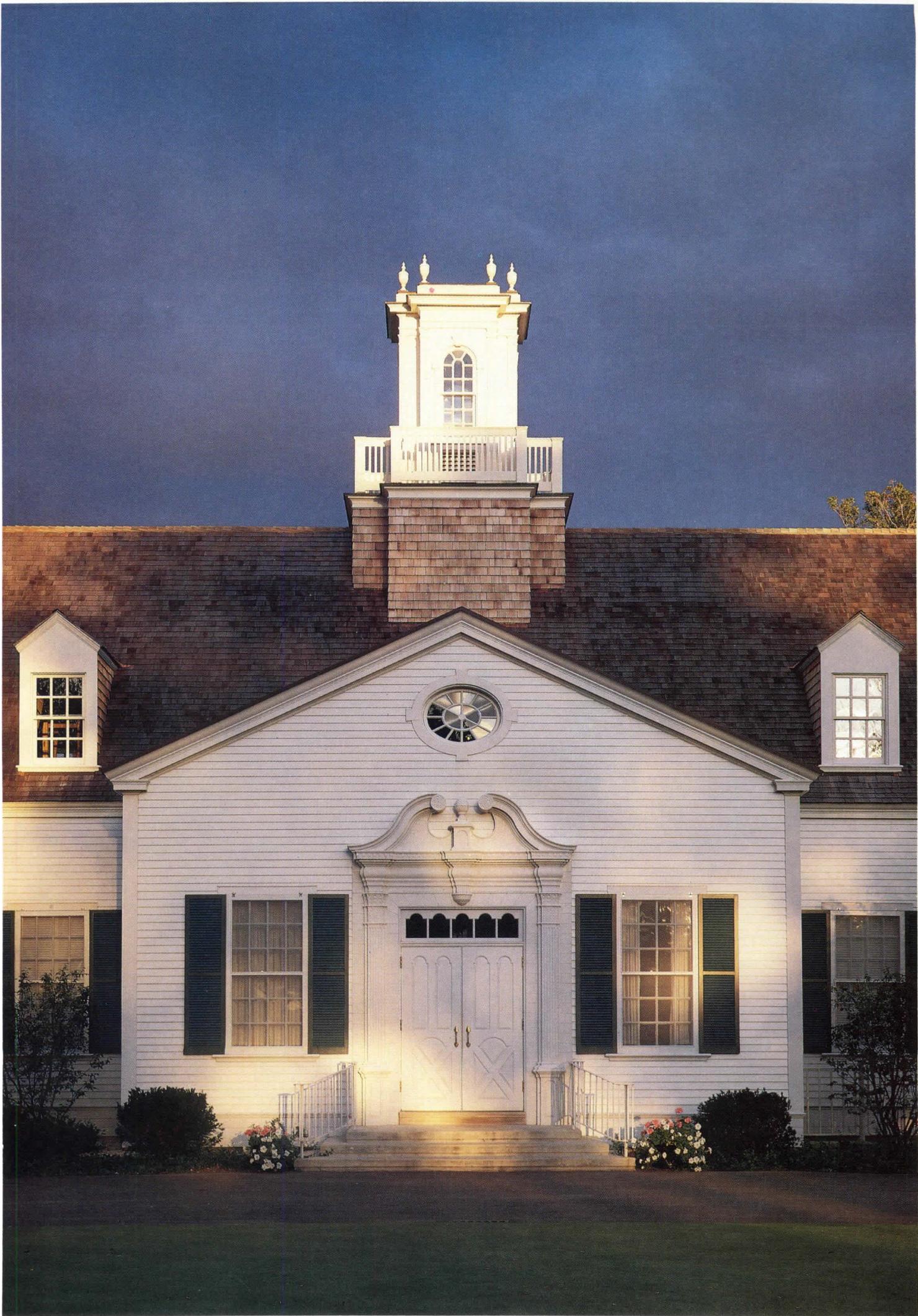




Upon his election to the National Institute of Arts and Letters in 1945, Chicago architect David Adler (1882-1949) offered a terse, one-sentence assessment of his career: "My work is all in the period of the 'great house,' which, today, alas, is over." At the time, there was good reason for the elegiac tone of this pronouncement. Economic and social upheavals, and rapid changes in taste and mores, had apparently ended the world in which a Beaux-Arts-trained architect such as Adler (no relation to Louis Sullivan's partner) could dedicate himself almost exclusively to designing town and country residences for the rich, in accomplished variations on period styles. The gentleman architect's postwar valediction to the great house might just as well have applied to the classical tradition it embodied, which was seemingly doomed to extinction in the face of ascendant modernism. As it turns out, many of Adler's 40-odd houses are still in private hands, *boiserie* and urns intact, in lush Chicago suburbs where they retain the cachet that elsewhere attaches to mansions by McKim, Mead & White or John Russell Pope. Informative as these buildings are as sociological artifacts, they continue to exert a wider esthetic appeal. Adler fell short of being the North Shore Lutyens, yet his subtly inventive oeuvre eminently deserves the scrutiny it is now receiving from younger architects with an interest in classical design.

One of the happier products of this research is the building illustrated on these pages, a country club by Booth/Hansen & Associates that replaces a 60-year-old Adler landmark that burned to the ground in 1983. The task confronting Booth/Hansen resembled the reconstruction of a beloved ancestral home, since the club members are few and intensely loyal. Equally respectful of Adler's lost landmark and of the memories associated with it, the architects strove to create a new clubhouse that would seem familiar the day it opened, even though practical considerations made it impossible simply to copy the building's predecessor line for line. Service facilities and mechanical equipment in the old structure had been obsolete or downright primitive, and even though the spirit of the place remained much as the 47 founding members conceived it—low-key in a gentlemanly way, and very private—more casual modes of living and the demands of corporate meetings, weddings, and large parties, to which the club now occasionally plays host, demanded more flexible circulation and larger spaces. Booth/Hansen held to the general outlines of the original parti while rearranging Adler's scheme of 10-foot bays to accommodate an additional 3,000 square feet of program space (the attic, formerly used for guest rooms and servant quarters, is now vacant, although the reconstructed cupola houses ventilating equipment). Vintage details were pieced together from Adler drawings at the Art Institute of Chicago and from photographs taken long before the fire.

Despite gaps in the records, which necessitated a good deal of ingenuity in an Adlerian vein, several key elements in the finished scheme are near-replicas of cherished prototypes, such as the frontispiece (opposite) and a hand-painted living-room wallpaper (page 123). Other components amplify rudimentary aspects of the Adler building: a cramped transverse corridor became a generous gallery (page 123); a makeshift glassed-in dining porch was transformed into a fully articulated pavilion. New additions such as robust cabinetwork in the Governors' Room (page 124), Jeffersonian serpentine garden walls, and the vigorous play of interlocking gables and shed-roofed masses behind the demure entry facade are no less faithful to the proportional and decorative idiom that Adler perfected. (The only regrettable lapse is the corner-cutting of shutters tacked to the walls sans hinges or shutter dogs, a solecism Adler eschewed.) As American as the institution of the country club, Booth/Hansen's classicism is taut but eloquent in its calculated reserve, and unmistakably devoted to a home-grown ideal of the good life. The building exudes the assurance of old money quietly spent and, as such, exemplifies a vision of the "great house" that many of our countrymen still hold dear. *Douglas Brenner*

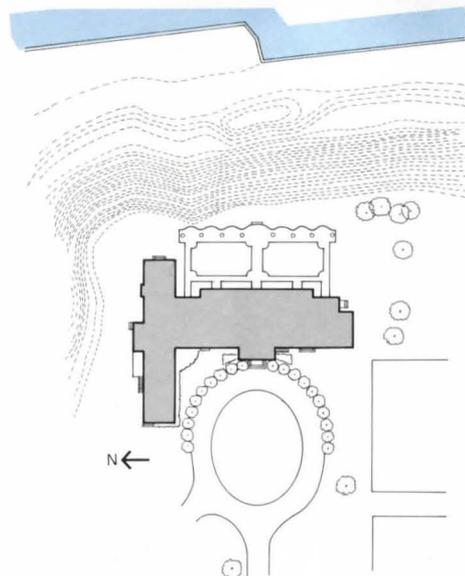


Timothy Hursley/The Arkansas Office photos





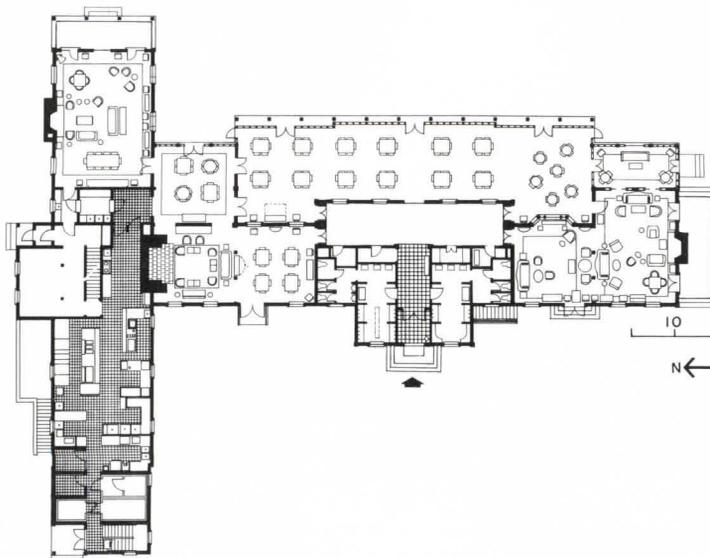
Except for being smaller than a typical Adler mansion, Booth/Hansen's 12,000-square-foot clubhouse (like its predecessor) adheres to the general model of the earlier architect's residential work. The similarity begins with a circuitous approach, where trees and terrain conceal the building until one emerges into a drive perpendicular to the front door. The ell of a kitchen wing on the left and an arc of pollarded lindens beyond an oval turnaround imply a forecourt which, in characteristic Adler fashion, dramatically subordinates asymmetrical elements to a focused composition. A central gap in the screen of trees emphasizes the vertical alignment of the pedimented entry and the cupola as a ceremonial landmark for the golf links. Though domestic scale and simple Georgian style play down the commanding gesture of a tower, a confident air of patrician ease remains the building's dominant note. Booth/Hansen has adopted Adler's most obvious borrowing from country-house tradition, an enfilade from the entrance (top photo opposite) to a corresponding portal on the garden front (bottom photo this page). The fenestration of the back porch echoes the symmetry of the west elevation while suggesting a more relaxed relationship of architecture to landscape. Even so, a regular network of paths, lawns, and serpentine walls alongside rocky bluffs above Lake Michigan become emblems of civilized order confronting nature's rougher edge. Viewed from the south (this page top), roofs, dormers, and porches seem to stretch toward the shore, in energetic contrast to the measured repose of the entrance facade. The jutting north wing also acts as a winter windbreak.







As in the lost clubhouse, a pine-paneled vestibule (opposite) extends from the front door to a cross-axial corridor linking the major "public" rooms. (Lavatories flanking the vestibule have no signs on the doors, on the principle that anyone who belongs here will know where to go.) Booth/Hansen doubled the width of the transverse corridor (upper photo this page) to eliminate bottlenecks created when the club opened its facilities to large parties and meetings that were unknown here in Adler's day. Wainscots, cornices, molded surrounds, and a fine set of Audubon prints lend the passageway a dignity it never had before, without violating the founders' notion of a cozy retreat from the opulence of other clubs and their own residences. Adler's plan combined the articulation of traditional rooms with the flowing spaces that were already a familiar aspect of American houses in 1923. Booth/Hansen has further developed this concept in its own multi-use plan, equally adaptable to formal receptions and to more intimate gatherings, while recreating specific elements of the original, such as the arcade that breaks down the L-shaped living room into two parlors (lower photo this page). A new refinement in the living room is a pair of sash windows and base panels that slide into wall pockets to give access to an adjacent porch often used as a bar. The botanical wallpaper was hand-painted in Hong Kong to recall a Chinese fabric Adler installed. A mixture of antiques and reproduction furnishings suggests a comfortable family interior that has grown over time (with the help of interior decorators) rather than a museum period room.



For the Governors' Room in the northeast wing (this page), Booth/Hansen reinterpreted 18th-century prototypes with panache. Strongly modeled details such as the pedimented overmantel thrust into the cornice, bold window surrounds, and a substantial breakfront trophy case together animate the plain enclosure of what would otherwise be an undistinguished chamber. Throughout, the clubhouse moldings have been adjusted to convey a hierarchy of architectural decorum, being relatively spare in the hallways, more complicated in dining areas, and most elaborate in the principal living room. In the latter space, for example, entablatures are convex where the wall plane below advances and concave where it recedes. (Adler, it is said, could instantly spot anomalies of scale in the execution of his designs, and once had the entire cornice of a large private library pulled down because it was a quarter-inch too wide.) Mullion profiles for the glassed-in porch (opposite) were devised with an eye to their definition in very different kinds of light, since the 88-foot-long verandah is the club's central gathering place day and night. Glazing bars also relate the window wall to the classical proportions of the main building, even suggesting voussoirs above the doors, and relieve the monotony of a continuous expanse of glass. Subtly staggered bays, painted floors, and herringbone ceiling slats (concealing acoustic batts) further help visually to subdivide the gallery into smaller-scale areas.



Golf club on Lake Michigan

Architects:

Booth/Hansen & Associates—
Laurence Booth and Paul Hansen,
principals; David Woodhouse, senior
associate; Keith Campbell, John
Shuttleworth, Susan Wood

Engineers:

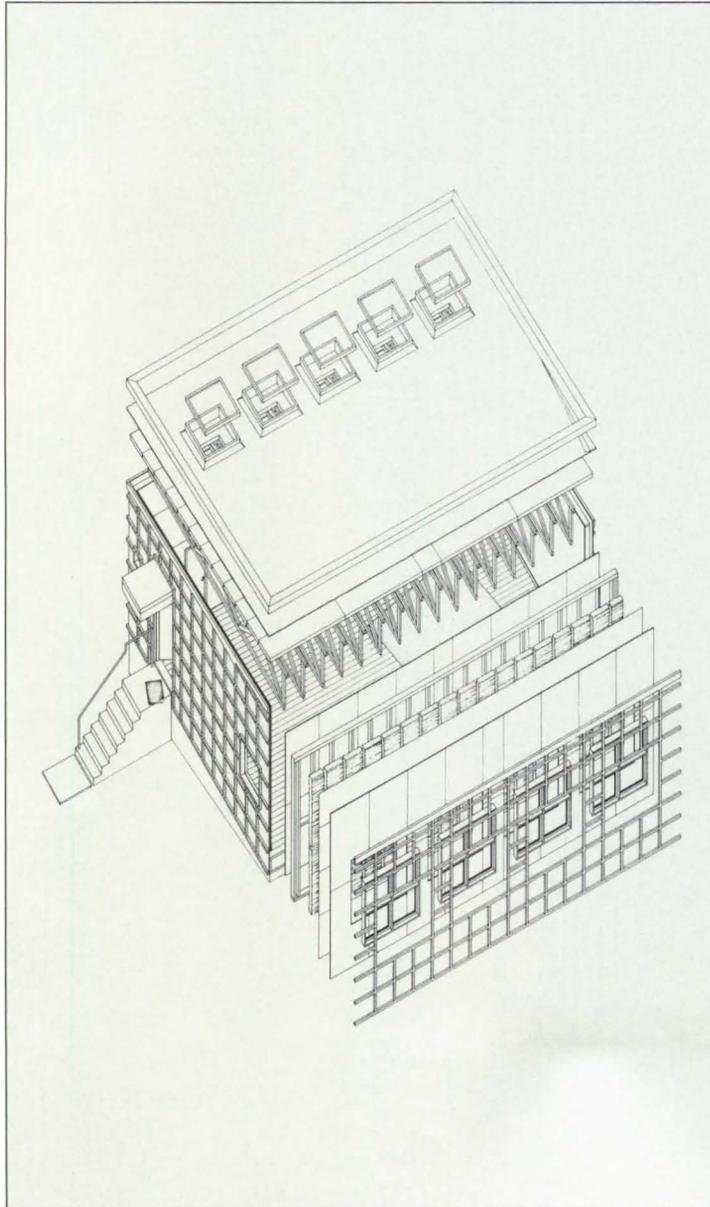
Beer, Gorsk & Graff Ltd.
(structural); V. A. Smith Co. (hvac);
Fettes, Love & Sieben (plumbing);
Shoreline Electric (electrical)

General contractor:

W. E. Olson Co.



Stylish modesty



Ames's exploded axonometric drawing demonstrates the studio's punctilious adherence to the 2-foot module: a 2-foot-square grid of wood battens outermost, then a layer of 4-foot-wide plywood panels, a layer of 2-foot-wide insulation batts, a row of wood studs 2 feet on center, and gypsum-board panels on the interior. (A layer of building paper between plywood and insulation ignores the whole thing.) Like the studs, roof trusses and joists beneath the floor are set 2 feet on center. Door, windows, and skylights likewise fall into line.

The definition of elegance, for art as for mathematics, might read, "Nothing left out, nothing left over." Such economy has nothing to do with money. The strictures apply equally to a megastructure built of marble and to a shed built of pine. What's more, however difficult and time-consuming the effort, the finished product must look natural, inevitable and—well, effortless.

Though the artist's studio shown on these pages is modest in size and function and economical in structure, architect Anthony Ames applied the rigors of classical simplicity, as filtered through similar rigors of the International Style, to the studio's design. The program called for a one-room building in the yard of an existing house, the room to have high ceilings and good daylighting. Ames, who has a penchant for axial formality, placed the studio's door on axis with a door from the house, then continued the axis with a circulation route beneath skylights to a square window in the end wall, and humorously interrupted the axis with an air-conditioning unit set with precision on the lawn outside. A vista across the lawn to bordering trees visually extends the axis. Along the axis within the studio, a thickened wall, which Ames calls "occupiable poché," contains plumbing and storage.

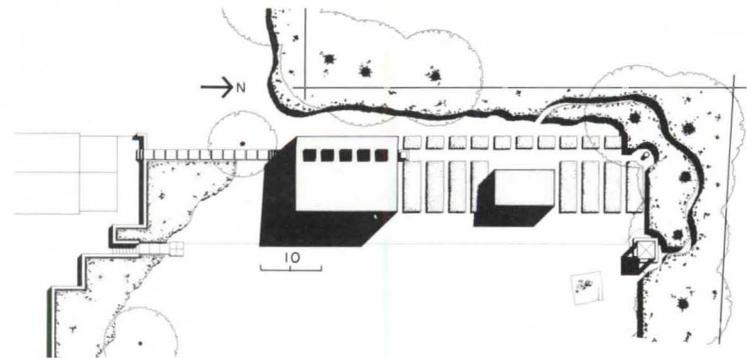
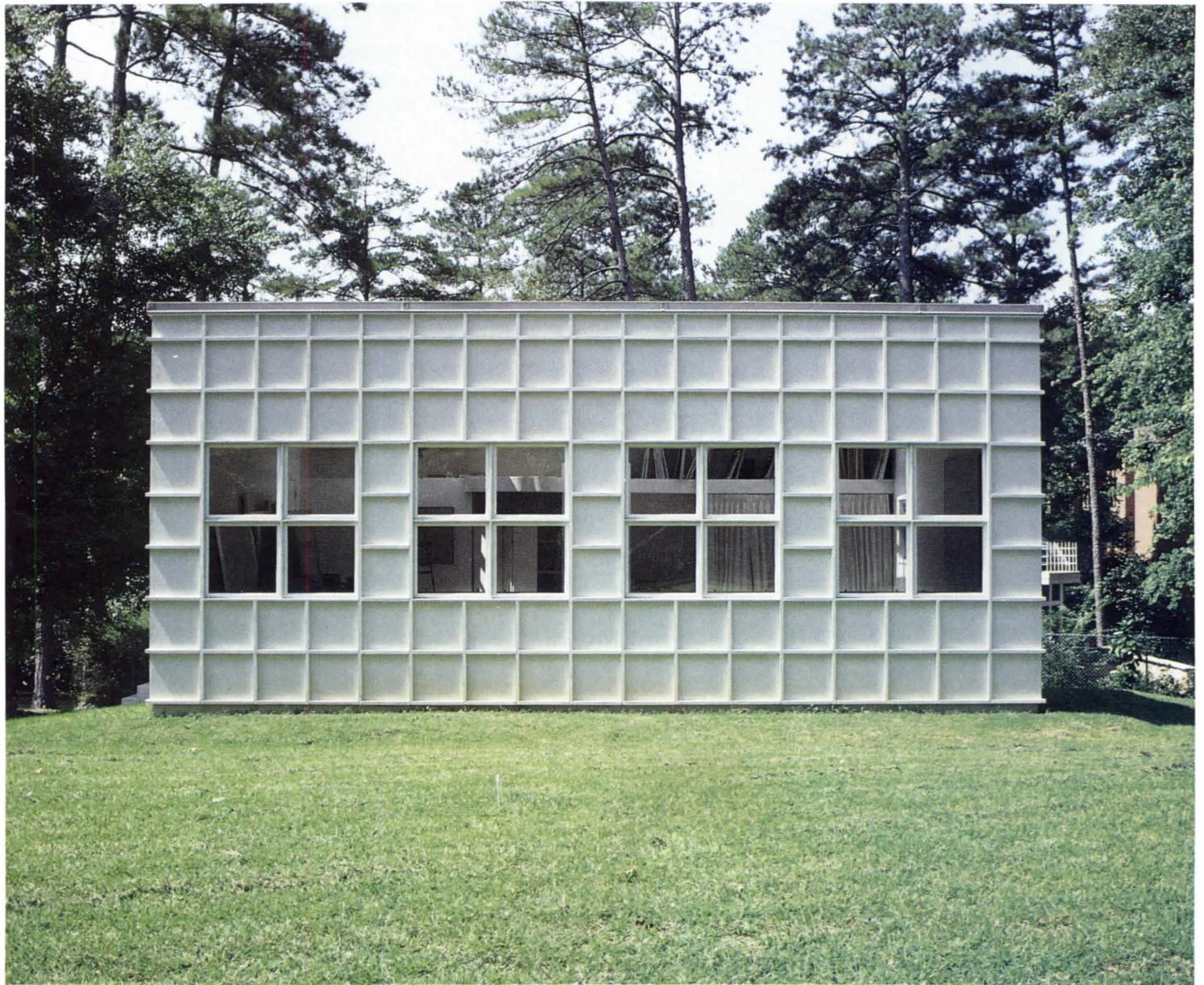
Though it would be pretentious to speak of the massing of one room, the form of the little studio is notably calm and unaffected. The proportions, true to the call of modern architecture for structural expression, derive from the 4- by 8-foot marine plywood panels that sheathe the walls. A 2- by 2-foot grid of battens overlies the plywood, covering the panel seams and at the same time establishing a constant rhythm. This pattern is enlivened by syncopation as the large windows, quartered into 3-foot square lights, march across the facade in controlled but opposing rhythm. Ames further varied the composition with a low frieze made up of fractions of the grid at the front edge of the shed roof.

More prosaically, perhaps, but still in strict obedience to the modern precepts of structural expression, the 2-foot module of the grid represents exactly the building's skeleton: roof trusses, floor joists, and studs are all on the same 2-foot centers.

Despite its modesty, the studio is not without touches of high style. The square has certainly become a fashionable motif of late, although the imposition of syncopated rhythm seems a new wrinkle. And what would postmodernism be without such mainstays as icons, contexts, and references? The same grid of battens satisfies these stylistic demands, too: it recalls the trellises that support roses and clematis on other Georgian walls. The square marquee over the door is Ames's personal homage to Le Corbusier. *Grace Anderson*



Anthony Ames photos



A long axis through the studio connects a door from the house and the studio door (below top left) with a square window in the middle of the axis at the other end of the studio. A vista of trees beyond the window (below top right) carries the axis still farther. The axis skirts a screened area containing toilet, kitchenette, and storage. The screen also accommodates the building's two relaxations of right-angled

geometry: the freeform "cloud" over the kitchenette door and the loose fall of drapery in front of storage space. The plain white paint that covers exposed trusses, gypsum-board walls, and thick wood box-car flooring emphasizes the simplicity of the room as well as the colors of the owner's paintings (opposite). In addition to their contribution to external composition, the 6- by 6-foot windows perform a couple of



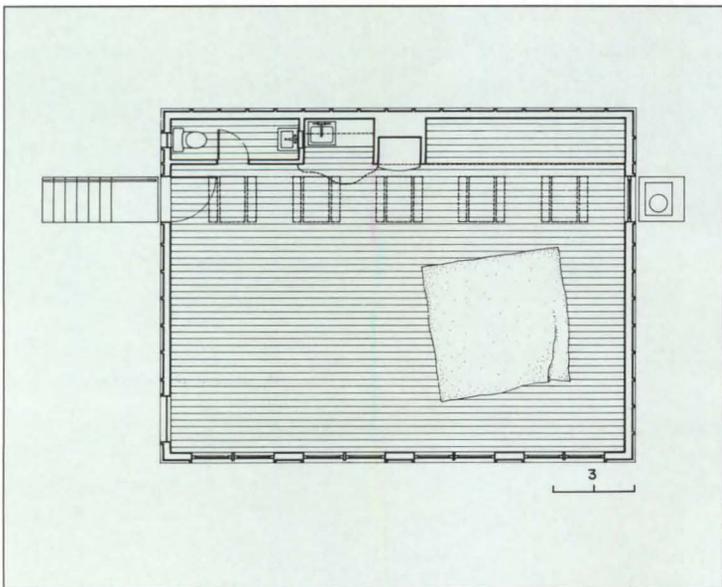
functional duties: in company with the skylights, they admit necessary daylight, and they allow the artist to keep an eye on her children as they play on the lawn.

Artist's Studio
Atlanta

Architect:
Anthony Ames—Margaret Minor,
William Pantsari, assistants

Engineers:
Jack Lynch & Associates (structural)

General contractor:
Sawhorse Inc.





Precast classicism

Since the early development of precast concrete construction technology in the 1920s, its use by architects in this country has not met the material's sculptural promise. For the most part, the material continues to be applied to industrial or speculative office buildings as flat, curtain wall paneling. But with the resurgence of classicism in architecture, the inherent repetitive and three-dimensional potential of precast finally has begun to be exploited, often as an economical alternative to stone. The clear frontrunner in this direction is Ricardo Bofill. With his firm, Taller de Arquitectura, he has skillfully molded concrete into classically ordered housing, located in the 14th *arrondissement* of Paris and in several new towns outside Paris, including Marne-la-Vallée and Cergy Pontoise (see following pages).

Regardless of how one feels about the success of these grand, Baroque-inspired compositions as housing, their virtuosity in manipulating commonly available precast techniques to achieve a strong, stone-like presence remains undisputed (photo opposite page). "I treat concrete like a noble material," asserts the Barcelona-born architect. His attitude reflects the best French tradition of concrete construction, a tradition noted for such masters as Auguste Perret, whose Cathedral for Raincy of 1923 is one of the earliest documented examples of precast. "Many architects feel modern technology prevents them from reinterpreting the past," notes Bofill. "But I have found that precast concrete's repetitive nature has helped me to perfect a consistent logic for a new classical language."

The ability of Bofill and the Taller to take advantage of the plasticity of precast underscores the necessity for architects to involve themselves with the constraints of the material and its methods, starting from design schematics, rather than solely relying upon a precast manufacturer's experience. "A full understanding of the building process must be gained in order to exploit precast's architectural expression," maintains Bofill. His sentiment is echoed by precasters in this country who often discover that the specifications for precast written by architects are too vague for the high degree of quality control which they demand. "In part, this is due to the fact that no prototypical specification exists for precast finishes or connections," points out Doug Lorah, vice president of High Concrete, a precast firm near Lancaster, Pennsylvania. "Architects need to come to the plant as soon as the first full-scale mock-up is cast to approve the quality of the concrete and establish an on-going dialogue with the precaster."

In designing the shape and joints of precast componentry, manufacturers recommend that architects determine the required number of casting repetitions and, to reduce costs, aim for the largest unit size possible without sacrificing structural or visual quality. Consideration should be given to the type of mold to be used, its casting orientation and the inclined allowance along the edges of the mold, called *draft*, that is required for unmolding the unit. The majority of elements composing Bofill's facades, for example, are cast in steel molds to ensure a minimum of deformity in casting repetitions, crispness of detail, and fewer surface voids or *bugholes* in the concrete. While the tooling costs to produce these molds are considerably higher than the cost of fabricating the veneered or fiberglass-coated plywood forms commonly used to cast concrete in this country, this initial investment proves economical for Bofill, given the vast number of times the molds are repeated within his projects.

Another important factor in sizing precast units is the choice of concrete finish. The visual quality of many finishes will not look the same on all faces of a unit, due to concrete mix proportions and flow. During concrete consolidation, gravity forces larger aggregates to the bottom of the mold, while the smaller aggregates, sand and cement are forced upwards. As a result, the concrete in the downward part of the mold's horizontal face will exhibit a more uniform and dense surface than the vertical returns of the same mold. Therefore, care should be taken to choose a suitable concrete mix with controlled gradation of

aggregates that are spherical rather than flat to ensure cohesion. A high water/cement ratio above 0.5 (300 lb water/600 lb cement per cubic yard of concrete) should be avoided, since it increases shrinkage, permeability, aggregate segregation, plastic cracking and decreases strength and durability. To reduce the amount of water needed to maintain proper concrete slump, precasters introduce an agent to the mix called a *super-plasticizer*. Similarly, *air entraining admixtures* are added to improve durability, cohesiveness and frost resistance.

The concrete developed for Bofill's projects by his long-time concrete consultant, Jean-Pierre Aury, shuns the exposed aggregate finish typical of precast in this country in favor of a continuously graded mix that is naturally pigmented by colored sand. The resulting pale yellow, pink and ivory tones of the concrete characteristic of Bofill's housing can be attained only through a high proportion of white cement added to the concrete mix. Although twice as expensive as gray cement, white is subject to less shading variations within one batch of concrete, and more accurately reflects the color of added natural or synthetic pigments, resulting in a broader range of color combinations. *External vibration* applied to the face of the molds (a technique preferred by European precasters over the more common North American method of *internal vibration*) ensures proper concrete compaction, eliminates air pockets and reduces the danger of damage to steel reinforcement bars.

In addition to color, the visual appearance of precast is altered by several types of surface treatment. A *smooth-as-cast* finish is the most economical, but is prone to absorbing form oils, water, and dirt faster than a treated face. One way of creating surface texture during the casting process is to insert a patterned wood, plastic or rubber *form liner* in the mold. Another way is to paint or spray a *chemical retarder* in the mold which delays the outer layer of cement from hardening. Once the remainder of the precast unit is hardened, this layer is removed by water-washing the exterior face to expose the concrete aggregate to the desired depth. *Sandblasting, acid-etching, honing* and *bushhammering* unmolded surfaces are still other techniques commonly used to vary surface texture and, like retarders, can be adjusted to varying degrees of aggregate exposure: *light exposure*, in which the surface skin is slightly removed to reveal the aggregate; *medium exposure*, in which both coarse aggregate and matrix are exposed; and *deep exposure*, in which the coarse aggregate becomes the dominant surface feature.

The surfaces of Bofill's precast typically are lightly exposed through either acid-washing, retarders or sandblasting, varied according to project specifics. By slightly altering the as-cast condition of the material, these finishes deepen the tone of the concrete, but tend to reveal any inherent deficiencies in the prefabrication process. To Bofill's credit, inconsistencies in surface finishes appear to be few, due in part to the three-dimensionality of the precast and careful detailing of connections.

Once designed, precast poses further challenges in terms of shop drawing review, quality control of fabrication and on-site erection. Architects should be aware that quality control is not limited to the casting process. Components that passed inspection in the plant may be damaged in transit to the site and during the actual installation, which may be handled by a subcontractor, not the precast manufacturer. For the uninitiated, the lengthy process required of precast design and specification should begin with the advice of architects and engineers experienced in designing with the material as well as a complete survey of locally available precast talent. (A good place to start is the Prestressed Concrete Institute in Chicago, whose guide to architectural precast currently is being revised.) More fundamentally, this process should be undertaken with an understanding that the material is only as limited as an architect's imagination. As Bofill succinctly states, "If you can build the mold, you can build the design in precast."

Deborah K. Dietsch

Neo-Baroque in Paris

This 274-unit housing project recently was completed as part of the renovation of an area near the Montparnasse railway station in the 14th *arrondissement* of Paris. On the street, two blocks of apartments and ground floor shops are united by a continuous, pedimented facade. An elliptical courtyard and an amphitheater-like plaza are carved from the center of these blocks, a Baroque device borrowed by the architect to organize all his housing.

The basic structure of the complex is built from reinforced, concrete shear walls, poured in place with steel formwork, that support precast floor slabs finished in screeded concrete. This type of construction was chosen as a fast-track alternative to the firm's previous experience with poured-in-place concrete tunnel systems. Tied back into the structure are 3,400 reinforced precast concrete units, most load-bearing and all prefabricated in steel molds by a local manufacturer. The majority of the precast elements is reserved for the amphitheater with its rhythm of overscaled pilasters and curved balconies (following two pages). In contrast, the elliptical courtyard is articulated by semi-reflective glass columns, juxtaposed against precast columns at its entrance (photo opposite page).

The molds for the precast were designed by the architects with the simplest of classical language. Pediments and their supporting pilaster capitals actually are cast as one unit from a series of stepped back, shallow profiles to convey depth from a distance (photo lower right). In section, the precast is detailed to disguise connections and expansion joints (drawings overleaf). The entablature, for example, that crowns both the interior courtyard and exterior street walls consists of a separately cast cornice, architrave and windowed frieze. Once erected, the connections between each component are concealed by 3-foot by 6-foot triglyphs positioned over joints within the frieze. Similarly, pedimented window surrounds are aligned with joints in adjacent flat panels (photos at right) and connections between column segments aligned with joints at floor slabs to provide visual continuity (photo opposite page).

The color of the concrete was achieved by combining Seine River sand and yellow silicate with white concrete to produce a mix with a compressive strength of 40 MPa (about 6,000 psi). "We tried to simulate the solidity of the *Hôtel de Ville*'s yellow limestone," explains concrete consultant Jean-Pierre Aury. Each unit was immersed in a hydrochloric acid bath to lightly etch its exposed face.

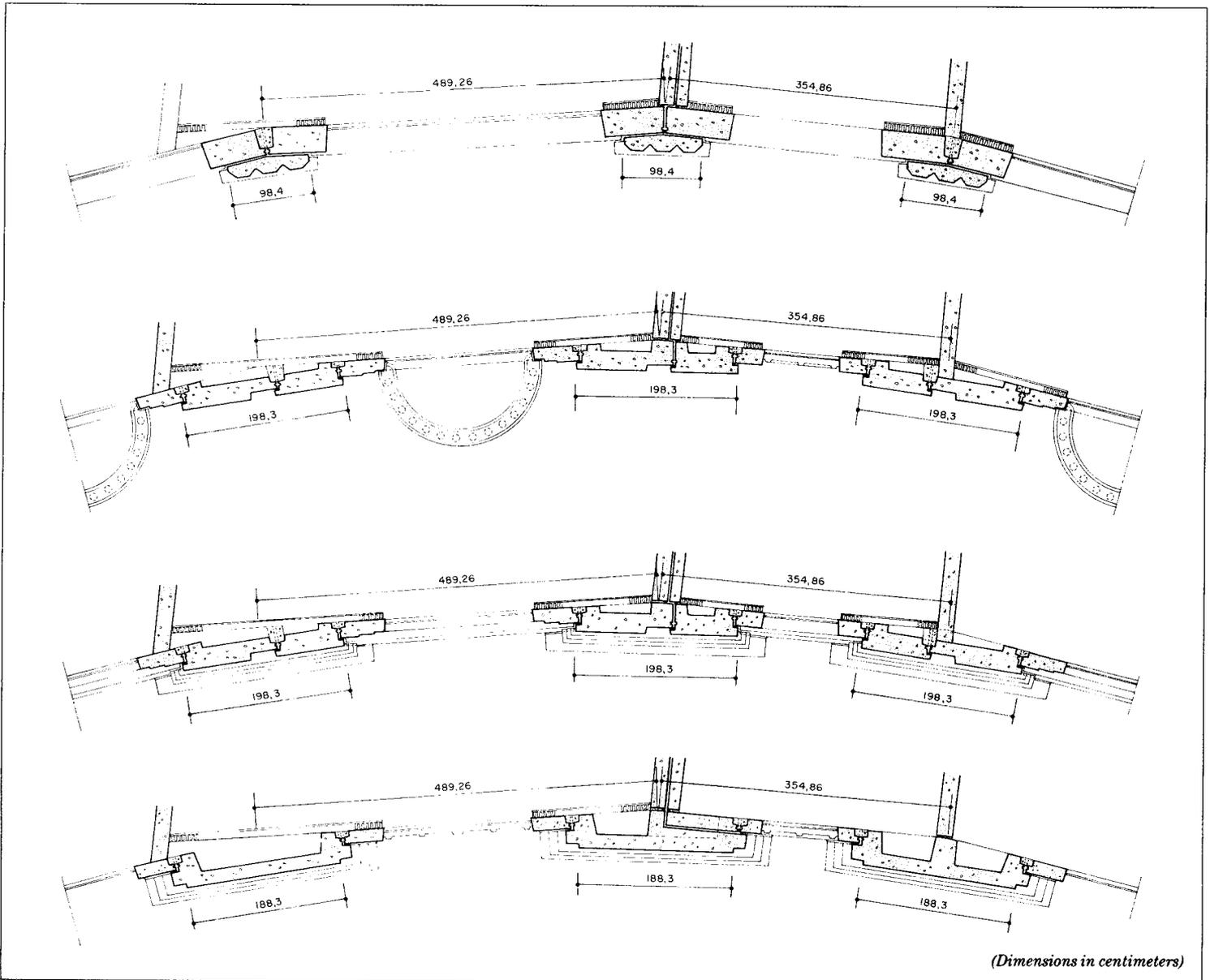
Deidi von Schaewen





Plan sections (below) through the curved wall of the amphitheater (photo opposite page) reveal how carefully the precast is detailed to conceal all joints in elevation: triglyphs cover frieze panel joints (top section); the 11-1/2-inch-wide space between pairs of pilasters actually is cast as part of the left pilaster (middle sections); and the load-bearing, precast pedestal that supports the pilasters on the first

and second floors includes a connection to the internal shear wall (bottom section). All joints are staggered, stepped back from the surface and caulked. Pin connections between the precast and the primary structure are grouted and protected with neoprene gaskets. Curved balcony railings and balusters are cast as one unit and pinned to one foot-deep, faceted floor units (photo opposite page).



(Dimensions in centimeters)

Les Échelles du Baroque
Paris, France
Client:
Société Anonyme de Gestion Immobilières
Architects:
Taller de Arquitectura—Ricardo Bofill, principal; Patrick Dillon, Patrick Genard, Xavier Llistosella, Thierry Recerski, design team; Ramón Collado, Hilario Pareja, construction team

Engineer:
Yves Serra
Concrete consultant:
Jean-Pierre Aury
General contractor:
S.C.G.P.M., Campenon Bernard Construction
Precaster:
S.I.P.A.V.



12

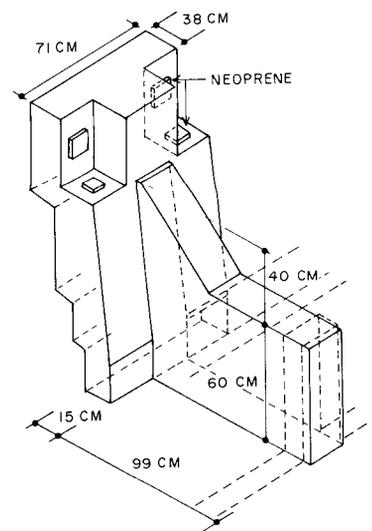
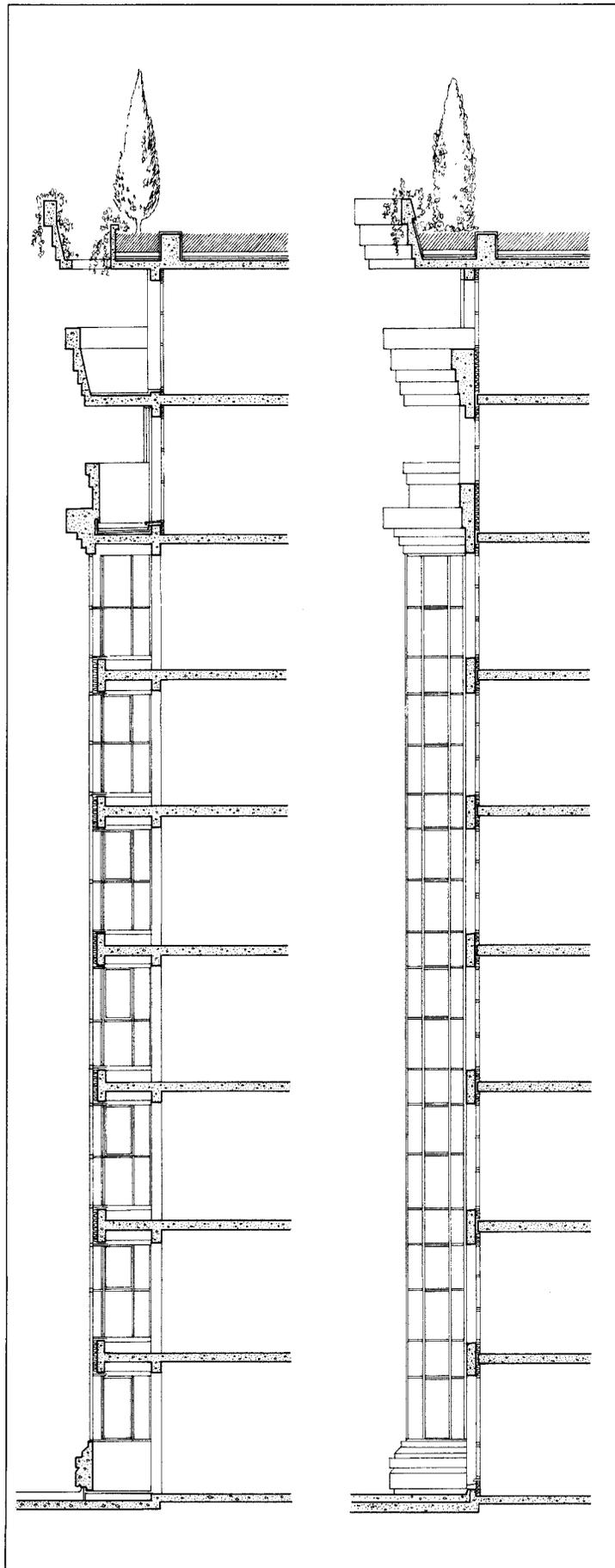
The theater, the palace and the arch

Named for the Mesopotamian symbol of both good and evil, the Spaces of Abraxas complex appropriately has proved to be the most controversial of Bofill's housing schemes since it was completed in 1982. As a subsidized "Versailles for the people," it consists of a 9-story "theater," a 19-story "palace," and a 10-story inhabitable triumphal arch, all axially arranged on a prominent site within the new town of Marne-la-Vallée, located just outside Paris.

The construction of these buildings represents the architect's first, full-fledged foray into precast classicism, and is marked by a more experimental approach to the technology with less literal interpretation of historical detail than his more recent projects. Over 6,000 elements were cast for the vast scale of the complex, using a total of 90 steel molds, including exterior stairs, aediculae (photo opposite), and street furniture. The tied-back precast panels act as a diaphragm in reinforcing the primary structure of concrete shear walls and floor slabs, poured in place with steel formwork.

Like the courtyard of Bofill's Paris project, the Abraxas theater's concave interior facade is surrounded by semi-reflective curtain wall columns. In this case, however, they are capped by a series of Art-Deco inspired, faceted balconies and parapets with cypress trees planted above (sections and photo opposite). The projecting bays of the parapet are formed from three precast units, linked together by a 52-inch-high, 27-inch-wide section with integrated console. Neoprene-studded notches allow for movement of supported, adjacent parapet units (axonometric). On both exteriors of the palace block, columns are paired and inverted as concave forms to distinguish an otherwise straightforward use of precast paneling (following pages). The building's projecting entablature features two-story-high, precast triglyphs and blue tile cast into the concrete as a veneer.

The polychromy of the concrete—ranging from pink to light brown—was achieved by varying proportions of gray and white cements with yellow Seine River sand and red, porphyry aggregate in the mix. In addition, the colors were intensified through light exposure to a sprayed-on chemical retarder in the molds. Once erected, the concrete surfaces of the Piranesi-like internal street of the palace and its broken pedimented exterior were impregnated with a brick red, oxide-based stain called "prelor." It is both a low-cost alternative to adding synthetic pigments to the concrete mix and is more permanent than paint.

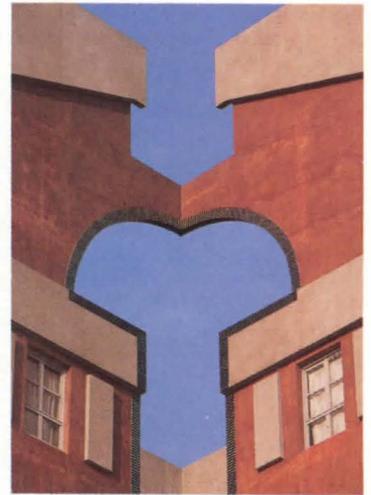
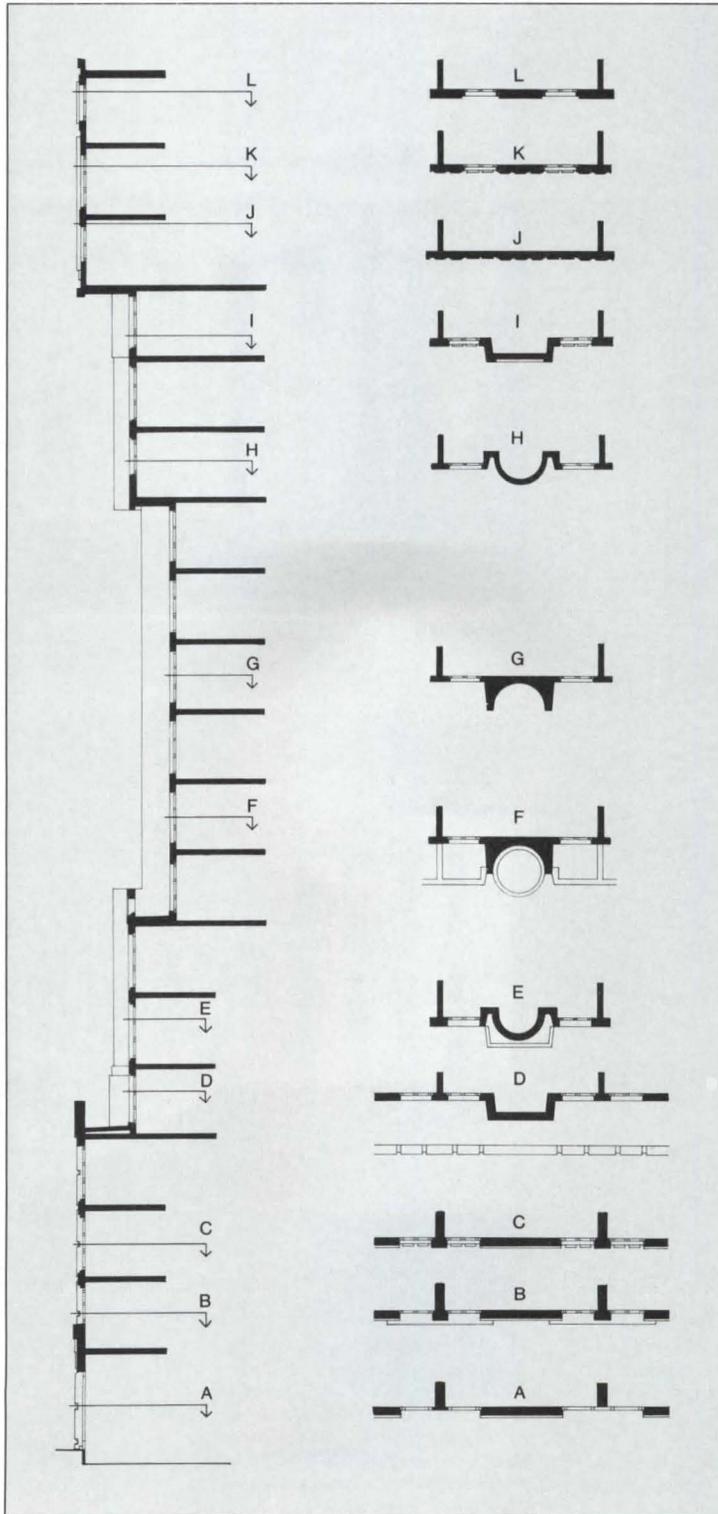






Many of the stylized, classical elements of Marne-la-Vallée are repeated on the triumphal arch and palace courtyard elevations, cast from the same steel molds (photo opposite page). All the stairs, arches, columns, balustrades and planters that furnish the courtyard are assembled from precast units and covered with an anti-graffiti, plastic emulsion paint. Sections through the cantilevered, exterior wall of the

palace (below) reveal the 10-inch thickness of the flat, precast sections and show how the 41-inch radius column shafts are inverted to form concave, "voided" columns on floors 7 through 13. The as-cast concrete surfaces of the palace's pedimented corners and its rusticated, interior street walls are impregnated with a red oxide stain that gives the appearance of a watercolor glaze (right photos).



Deborah Drietsch

Deborah Drietsch

L'Espaces d'Abraxas
Marne-la-Vallée, France
Clients:
Comptoir National pour
l'Habitation 2000, (palace); S. A.
Habitations Loyers Modérées les
Trois Vallées, (theater and arch);
Architects:
Taller de Arquitectura—Ricardo
Bofill, principal; Peter Hodgkinson,
Jean-Pierre Carniaux, Xavier
Llistosella, Patrick Dillon, design

team; Ramón Collado, Thierry
Recevski, Hilario Pareja,
construction team
Engineer:
Yves Serra
Concrete consultant:
Jean-Pierre Aury
General contractor:
Bouygues S. A., Coignet
Precaster:
I.B. Morin; Entreprise EPI

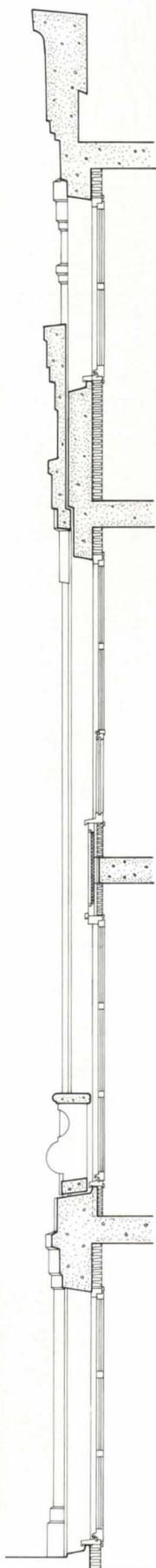
New Georgian, new town

The Belvedere housing in the new town of Cergy Pontoise to the north of Paris marks a departure from Bofill's previous approach to precast concrete construction. Inspired by the Georgian architecture of Bath, England, (and duly dubbed "The Green Crescent" by the architect), the cladding of the two, 4-story courtyard blocks (photo bottom right and opposite), and classical order of the 7-story crescent (photo top right) were cast on site rather than in a factory. This method was favored for its speed of construction and cost-effectiveness, given the small scale of the project which comprises 380 apartments and ground-floor shops.

Like factory prefabrication, the on-site casting process involved pouring concrete into pre-assembled, steel molds, externally vibrated at 9,000 rpm, that were reused an average of 42 times. Complicated unit shapes such as the pilasters and false-jointed panels of the courtyard blocks (photo opposite) were unmolded using a wax release agent and injected, compressed air, released through three-millimeter holes in the sides of the molds. To cast the capitals of the crescent's overscaled columns, the original orientation of the molds was changed from a horizontal to a vertical direction to obtain a more distinctly Doric profile. The units were unmolded by means of steel lifting handles cast into the wet concrete, subsequently used as ties in connecting the precast to the primary structure.

Only two elements of the courtyard block facades were conventionally prefabricated in a factory: the balcony balusters, cast in rubber molds, and window pediments, cast in steel (photo opposite page). These elements are hung on the facade as decorative appliqué and are supported by means of aluminum alloy anchors, wet cast into the units, that are bolted into steel angles in the wall (section at right). The connections occur just below the top and consoles of the pediment, and on either side of the balcony balustrades.

A nearly white concrete finish was specified for the project "to contrast with the low clouds and gray skies of the area," according to project director Ramón Collado. It was formulated by combining a very clear, yellow Seine River sand and white, Picketty aggregate with white cement. A plasticizing agent was added to the mix to promote concrete flow and a compressive strength of 30 MPa (about 4,500 psi) at 28 days. Once cast, the concrete surfaces, originally intended to be lightly sandblasted, were left untreated due to their finely grained appearance after casting.



The Green Crescent
Cergy Pontoise, France

Client:

Foyer du Fonctionnaire et de la Famille (housing); Sodes (shops)

Architects:

Taller de Arquitectura—Ricardo Bofill, principal; Peter Hodgkinson, Patrick Genard, Rogelio Gimenez, design team; Ramón Collado, Patrick Genard, Thierry Recevski, Martin Andujar, Phillippe Guionni, Mike Lindstrom, Hilario Pareja, Jose Maria Rocias, Eric Ryser, Fernando Trueba, construction team

Engineers:

Yves Serra; Sogelerg

Concrete consultant:

Jean-Pierre Aury
General contractor and precaster:
Bouygues S. A.

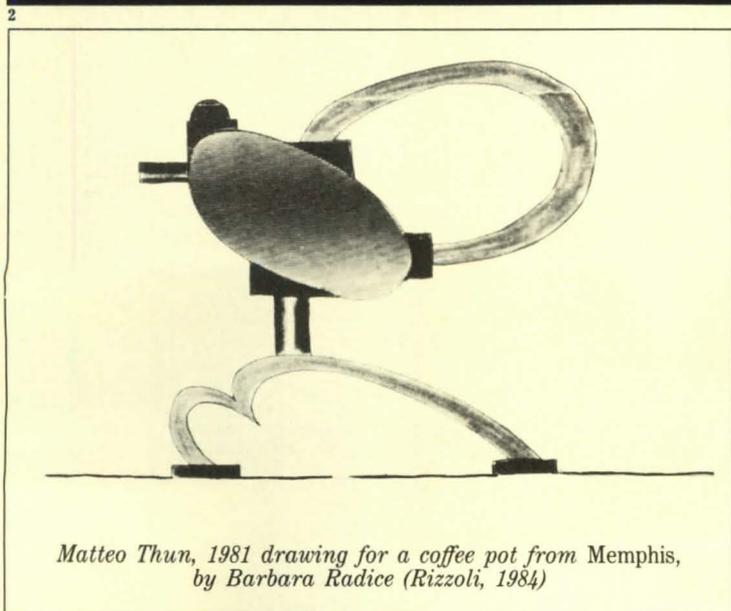


New products

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1. Ionian mirror; Michele De Lucchi.
2. Gloria light fixture; Marco Zanini.

3. Onion fruit bowl; Nathalie du Pasquier
4. Rosella light fixture; Marco Zanini.



Matteo Thun, 1981 drawing for a coffee pot from Memphis, by Barbara Radice (Rizzoli, 1984)

Breaking away

Five years after their debut and an equal number of openings later, Memphis—the collective of Milanese architects and artists—continues to design furnishings and domestic accouterments that can only be characterized by their relentless assault on the senses. The actual unveiling of a new collection during the annual Milan Furniture Fair in September was somewhat surprising since the 1984 publication of a seemingly definitive portfolio by the group's art director Barbara Radice appeared to welcome, if not actually beckon, the movement's conclusion. In fact, in the book's introduction Ettore Sottsass, Memphis's recognized ringleader, wrote, "This is an old, a very old story, and the plan certainly is not to give way to nostalgia . . . If there is a plan, it is to defy this old story . . . and to

imagine everything that has been deposited in this book as an accident, just one among many of the possible accidents." And with this counsel in mind, perhaps, the group itself has splintered and several former members, including architect Matteo Thun, are now designing products for a growing assortment of other furniture and lighting companies.

Even though the consensus from within may be that it is time to move on, the international appropriation of the untrademarked Memphis label—now proudly slapped on to the packaging of everything from a pair of New York City apartment buildings (RECORD, December 1985, page 26) to bed sheets—has kept the name, if not the movement, alive.

Although Memphis's esthetic agenda has by now lost the impact of a surprise attack, the group's

5. Mamounia armchair; George J. Sowden.

6. Cabbage, Pepper, Radish teapot, cup, and sugar bowl; Aldo Cibic.

7. Ivory side table; Ettore Sottsass.

8. Daisy side table; Martine Bedin.

9. Squash ashtray; Maria Sanchez.

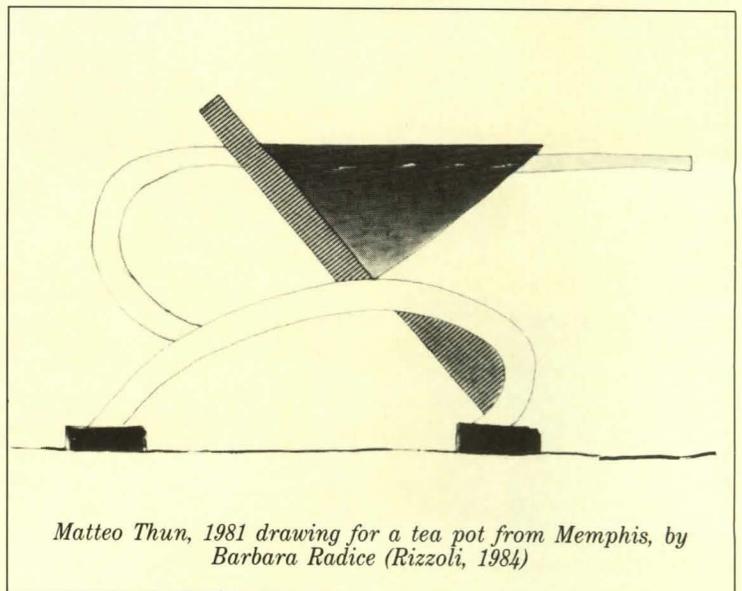


newest items are predictable only by their oddity. Constructed from assemblages of plastic laminate, reconstituted veneers, lacquered wood, metal, glass, ceramic, and fabric, the pieces are three-dimensional collages of materials, textures, and colors. And though similar in intention to the first pieces that appeared in 1981, the expanded collection is no longer considered to consist of slanderous "put-ons" nor nihilistic proclamations, but of serious experiments in design.

Since the experiments are intentionally reaction-oriented, over the past several years the designers have had the difficult task of producing progressively more shocking items. Such exhibitionism is not only an appeal for attention, but, as such, it is also a criticism of work that pays lip service to "form follows function" design. The

Memphis designers, however, are by no means staging an assault on functionalism; rather, they would probably see themselves as allies of their modernist colleagues, fighting the common enemy of stylistic stagnation.

During the 1950s Sottsass wrote admiringly of American designer Charles Eames that "when [he] designs his chair, he does not design just a chair. He designs a way of sitting down." He emphasized, in other words, that Eames "designs a function, not for a function." And in its parallel attempt to broaden *stylistic* definitions, Memphis did in fact design a style and not for a style—a style that, as today's more receptive climate and overabundance of derivatives can attest, has become almost mainstream. *K. D. S. Memphis Milano, New York City. Circle 300 on reader service card*



Matteo Thun, 1981 drawing for a tea pot from Memphis, by Barbara Radice (Rizzoli, 1984)



Reflective panels

Panels that consist of a clear, metalized film stretched over an aluminum frame are featured in a 4-page color brochure. The panels are available in silver, gold, bronze, and black and are intended for use on ceilings and walls. Mirrex Corp., Hillside, N. J.

Circle 400 on reader service card



Lighting posts

Cast-iron lighting posts available with incandescent, mercury vapor, metal halide, or high-pressure sodium light sources are featured in a 4-page color brochure. Photographs show a variety of different styles. Spring City Electrical Manufacturing Co., Spring City, Pa.

Circle 406 on reader service card



Glazing systems

An 8-page color brochure includes detail drawings, installation photographs, and technical information that describes two new glazing systems for solarium applications. The glazing systems can span depths of up to 18 ft 9 5/8 in. and heights of up to 25 ft 8 7/8 in. Habitek, Inc., Norristown, Pa.

Circle 401 on reader service card



Space frame systems

The manufacturer's space frame systems feature steel channel members that can be assembled in standard-size 4-ft and 5-ft grids. A 14-page color brochure reviews specifications for several different systems and includes technical data on major system components. Unistrut Building Systems, Div. of GTE Corp., Wayne, Mich.

Circle 407 on reader service card



Marble

Jura Marble imported from West Germany is depicted in a 12-page color brochure. Photographs show a variety of applications. The marble's resistance to inclement weather, pressure, and abrasion is reviewed in the literature. Solnhofen Natural Stone, Inc., San Francisco.

Circle 402 on reader service card



Glazing

The features of vertical, overhead, thermal, and bullet-resistant high-security glazing are reviewed in a 20-page color brochure. Photographs show a variety of installations, and the text lists suggested applications. Lexan Products, Div. of General Electric Co., Pittsfield, Mass.

Circle 408 on reader service card



Partition components

Systems/Ultrawall components permit cabinets, work surfaces, and additional accessories to be suspended from the manufacturer's movable partitions. A 22-page brochure includes color photographs of 24- and 30-in. face panels that come prefinished with *Textone* vinyl. United States Gypsum Co., Chicago.

Circle 403 on reader service card



Ceramic tile

A 20-page color brochure features the manufacturer's line of wall and floor ceramic tile. A chart lists the uses, available sizes and finishes, water absorption rate, breaking strength, frost resistance, and glaze hardness of each product. Monarch Tile Manufacturing, Inc., San Angelo, Tex.

Circle 409 on reader service card



Radiant floor heating

A 6-page color brochure includes information on radiant heat flooring. The electric-cable or hydronic-piping heat systems are said to produce an efficient heating source when embedded in the manufacturer's floor underlayment. Gyp-Crete Corp., Hamel, Minn.

Circle 404 on reader service card



Conference tables

The *Director Series* of conference tables can be specified in a variety of shapes, sizes, and wood and inlay combinations. An 8-page color brochure includes photographs of radius, round, mitered, and double-mitered table top edges. A selection of pedestals is available. The Gunlocke Co., Wayland, N. Y.

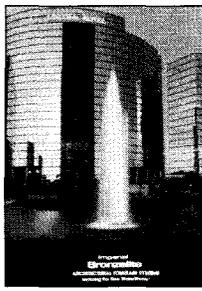
Circle 410 on reader service card



Structural steel

A high-frequency forge welding process and a variety of structural steel shapes are described in an 8-page color brochure. The production of standard and custom-size symmetrical and asymmetrical shapes up to 60 ft long is reviewed in the literature. Welded Beam Corp., Perry, Ohio.

Circle 405 on reader service card



Fountains

A 40-page color catalog includes mechanical and design/specification information for architectural fountains. Individual water effects, waterfall design, underwater lighting, and site considerations are reviewed in the literature. Imperial Bronzelite, San Marcos, Tex.

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Architect: Henry Iggena

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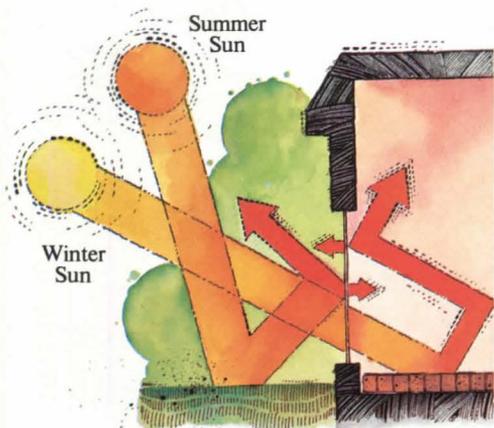
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But our High-Performance insulating glass is



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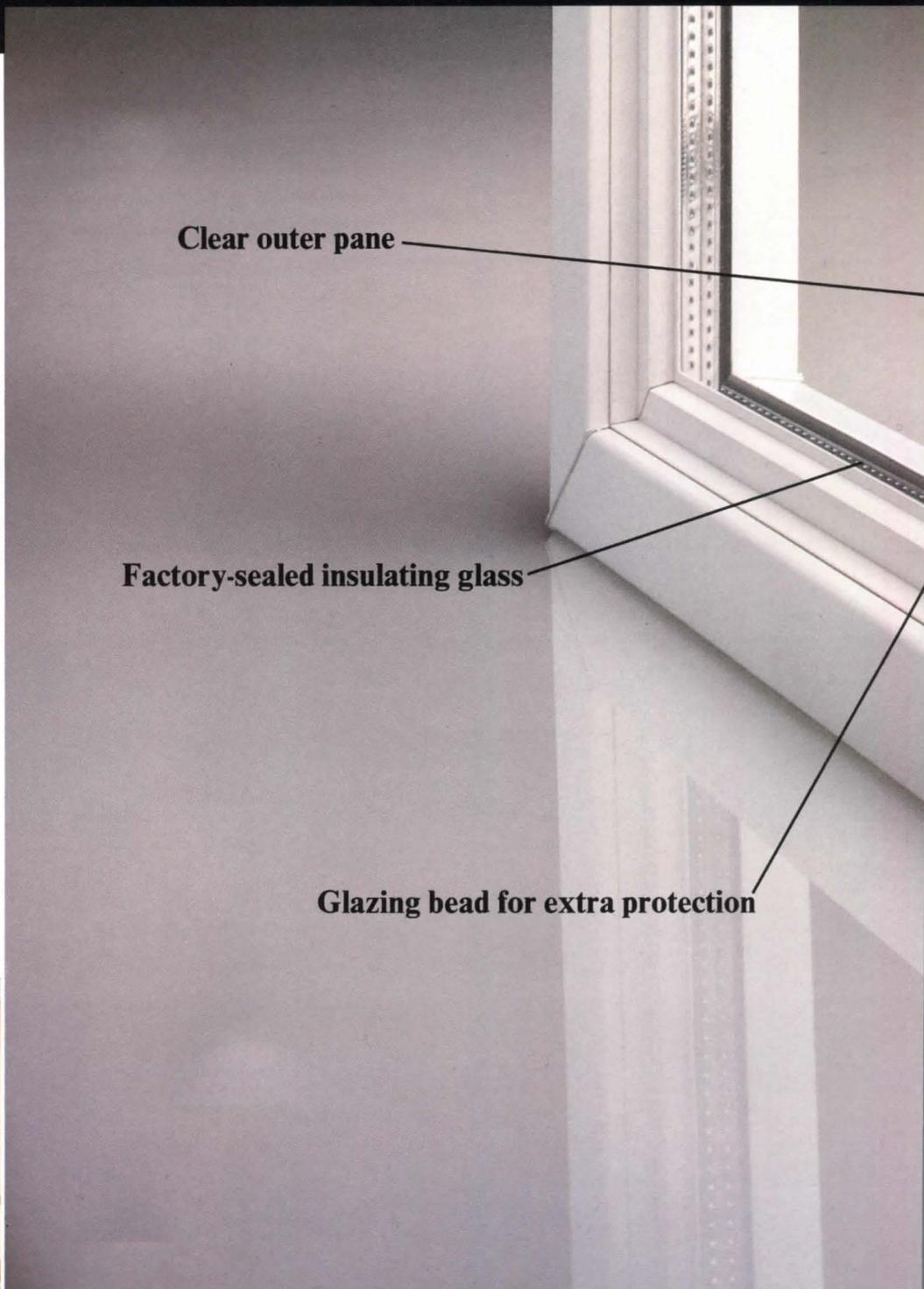
A special transparent coating on our High-Perform-

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And since our special coating restricts radiant heat flow, this warmth will have trouble escaping.



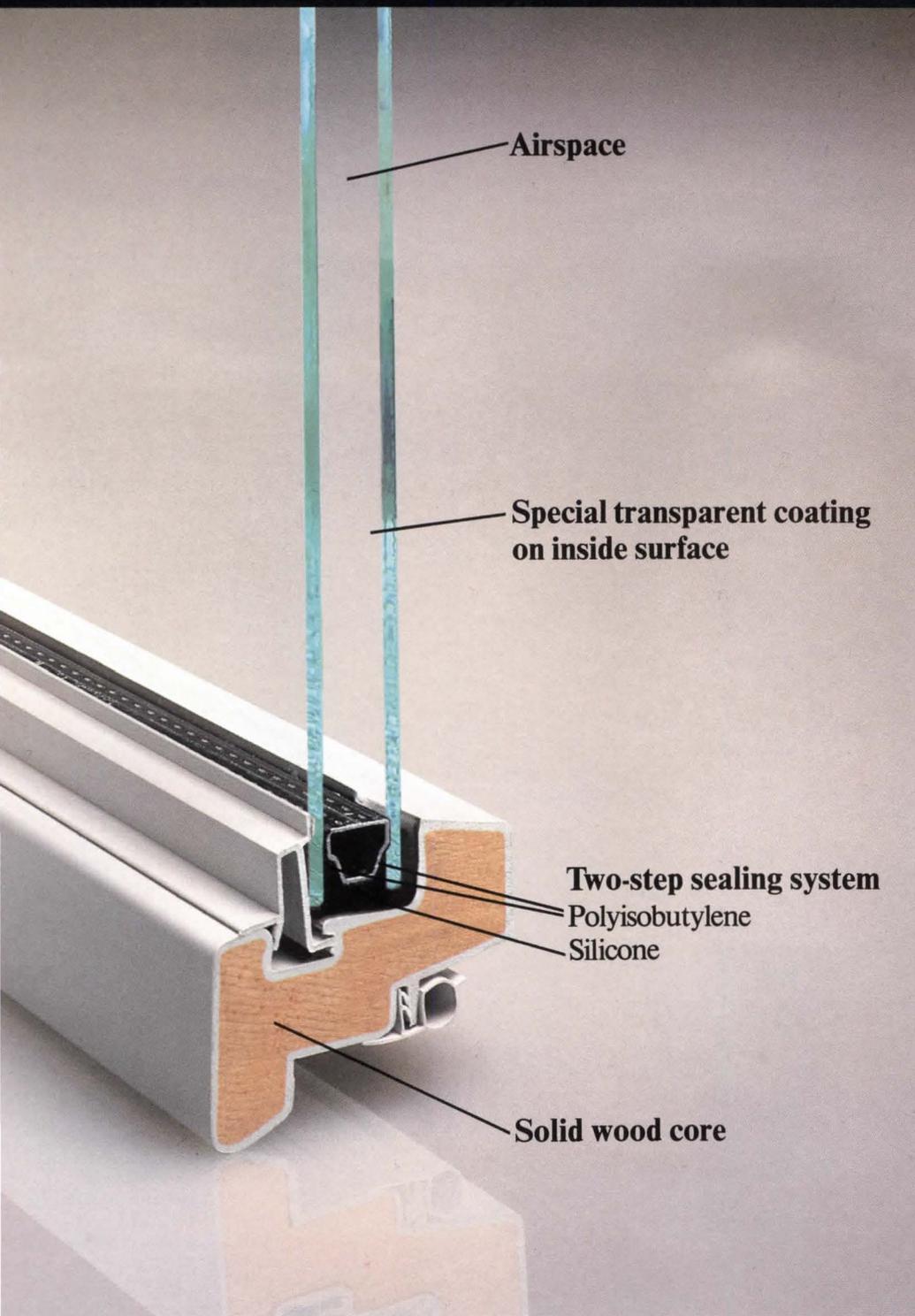
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Glazing bead for extra protection

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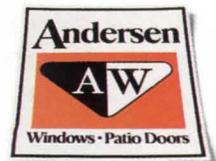
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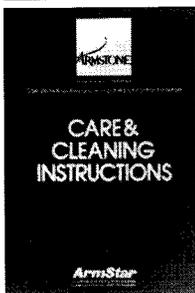
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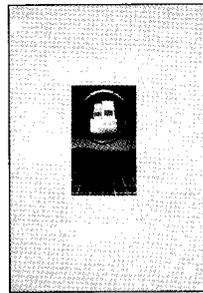


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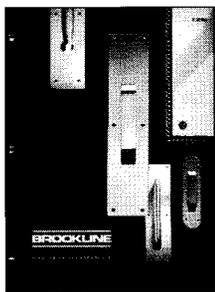
Cast stone

A 4-page brochure includes maintenance and cleaning suggestions for the manufacturer's *Armstone* cast-stone floor tiles and wall panels. The 90 percent marble tiles and panels are available in two sizes and in a selection of colors. ArmStar, Lenoir City, Tenn.
Circle 412 on reader service card



Ballasts

A line of fluorescent and HID ballasts is described in a 44-page catalog. Application data, dimensions, and specifications for each product are included in the literature. Jefferson Electric, Div. of MagneTek, Inc., Downers Grove, Ill.
Circle 418 on reader service card



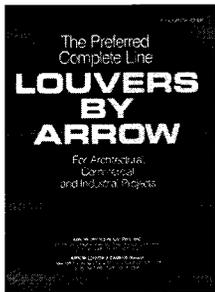
Door pulls

Door pulls, plates, and additional hardware are featured in a new 12-page color brochure. Push/pull sets, signage, engraved name plates, and push and kick plates are illustrated in the literature. Available finishes are listed. Brookline Industries, Inc., Chicago.
Circle 413 on reader service card



Epoxy powder coatings

A color chart that includes 17 polyester/polyurethane and 12 epoxy powder coatings is featured in a 4-page brochure. The coatings are intended for furnishing and appliance applications and are said to produce a smooth, even finish. Ferro Corp., Cleveland.
Circle 419 on reader service card



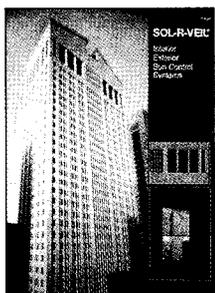
Louvers

A line of stationary and operable louvers is featured in a 16-page catalog. Diagrams show different sizes with a variety of blade configurations. Specifications and performance data are included in the literature. Arrow United Industries, Inc., Wyalusing, Pa.
Circle 414 on reader service card



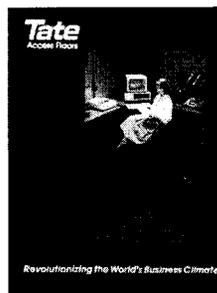
Built-in fireplaces

A 4-page brochure includes color photographs showing how tile, stone, bookshelves, and wood facings can be used to create fireplace surrounds, hearths, chimneys, and mantels. Freestanding and built-in fireplace units are illustrated in the literature. Preway, Inc., Wisconsin Rapids, Wis.
Circle 420 on reader service card



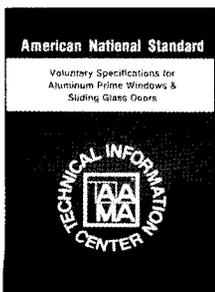
Sun control

An 8-page color brochure describes the manufacturer's interior and exterior sun-shading systems. Installation photographs show manual and motorized systems. Diagrams of construction details are included in the literature. Sol-R-Veil, Inc., New York City.
Circle 415 on reader service card



Air distribution

The *Task Air* underfloor air distribution system is featured in an 8-page color brochure. Diagrams and text explain how conditioned air is drawn under the floor and delivered into offices through access modules. Tate Access Floor, Inc., Jessup, Md.
Circle 421 on reader service card



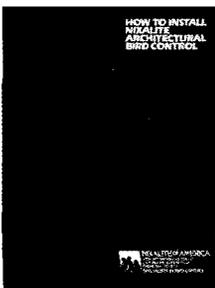
Aluminum windows and doors

A 36-page booklet reviews voluntary specifications for aluminum windows and sliding glass doors. Performance requirements for different window types—including casement, awning, top-hinged and pivoting windows—are reviewed. American Architectural Manufacturers Association, Des Plaines, Ill.
Circle 416 on reader service card



Tile

A 14-page color guide reviews a number of applications—including residential and commercial interiors—for the manufacturer's line of quarry tile. A variety of different tile sizes, shapes, and colors is shown in the literature. American Olean Tile, Div. of National Gypsum Co., Lansdale, Pa.
Circle 422 on reader service card



Bird control

Stainless-steel needle strips designed to protect buildings and statues from nesting birds are described in a 20-page brochure. Diagrams show a variety of applications, and the text lists installation and maintenance requirements. Nixalite of America, East Moline, Ill.
Circle 417 on reader service card



Floor closers and pivots

A line of floor closers, pivots, surface-mounted door closers, door holders and stops, electromagnetic door releases, overhead concealed closers, and smoke-actuated door closers is featured in a 12-page color brochure. The products are said to have a high resistance to heavy use. Rixson-Firemark, Franklin Park, Ill.
Circle 423 on reader service card

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Electrical Marketing • Engineering News-Record/International Construction Week • Sweet's Division



DODGE MAJOR PROJECTS SERVICE IS NOW "UNBUNDLED"; LESS COSTLY OUTPUTS WILL BENEFIT REGIONAL BLDG. PRODUCT MANUFACTURERS AND DISTRIBUTORS.

DMP service was formerly available only on a wide-area basis, used mainly by major manufacturers, insurance companies, etc. In a nutshell, DMP reports only on jobs over \$750,000 in 83 project categories; optional customized features include automatic personalized letters provided to subscribers for use with sales literature mailings timed for specific jobs; customized call report systems; management summary printouts.

"Unbundled" version of DMP lets subscribers buy areas as small as 3-4 states, gives regional players opportunity to use same sophisticated marketing tools as national firms. Even stripped of customized features, service is invaluable for competing on the 15% of jobs that account for 85% of building dollars. Circle 61 on inquiry card

COMPUTER USAGE IN CONSTRUCTION FIRMS; RECENT ENR READER SURVEY REVEALS BUYING PATTERNS FOR HARDWARE/SOFTWARE AND IDENTIFIES INDUSTRY NEEDS.

Here's how far computers have come in construction firms; a 1985 survey of Associated General Contractors (AGC) asked what types of information they look for in a construction magazine. "Use of Computers in Construction" was tied (5th place) with "Construction Equipment Usage."

Another study is even more revealing. Engineering News-Record commissioned "The 1985 Computer Market Study" among ENR readers. The 63-page report ranks hardware and software models/brands used, applications, and needs/trends.

Sample Findings:

—Purchase Influence: Engineers have most say in hardware/software specifications, according to 49% of respondents. But 82% say Top Management makes the final decision.

—Preferences: Even when manufacturers/dealers are considered leaders in their categories, they aren't necessarily the brand preferred.

—Confusions: Many respondents confuse various types of computer hardware, e.g. microcomputers with minicomputers. And interestingly, IBM was ranked #1 for future purchase of Portable Computers even though they didn't market one. (Probable reason: because IBM advertises so heavily, people think they make everything.)

—Manufacturers Are Not "User Friendly": Respondents felt overwhelmed by jargon in manuals and ads, are desperate for simpler language.

—Networking: Twenty-two percent of respondents said their computers were networked. The 87 respondents whose computers are networked gave 58 different answers as to how networking was done. Modem had most mentions at 12.

Study copies now available for general distribution.

Circle 62 on inquiry card

Sunbelt vs Rustbowl?

DODGE/DRI INCREASES COVERAGE OF "REAL ESTATE ANALYSIS PLANNING SERVICE" TO TOP 50 CONSTRUCTION MARKETS FOR 1986-1990 PROJECTIONS.

Major players in real estate investment, building product manufacturing, and contracting increasingly find "REAPS" a major tool for "go/no-go" capital commitments, marketing strategies. Consequently service now expanded from former 25-market coverage to top 50. (Also includes limited analysis of next 75 cities.)

Subscribers utilize world's largest computerized construction/economic/demographic data base to make 5-year forecasts in six construction categories: offices, retail establishments, commercial warehouses, hotels/motels, multi-family housing, single-family housing in each metro area.

Analysis based on historic, current and projected supply/demand, starts, completions, vacancy rates. Locational factors include labor quality and wages; tax burden; proximity to markets. Likely macro events (fuel cost projections; exchange rates, etc.) built into analysis.

50-city coverage starts Jan. '86. Initial analysis supplemented by update within year. Service includes consultation with Dodge/DRI economists, on-line access to data and models used in "REAPS".

Circle 63 on inquiry card

Cont'd...

SWEET'S INTERNATIONAL FILE CUTS COST OF FOREIGN CATALOG DELIVERY, PROVIDES EXCLUSIVE EXTRAS.

Research indicates over 40% of manufacturers distributing product literature to export markets are spending over \$6 postage/handling alone to reach each office, vs. about 70 cents via Sweet's International File. Besides cost savings in world-wide distribution, Sweet's provides two major bonuses: 1) Access to Sweet's confidential market list of top 10,000 international design/construction firms, provided on mailing labels if desired; 2) Automatic listing in Sweet's International BuyLine, a telephone service for builders to locate nearest manufacturer sales contacts, a solution to a major problem for international marketers.

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GREATER FLEXIBILITY FOR ADVERTISERS: NEW "BUILDING ECONOMICS" MAGAZINE OFFERS SIX REGIONAL EDITIONS MONTHLY

With its intro issue this month, "Building Economics" chalks up two "firsts": first magazine targeted precisely to the building management team of owners/managers/designers/engineers; and first national monthly in the building field to offer different regional editions—for ads and editorial.

Publisher Paul B. Beatty cites many advertisers who market different products in different parts of the country. For example, HVAC manufacturers may choose to advertise heating systems designed for high use in the northern states, while marketing completely different systems in the south.

The six regional editions: Northeast, Southeast, North Central, South Central, Southwest and Northwest. Initial circulation: 100,000 top influences in commercial buildings and government offices.

Circle 65 on inquiry card

NEWS FOR DEVELOPERS, BLDG. OWNERS: COMMERCIAL REAL ESTATE BROKERS REVEAL INFO NEEDS, WORK HABITS IN "BLACK'S GUIDE" READER SURVEY.

As nation's leading publisher of regional office space availability listings, "BG" commissioned an independent research study to help developers/owners better understand real estate brokers.

Among findings with marketing/ad implications:

—24% of respondent brokers only in business two years or less. (Meaning mailing lists to brokers must be continually updated.)

- Average broker gets 3,000 + mail pieces yearly.
- Brokers rank most useful info in ads: area map, street map, rendering/photo of building.
- 94% of respondents prepare an average of 2.4 detailed space surveys each week, refer to Black's Guide 3.8 times weekly.

Copies of 20-page "Black's Guide First Annual Broker's Survey Consolidated Report" now available.

"Black's Guide" now published in 11 regional editions. San Francisco region scheduled to be 12th in mid '86.

Circle 66 on inquiry card

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TRENDS TO WATCH IN '86

Following are some of the major on-going developments impacting the McGraw-Hill Construction Information Group's own strategies for new product development, marketing, and editorial coverage. They could impact your company's strategy development. In no particular order of importance:

—Increasing Negotiated Subcontracts: Negotiated work now more the rule than the exception. Will put pressure on subcontractors to become active marketers of their firms, not just sharp bidders.

—Increasing Computer Usage: 90% of all architectural and engineering firms are projected to be into computers by '89. Uses will increasingly include product selection, specification, cost control, project management, even identifying job opportunities.

—Hazardous Wastes: Handling and disposition of hazardous wastes becomes a multi-billion dollar market for construction designers and contractors in '86, replacing the faded energy-related megaprojects. Means big business in environmental engineering, geotechnical and groundwater consulting, materials handling and construction. Problem is getting liability coverage for this and even less risk-prone work.

—Importance of Building Owner As End-User: According to a major university's real estate survey, 40% of major corporations have real estate departments responsible for management of buildings. Another 40% are in the process of doing so. These owner/managers are exerting more influence in both exteriors and interiors.

—Retrofit: Projected to be 50% of the '86 construction market. Enough said.

Happy New Year.

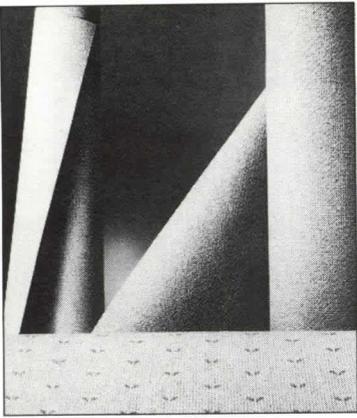
—**RICK JANNOTT,**
EXECUTIVE VICE PRESIDENT, CIG

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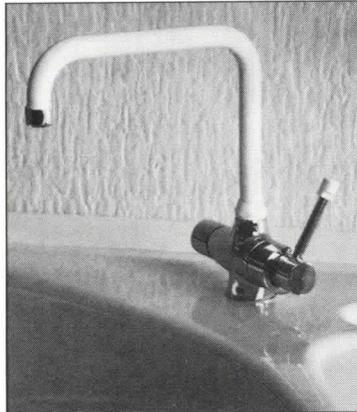
Construction Information Group, McGraw-Hill Information Systems Company
1221 Avenue of the Americas, New York, NY 10020



Vinyl wallcoverings

The *Alpine Collection* of vinyl wallcoverings, intended for use in commercial facilities, is available in 19 patterns and 133 colorways. The wallcoverings have a Class-A fire rating, are said to be washable and highly durable, and come in 27- and 54-in. widths. J. M. Lynne Co., Smithtown, N. Y.

Circle 301 on reader service card



Faucet

A single-hole kitchen faucet features a swivel spout and a one-touch water control lever. The faucets are made of solid brass with a baked enamel finish available in white, black, almond, and Mexican sand with chrome trim, as well as solid black, white, brass, or chrome. Custom colors can be specified. Kolson, Inc., Great Neck, N. Y.

Circle 302 on reader service card



Chaise longue

The *Parabola* chaise longue, designed by Nicola Trussardi, is intended to be reminiscent of deck chairs on ocean liners during the 1930s and '40s. The frame can be specified in gunmetal or brushed nickel-finish steel, and the slats are made of leather-covered steel. Interna Designs, Ltd., Chicago.

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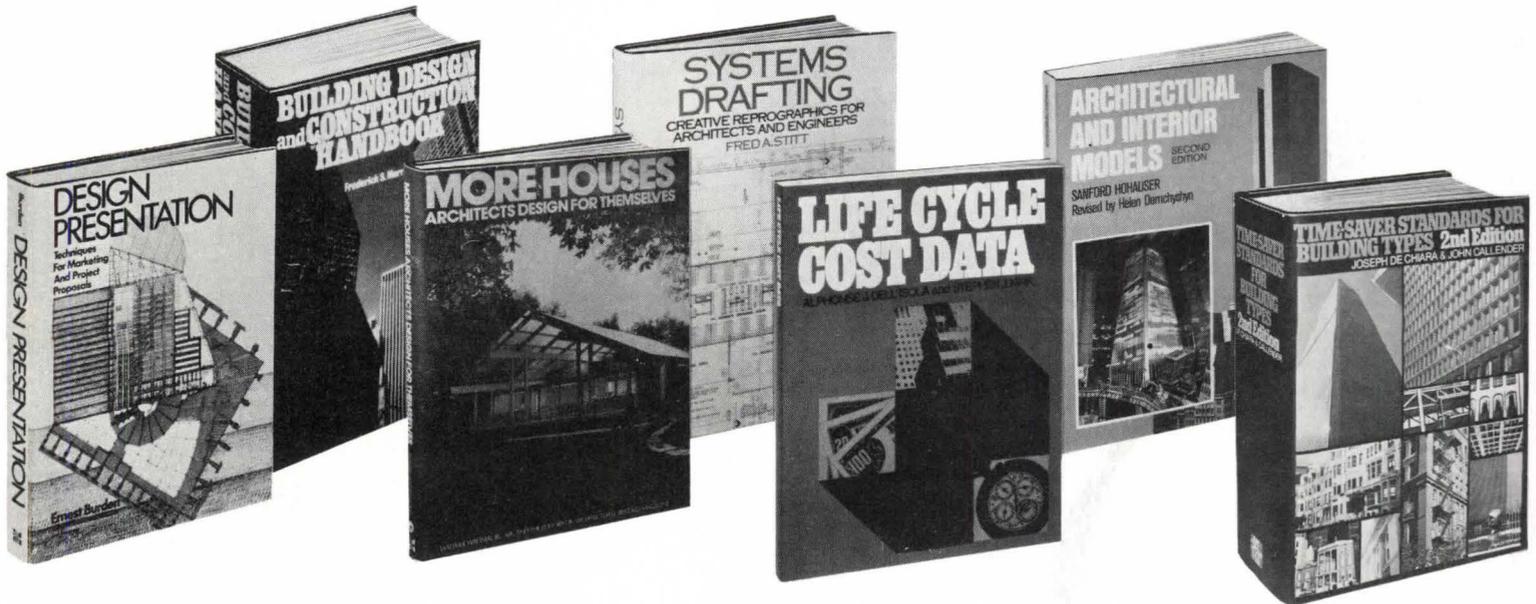
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BUILDING DESIGN AND CONSTRUCTION HANDBOOK F. S. Merritt, *Editor in Chief*, 4th Ed., 1,472 pp., 662 illus. This major revision of the industry's most widely used Handbook shows every established and new procedure and material recommended for producing quality structures at the lowest possible cost.

415/218 Pub. Pr., \$84.50 Club Pr., \$59.50

SYSTEMS DRAFTING: Creative Reprographics for Architects and Engineers By F. A. Stitt. 245 pp., illus. This book shows you how today's profit-conscious architects and engineers are using the new graphic techniques, materials, and equipment to recycle the constants instead of creating them over and over again. Every step is described and shown.

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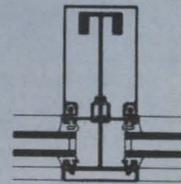
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URBAN DESIGN CENTER A FLORIDA MULTI-UNIVERSITY CENTER

The Universities of South Florida, Florida A&M, Florida State, and Florida are establishing a joint multi-university Urban Design Center, located on the campus of the University of South Florida in Tampa, Florida, which will serve a central initiating and coordinating function for the study of urban and regional, natural and man-made environmental issues. The Center will have major responsibility for integrating and facilitating urban and regional architecture and planning endeavors, developing cooperative training arrangements with architecture, planning, and related firms and agencies, developing continuing education, developing with other architecture and planning degree programs joint and affiliated efforts to contribute toward the enhancement of education in those programs, and providing a locus for collaborative research and scholarship focusing upon design, architecture, planning, and related problems of the urban and regional environment. The Center has been approved by the Board of Regents of the State University System of Florida for immediate implementation.

It is anticipated that the appointment of the Director can occur as early as May, 1986. Necessary qualifications for this position include a terminal degree, or equivalent, in a field related to the mission of the Center, a history of achievements in administering a multi-disciplinary program, a history of successfully seeking extramural funding, and a working knowledge of university and other public sector organizations. Exposure to design or architecture disciplines is preferable but not mandatory. Salary will be competitive with an opportunity for full fringe benefits provided by the State of Florida. Those interested in applying or nominating candidates should contact James M. Anker, Vice-Provost, ADM 226, University of South Florida, Tampa, FL 33620. Nominations and applications will be accepted beginning December 11, 1985. The deadline for receipt of all applications is February 3, 1986.

The University of South Florida is an Affirmative Action, Equal Opportunity Employer.

All prospective candidates should be informed that, in accordance with Florida's "Sunshine Amendment" to the State Constitution, their dossiers are a matter of public record and are available upon request to its residents.

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Senior Designer — Immediate Opening with Patrick + Associates, a nationally recognized architectural firm. Qualified person should be registered, have 10-15 years experience, abilities in quick sketching and conceptual design, and experience with high-rise facilities. The ability to work well with clients, such as national developers and major city/state governments, is essential. Firm offers a competitive salary in an environment that is challenging and rapidly expanding. Send resume and salary history to: Steve Cannell, Director of Finance and Human Resources, Patrick + Associates, 199 South Fifth Street, Columbus, Ohio 43215.

FACULTY POSITIONS VACANT

Interior Design. M.F.A., M.Arch., Ph.D., or other terminal degree. Teach undergraduate courses in at least two of the following areas: contract design, professional practice, computer aided design, environmental design research, design history, theory of design, barrier-free design. Possibility of teaching graduate courses in future. Demonstrated ability in and continued commitment to teaching, professional practice, creative and/or scholarly activities. Design (rather than fine arts) emphasis and a diversity of professional experience is sought. Computer experience is desirable. Minority candidates are strongly encouraged to apply. The College Park Campus is located within the Washington, D.C. Metropolitan Area. The Design programs accept students only by competitive selective admission. About 670 undergraduate majors are enrolled in Interior Design and Advertising/Graphic Design. The Interior Design program is accredited by FIDER. A graduate program leading to the MFA degree with concentrations in Interior Environments, Exhibition Environments, Visual Communication, and Environmental Design Research is expected to begin shortly. Rank: Assistant Professor (tenure track); salary: competitive, depending on experience and qualifications. Submit vita, 20 slides of personal work, and 2 slides of students' work to: Guido Francescato, Chair, Department of Housing and Design, 1401 Marie Mount Hall, University of Maryland, College Park, MD 20742. EO/AA Employer. Deadline: January 15, 1986 or until suitable candidate is found.

Architectural firm in Tampa specializing in large scale development, commercial and public assembly facilities is seeking candidate to fill the following position: Project Architect — must have 10 years minimum experience in all phases of design and construction administration. Registration in State of Florida and/or NCARB Certification required. Reply to: P-2685, Architectural Record.

Project Director — We are seeking a Project Director for our 100-person San Francisco architectural firm. This person will function as Principal-In-Charge of Projects and will be responsible for the marketing and direction of large-scale office, hotel and mixed-use projects, reporting directly to the CEO. The ideal candidate will have a minimum of 15 years experience in large-scale commercial architecture with proven track record in successful client relationships. In addition, this leadership position requires excellent communication, presentation and people-management skills. We offer an attractive compensation package with a base salary in the range of \$55,000-\$65,000. Qualified candidates are invited to send a resume to: Whisler-Patri, c/o Marianne Pearson, 3170 Sacramento St., San Francisco, CA 94115, (415) 931-1221. EOE M/F/H.

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Tuskegee University, Department of Architecture seeks candidates for a full time faculty position to begin Mid August, 1986. Appointment conditions: 10 month contract, tenure track position, with rank and salary commensurate with qualifications and experience. Qualifications: Graduate degree in Architecture or Civil Engineering. Candidates should be qualified to teach structural analysis and design courses, and an additional course in one of the following areas: construction systems, mechanical and electrical systems, computer applications, or architectural graphics. Send letter of application, including curriculum vitae, undergraduate and graduate transcripts, and names, addresses and phone number of three references to: CW Raine, Associate Dean, Department of Architecture, Tuskegee University, Tuskegee, AL 36088.

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Architectural Technology Position — The Department of Architecture at Cornell University is seeking candidates at the Assistant, Associate, or Professor level for positions in the structures and technology area of the curriculum. Candidates should have the ability to contribute to the undergraduate and graduate computer-aided design program and should be qualified to teach in at least two of the following areas: architectural structures, steel and concrete design, lighting and acoustics, energy analysis and thermal design. Positions may require collaboration with design faculty in studio instruction. Appointment criteria will include previous teaching experience; professional degrees at the graduate level; experience in theoretical or applied computer methods; professional experience and research in the architectural field. Academic scholarship and administration are obligations of these positions. Rank and salary are commensurate with experience. Curriculum vitae and supporting materials must be submitted by January 15, 1986 to: Jerry A. Wells, Chairman, Department of Architecture, 143 East Sibley Hall, Cornell University, Ithaca, N.Y., 14853-6701, 607-256-5236. Cornell University is an Equal Opportunity/Affirmative Action Employer.

Architectural Design Position — The Department of Architecture is seeking candidates at the Assistant, Associate, or Professor level for positions in Architectural Design. Candidates must be qualified to teach architectural design as well as courses in another area of the curriculum, such as technology, architectural theory, profession of architecture, design communication, etc. Appointment criteria will include previous teaching experience, scholarly preparation, creative work or research in design. Academic scholarship preparation, creative work or research in design. Academic scholarship and administration are obligations of these positions. Rank and salary are commensurate with experience. Curriculum vitae and supporting materials must be submitted by January 15, 1986 to: Jerry A. Wells, Chairman, Department of Architecture, 143 East Sibley Hall, Cornell University, Ithaca, N.Y., 14853-6701, 607-256-5236. Cornell University is an Equal Opportunity/Affirmative Action Employer.

Rice University School of Architecture is seeking application for full time faculty positions. Applicants should be qualified to teach design studio and provide an offering in a specialized area or direct research activity. Critical areas include, but are not limited to, Architecture and Urban History and Theory. Both junior and senior level faculty are encouraged to apply. All applications should include a current curriculum vitae and be submitted before February 1, 1986. Send applications to Professor Gordon Wittenberg, Chairman, Search Committee, School of Architecture, Rice University, P.O. Box 1892, Houston, Texas 77251, Attention: Doris Anderson, Search Committee Secretary. (Phone 713-527-4870). Rice University is an equal opportunity/affirmative action employer.

Princeton University School of Architecture is seeking candidates for the full-time position of Assistant Professor of Architecture. The position is tenure-track. Teaching duties include participation in undergraduate, professional (M. Arch) and doctoral programs. Desirable qualifications are: teaching experience at the level of assistant professor, background in architectural design, building technology, history and theory. Position to be filled September 1986. Application letter and vitae should be sent before January 31, 1986 to: Faculty Search Committee, Princeton University, School of Architecture, Princeton, NJ 08544. Princeton University is an Equal Opportunity/Affirmative Action Employer.

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Manufacturer sources

For your convenience in locating building materials and other products shown in this month's feature articles, RECORD has asked the architects to specify the products specified

Pages 94-97

1300 New York Ave., by SOM/Washington Limestone: Harding & Cogswell; R. Bratti Assoc. Masonry: American Stone. Granite and marble: R. Bratti Assoc. Roofing: Peter Gordon. Entrances/glazing: PPG. Pulls: Builders Brass Works. Skylight: Super Sky. Recessed lighting: Edison-Price. Cove lighting: Lightolier. Drywall: Standard Acoustics; National Gypsum. Paints: E. W. Minte; Glidden. Pyramid planters: Superior Iron Works. Elevators: Schindler Haughton.

Pages 98-99

Metropolitan Square, by SOM/Washington Limestone: Harding & Cogswell. Granite: Rock of Ages. Concrete: HRW. Window frames/glazing: PPG.

Pages 100-102

Grand Hotel, by SOM/Washington Brick: Hanley. Windows: TSI Industries; Hopes. Glazing: TSI. Concrete: HRW. Portico: A.F. Jorss Iron Works; TSI. Awnings: Sun Control. Paving: Boatman & Magnani. Bench: Lister. Entrance: Hopes. Pulls: Yale; Scovill.

Page 103

US News & World Report Building, by SOM/Washington Brick: Glen-Gery. Cast stone: Arban & Carosi. Window frames, glazing/entrance: Mid-Atlantic Erectors. Push bars: Von Duprin. Floor: Cold Spring Granite. Recessed fixtures: Edison-Price. Paints: Benjamin Moore. Sprinklers: Viking.

Pages 104-105

Jefferson Court, by SOM/Washington Brick: Victor Cushwa & Sons. Fountains: Arban Cast Stone. Terne roofing: Follansbee Steel. Windows: Kawneer. Banners: Flying Circus. Paving: Hanover Prest Paving. Globe fixtures: Spring City.

Pages 106-117

Store for Esprit, Los Angeles by D'Urso Design, Inc.

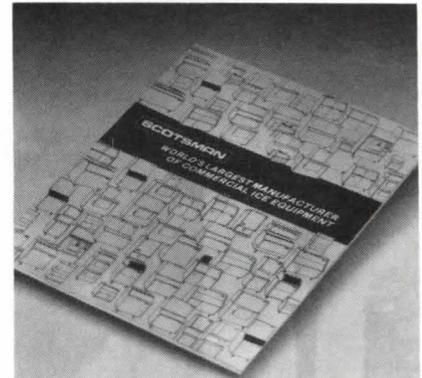
Pages 106-107—Signage: ABC Letter Art. Lighting: Stonco. Entrance: Eurocraft Architectural Metal. Glazing: Giroux. Windows: Torrance Steel; United Iron Works.

Pages 108-117—Wire grid, display fixtures: Eurocraft. Paints: Zolatone. Concrete flooring: L.N. Scofield. Woodwork: Cederquist. Laminates: Formica. Recessed lights: Halo. Computerized lights, panaflexes: Colortran. Jar lights: Stonco. Doors: Metpar; Cederquist. Linoleum: Forbo. Ladders: Alaco. Jacobsen chairs, Aalto stools: ICF. Torso sofa: A.I. Terrazzo: Corradini Corp. Fan: Hunter. Skylights: Aluminex. Exit signs: Moldcast. Metal doors: Sashco. Pulls: Forms & Surfaces.

Pages 126-129

An Artist's Studio, by Anthony Ames Siding: Georgia Pacific. Roof: Alkor Div. Solvay American. Skylights: Sun-Glo. Wood windows: Weathershield. Aluminum windows: Winco. Glazing: Atlanta Insulated Glass. Paints: Devoe; Glidden. Ceilings: Tectum. Drywall: U.S.G. Locksets: Hewi. Hinges: Stanley; Hager. Laminate: WilsonArt. Trusses: Ecco. Lights: Lightolier.

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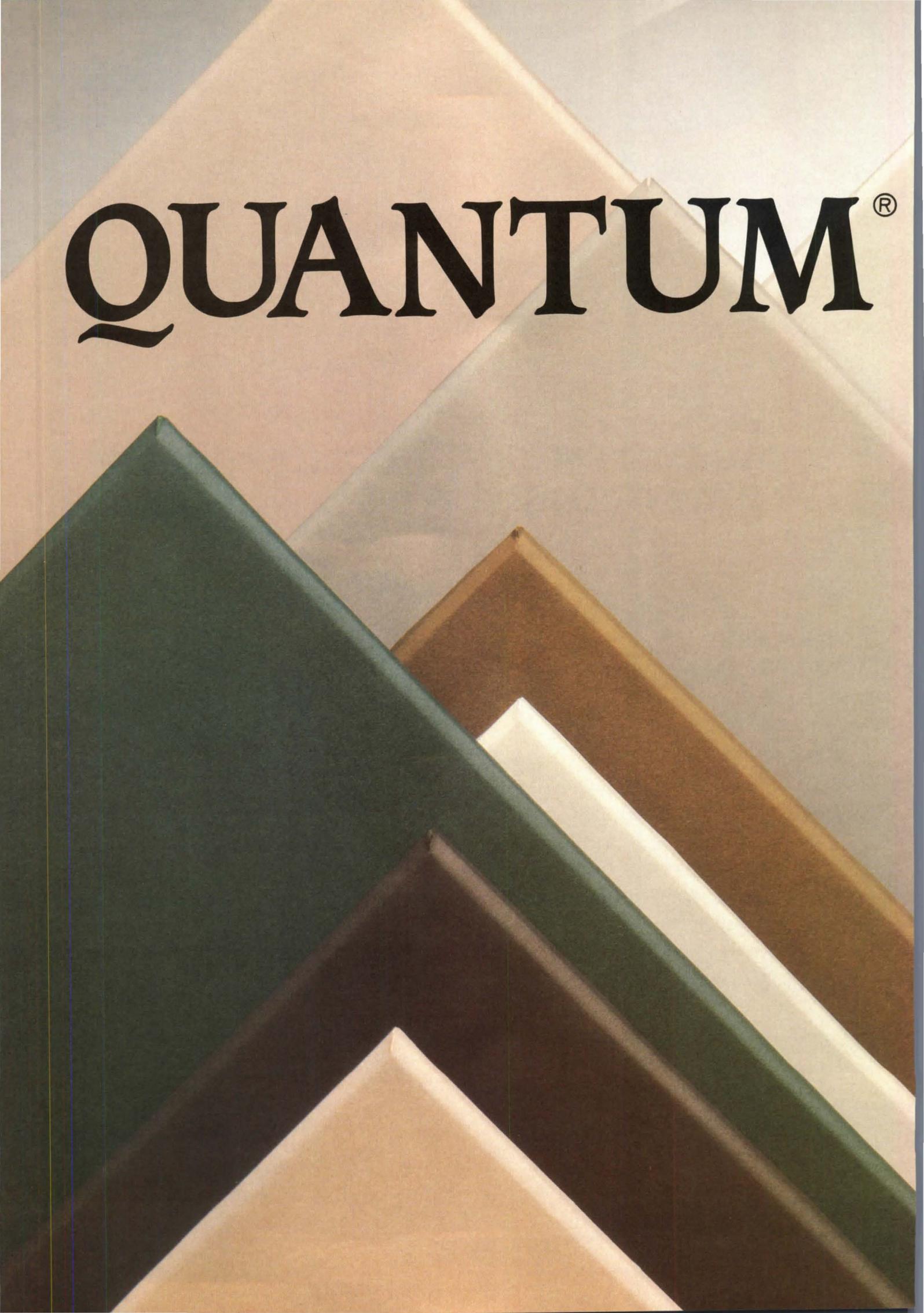


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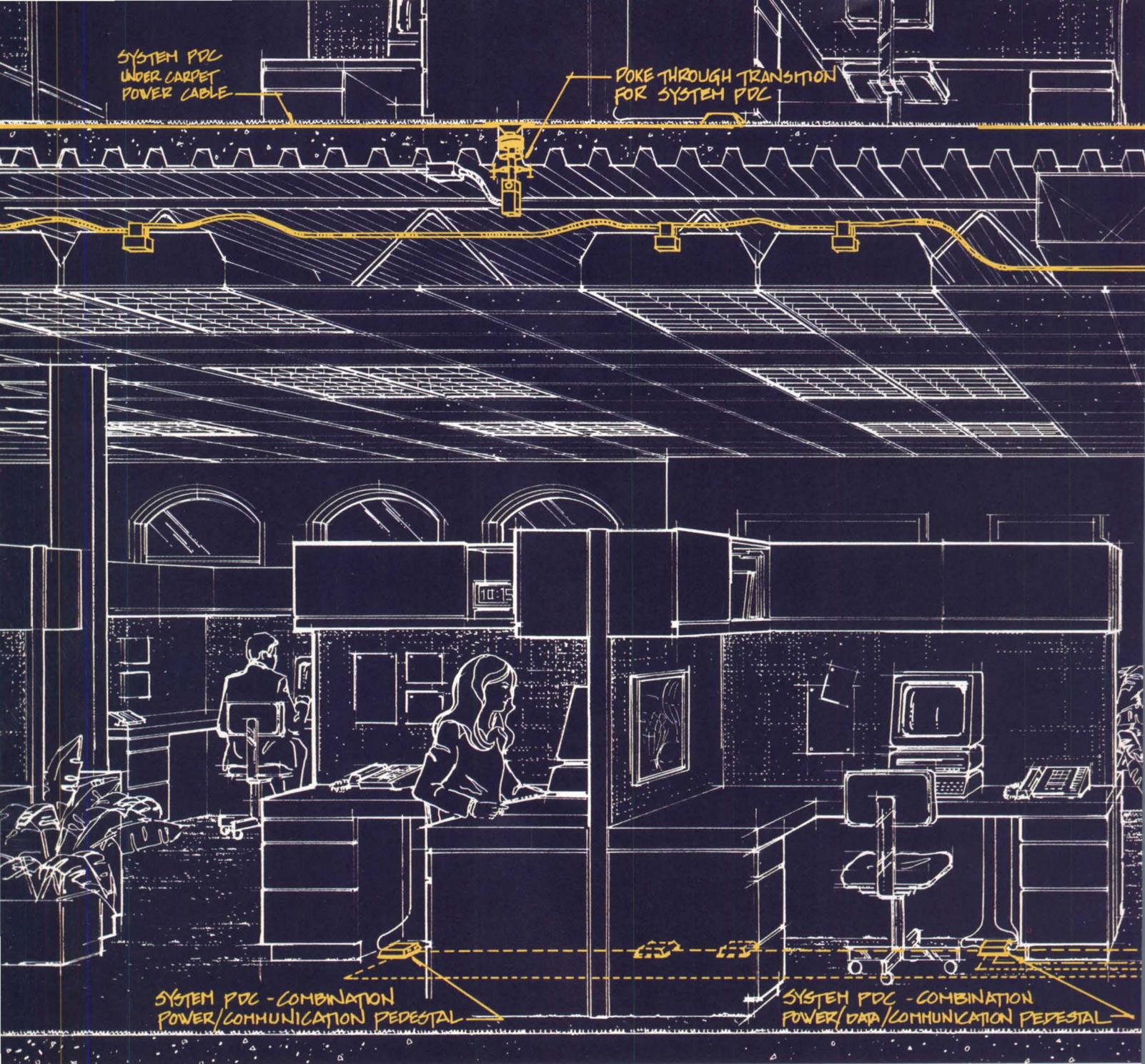
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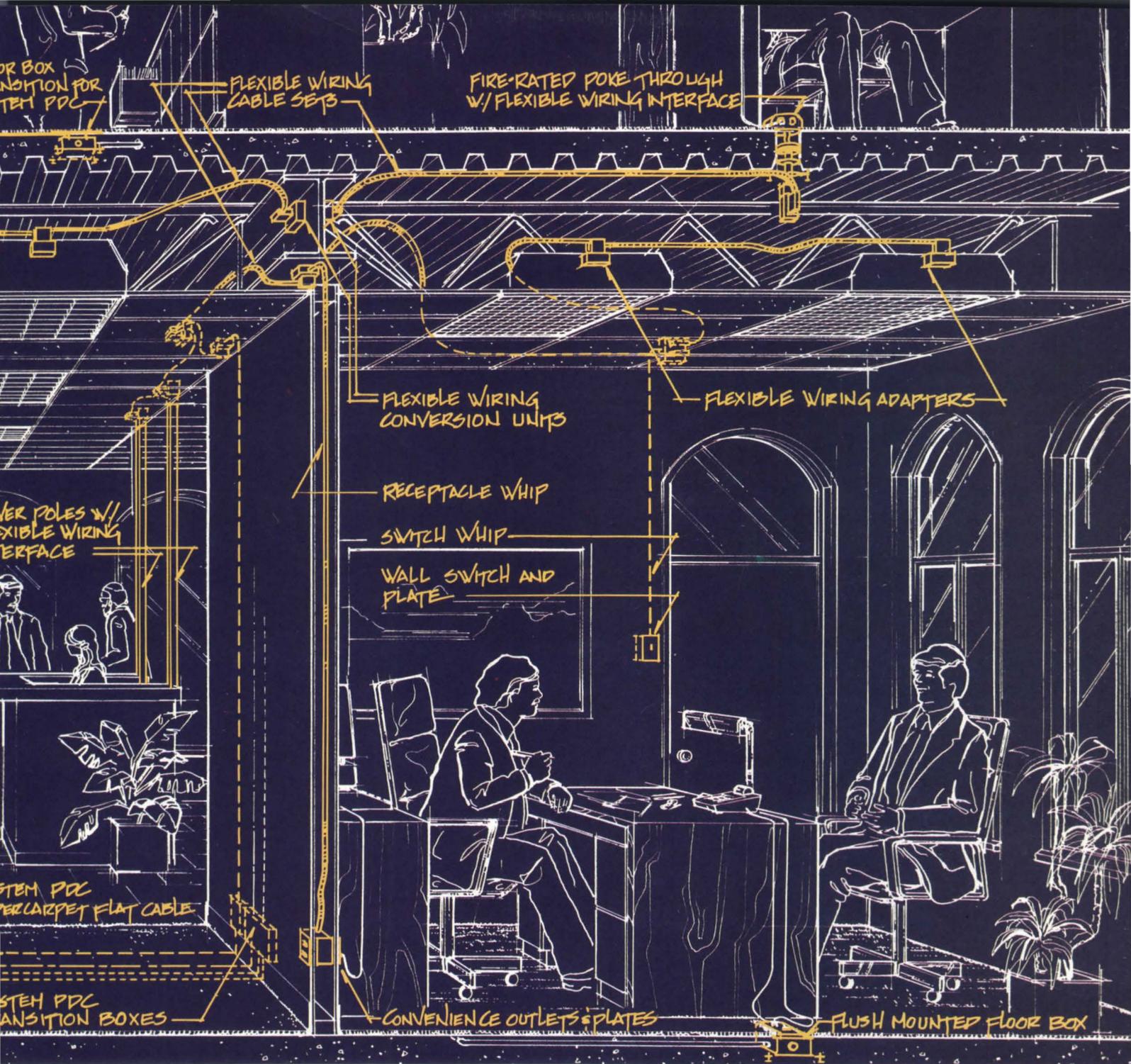
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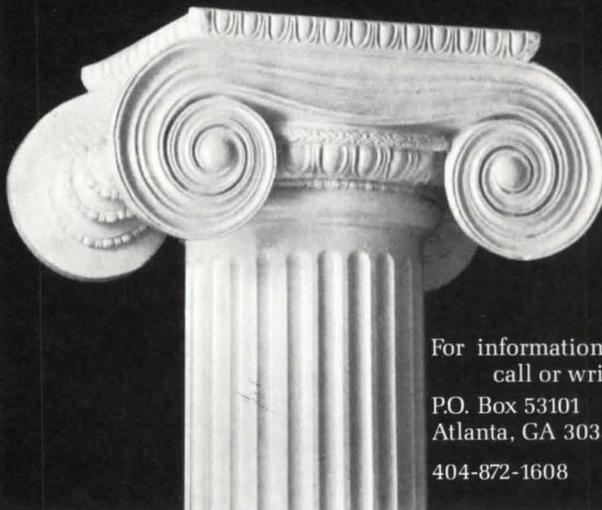
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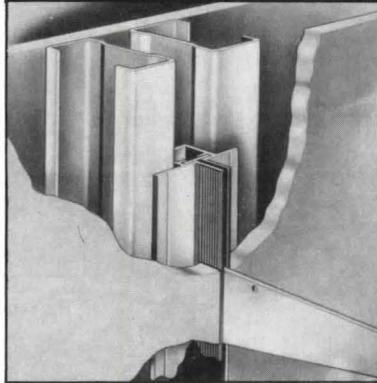
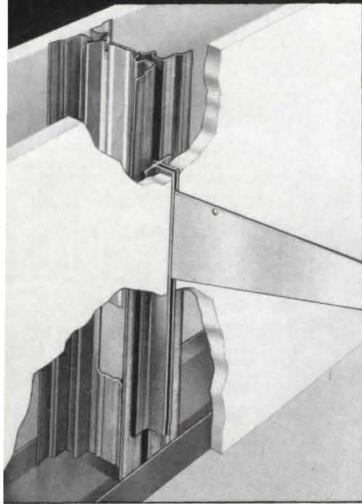
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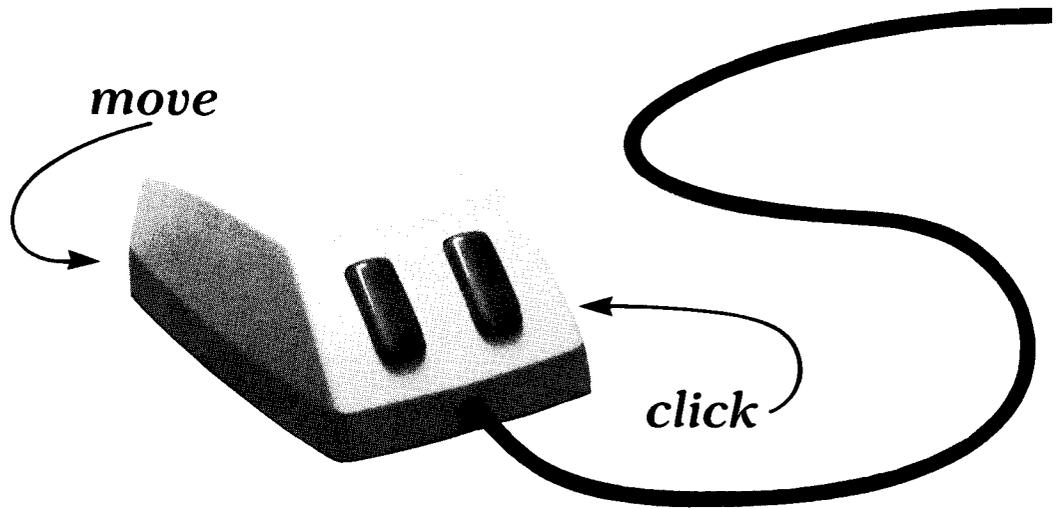
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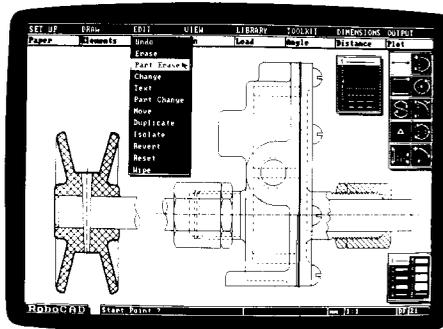


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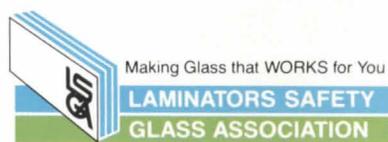
Hurricane Proved



Architects: Gatje, Popachristou, Smith and Miller and Meier, a joint venture.

Past experience shows that windblown debris is a primary cause of glass breakage in a hurricane. Laminated safety glass effectively protects a building's interior from wind-blown debris. That is why it was specified for the first three floors of Ft. Lauderdale's new

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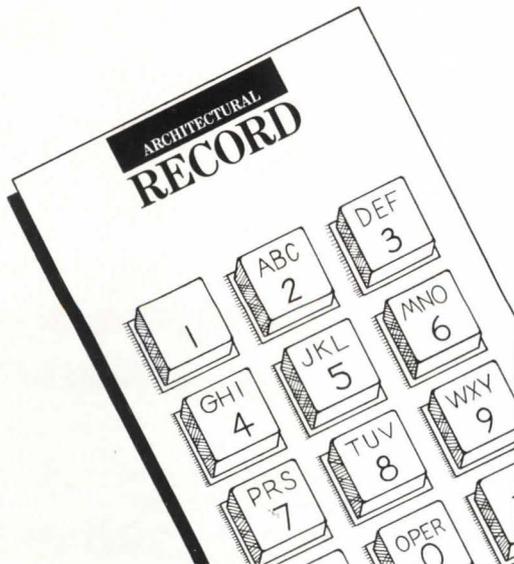
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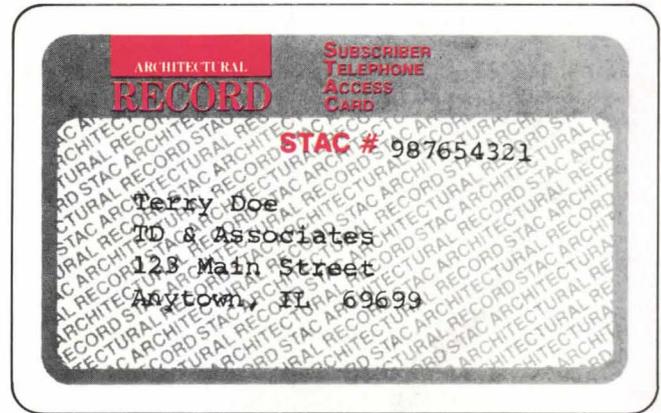
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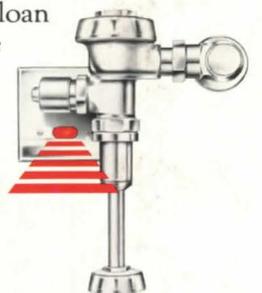
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