ARCHITECTURAL

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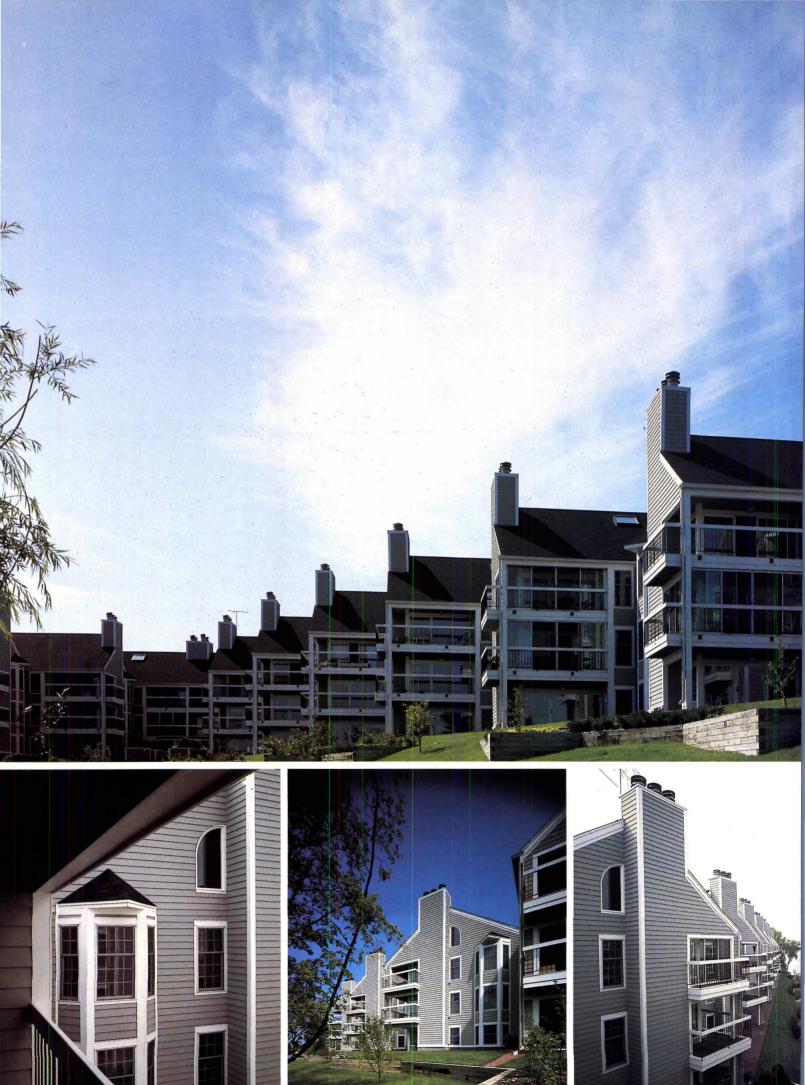


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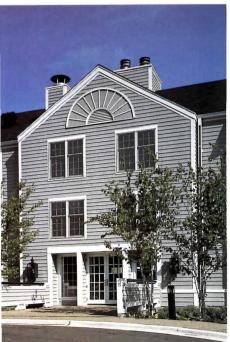
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To give everyone a view of the lake, the building shape had to repeat itself. So Pella was chosen to say "quality" over and over.

The people of Excelsior, Minnesota, have long held a sentimental attachment to a historic parcel of land on the shore of Lake Minnetonka. That's why they made waves any time anyone proposed to develop it. And now — where streetcars from Minneapolis dropped vacationers from around the world, where a landmark amusement park had stood — stands Excelsior Bay Gables.

Miller Hanson Westerbeck Bell Architects have succeeded admirably in recalling the excitement, texture and scale of the community's past in this luxury condominium development. For this upscale market and this beloved site, nothing but the best would do. And that meant Pella Windows and Doors. Through double-hung bay windows and sliding glass doors, each of the 52 units is afforded equal orientation to the lake.

The creative interlocking of dwellings resembles a New England fishing village in its traditional materials, forms and colors. While reminiscent of grand old Excelsior resort hotels, mass is broken into a residential scale that is sympathetic with this quaint community of wood frame houses.

Pella standard and custom windows and doors.

Pella offers a range of standard and custom windows to suit almost any new or retrofit project, with a variety of glazing and shading options. At the Gables, Pella Double-Hung Windows are arranged in bays, while custom Pella springline quarter circle windows light up third story lofts.

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Excelsior Bay Gables Condominums

Excelsior, Minnesota

Developer: Keewaydin Development Group, Inc.

Minneapolis, Minnesota

Architect: Miller Hanson Westerbeck Bell Architects, Inc.

Minneapolis, Minnesota

Contractor: John Lambin Construction Company

Excelsior, Minnesota

I want RECORD to have in its hands an expression of my appreciation for its editorial support of our Housing Committee [January 1986, page 15]. Like RECORD's editor, I take seriously the fact that we architects have a fiduciary responsibility not only to protect but to enhance the well-being of our

clients and the general public.

I am proud of what the Institute is doing to help focus professional and national attention on the plight of the homeless. That is not to say we cannot do better. We can and will, because it is the right thing to do and because that's what our

members want.

We have, as you well know, limited resources. Much of the AIA's efforts must necessarily be directed toward very practical, perhaps even prosaic concerns in our continuing long-range efforts to improve the conditions under which we practice. But these efforts will not keep us from our larger responsibility to tend to the special shelter needs of the homeless, the sick, and the elderly.

John A. Busby, Jr., FAIA PresidentThe American Institute of Architects Washington, D. C.

Thank you for the thoughtful and informative wrap-up by Carter Wiseman on the Westway fiasco in your February 1986 issue [page 81 et seq.]. Without overheating the issues on either side, he provides us with a concise digest of what happened and makes a good contribution to the literature of planning in the process.

Of particular value to architects and planners should be his final observation. Wiseman exhorts New York, having suffered Westway, to learn from it and pursue more responsive ways of approaching the future—"by planning for change, instead of trying to change for a plan," he pleads. Words we can all

profit by.

I think this is so vital a lesson to be learned by anyone interested in making responsive and predictive rather than reactive and controlling plans that it should be carved in carrara above the doors of every city planning department and architectural school.

Jim Burns Community Planning ConsultantSan Francisco

As a member of an architectural firm that utilizes precast concrete panels extensively in its buildings, I applaud your article "Precast classicism" [RECORD, January 1986, pages 130-141]. Although Ricardo Bofill's position in architecture may be controversial, his mastery and

ingenuity in using precast panels is indisputable. He has raised the level of design-detailing in precast to a new height.

For our profession, Bofill's built work is a confirmation that, as he said, "If you can build the mold, you can build the design in precast." For the American precast industry, it is a challenge to match the quality of fabrication that its French counterparts seem to have achieved. Raphael Samach John Portman & Associates Atlanta

I should like to add a suggestion to Dean Ron Filson's proposal for a postgraduate clinical program outlined in your November 1985 issue [page 59 et seq.].

The student should spend six months (or longer) working in a planning and construction agency of a socialist country—working in an atmosphere where planning and design are done by teams of planners (physical, social, ecological, economic, and cultural) instead of by individual developers guided by profit. The students (architects and urbanists) could then appreciate the meaning of long-range, people-oriented design. Jan Reiner, Architect St. Petersburg, Florida

The mini-test published in your February 1986 issue [page 59] was revealing: it indicated that the exam hasn't changed much and that I haven't forgotten as much as I

thought I had.

Of course, with the wide-range of client needs facing an architect today, a 10-question quiz can't possibly cover the entire spectrum. However, there are three areas that I feel the mini-test overlooked: "getting the job," space planning or needs analysis, and project-delivery systems. Perhaps the NCARB shouldn't concern itself with whether the architects it certifies can get work, but it certainly should be concerned with how an architect will determine the needs of a client, how he or she will respond to those needs, and how he or she will be affected by the arrangement the client selects to contract for design and construction.

Your article was valuable, and I enjoyed pumping up my ego. James T. Biehle, AIA Inside/Out Architecture, Inc. St. Louis

RECORD's story on the Financial Guaranty Insurance Company (November 1985, pages 126-131) should have credited Larsen/Juster as the architects of record, with Robert Larsen serving as project architect. Emilio Ambasz served as design consultant.

Through May 1 Exhibition, Five Columbia Buildings: additions and renovations; in the Low Memorial Library rotunda, Columbia University, New York City. April 12-May 31 Exhibition, New Firms, New Forms: The Works of Tennessee's Young Architects; at the Brooks Museum of Art, Memphis, Tenn. April 17-18 Fourth Annual Construction Law Seminar, for contractors, architects, engineers, and lawyers, sponsoredby IIT Chicago Kent Construction

Law Institute; in Chicago. For information: Steven G. M. Stein, Lurie Sklar & Simon, Ltd., 180 N. Michigan Ave., Chicago, Ill. 60601 (312/641-5252). May 4-7 "Asbestos-Cement: New Technological and Product Directions for the Future," the First

International Conference on Asbestos-Cement, sponsored by the Asbestos Institute; in Cannes, France. For information: Scott A. Houston, The Asbestos Institute, 1130 Sherbrooke St., W., Suite 410, Montreal, Que. H3A 2M8 (514/844-3956).

May 11-13
"Lighting World IV," the International Advanced Illumination Exposition & Conference, sponsored by the International Association of Lighting Designers and the Illuminating Engineering Society of North America; at the Los Angeles Convention Center. For information: National Expositions Co., Inc., Suite 12A, 49 W. 38th St., New York, N. Y. 10018 (212/391-9111).

May 11-15

Computer Graphics '86, seventh annual conference and exposition of the National Computer Graphics Association; at Anaheim Convention Center, Anaheim, Calif. For information: National Computer Graphics Association, 2722 Merrilee Dr., Suite 200, Fairfax, Va. 22031 May 12-13

'Facilities Management for Senior Executives," a program sponsored by the Massachusetts Institute of Technology's Office of Facilities Management Systems; in Cambridge, Mass. For information: Kreon L. Cyros, MIT Office of Facilities Management Systems, E19-451, 77 Massachusetts Ave., Cambridge, Mass. 02139 (617/253-6168).

May 15 Exhibition opening, The Burghley Porcelains, including Chinese, Japanese and European objects, to continue through the summer; at Japan House Gallery, 33 E. 47th St., New York City.

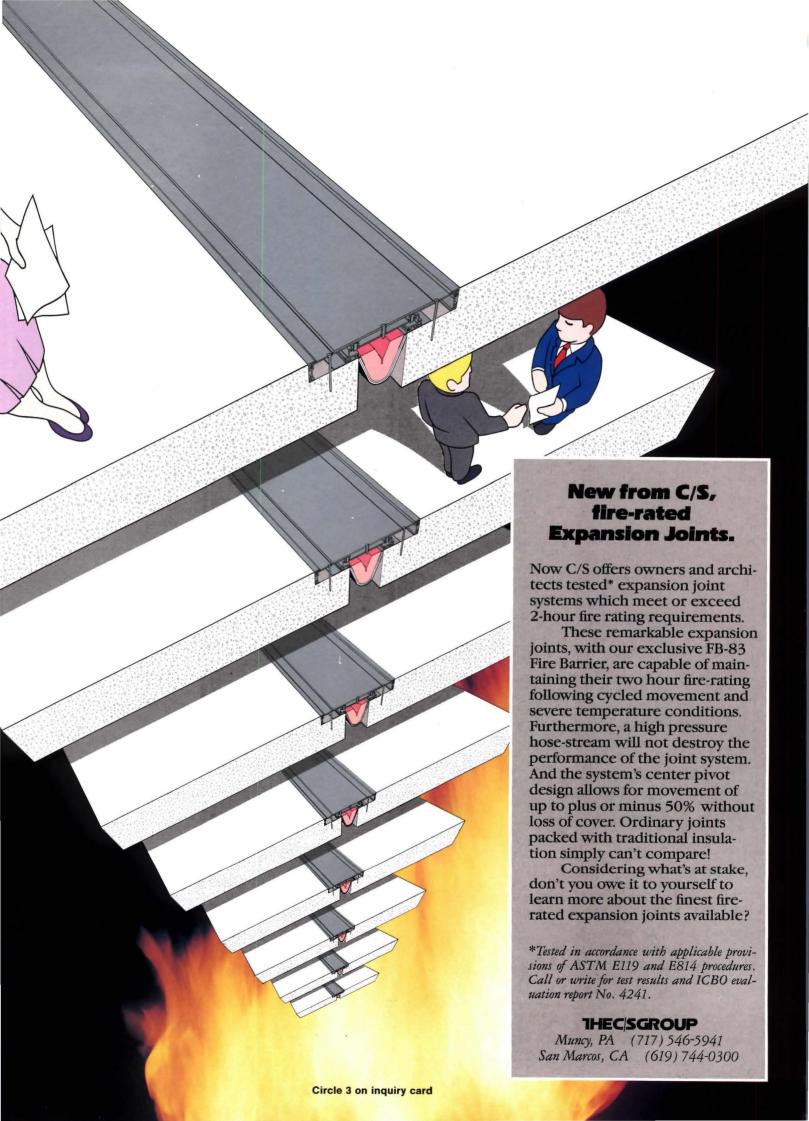
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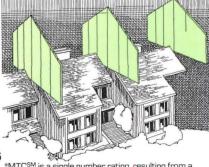


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Reinventing an authentic regional architecture

In their search for esthetic principles to govern the design for King Saud University, a \$2-billion precast concrete desert megastructure in Riyadh, Saudi Arabia, architect Gyo Obata and his HOK+4 design team used a tiny Central Arabian mud village as inspiration (pages 126-135). To select a contrary example, also from this issue, Mitchell-Giurgola refrained from drawing upon the Eskimo vernacular in conceiving the Anchorage Historical and Fine Arts Museum addition (pages 112-119). Not everybody is doing it, in other words, but nevertheless, among architects who work directly with traditional sources, the best are turning away from insubstantial, fictitious uses of history toward an architecture that responds more subtly to regional contexts.

For me, the term "architectural regionalism" brings good images to mind—the Bay Region style, for example; or bad ones—all the fake adobe in the American Southwest. Until I saw SOM's Hajj terminal in Jeddah, the Riyadh university, and a few other recent works, I believed that styles rooted in regionalism had seen their day, devalued by the more whimsical Postmodern historicisms, or made obsolete everywhere by today's universally standardized building technologies. I was to learn more last December at a seminar on the subject, sponsored by the Aga Khan Award for Architecture, and held in Dhaka, Bangladesh.

Among my teachers was the English historian and critic of architecture, William J. R. Curtis, who told the conference that he sees: "... a mood gathering momentum which rejects the glib reproduction of international formulae and which seeks out continuities with local traditions... part of a wider reaction against simplistic models of modernization. At its worst it may degenerate into a skin-deep instant history in which ersatz images of the vernacular are combined with pastiches of national cultural stereotypes. At its best regionalism penetrates to the generating principles and symbolic substructures of the past, then transforms these into forms that are right for the changing social order of the present. It is a matter of sensing beneath the surface the memories, myths, and aspirations that give a society coherence and energy, and then providing these with an authentic expression in architectural arrangement. The hope is to produce buildings of a certain timeless character which fuse old and new, regional and universal....Regionalism looks for sustaining spiritual forces and refuses to accept that a tradition is a fixed set of devices and images. It sees the past as a series of superimposed layers of inventions, from the earliest nomadic forms, through villages and towns, to later imperial and even colonial frameworks. It identifies many of the most relevant patterns for dealing with climate, local materials, and geography....The aim is to unravel the layers, to see how indigenous archetypes have been transformed by invading forms, and to in turn see how foreign imports have been adapted to the cultural soil....Beyond the particular, the regionalist tries to see the type, the general rule, the originating principle. The rural vernacular offers numerous lessons in the best ways for dealing with the extremes of climate, but these can be translated into quite different building functions and modern technologies. Monuments are read not just for their superficialities of style, but for their deeper lessons of order. The fabric of the city yields many secrets of scale in handling open spaces and transitions. Tradition is penetrated for lasting humane and artistic values, not as a source for a picturesque scenography. . . . The moment is right for the assertion of an architectural value system that eschews the aridity of off-hand utilitarianism and the bogus 'remedy' of phony historicism. Authentic regionalism tries to penetrate to what is of lasting worth in the present culture and in tradition; arbitrariness and superficiality are its enemies....Of course, there may be many modern programs whose size and complexity disallow the direct application of traditional types, but this does not stop the designer from trying to translate principles... and this does not have to mean regression into fits of sentimental nostalgia. . . . Instead of aping the past, the authentic regionalist looks beneath the surface to the basics and these he attempts to transform. Enthralled by the Mosque of Ibn Tulun, the harmony of Fez or the majesty of Hummayum's Tomb, he asks himself: how would these masters build today?"* Difficult for most of us to imagine, but surely with more rigor and less caprice than today's architectural fashion seems to dictate. Mildred F. Schmertz

^{*}From "Towards an authentic regionalism" by William J. R. Curtis, published in Mimar 19, January-March 1986.

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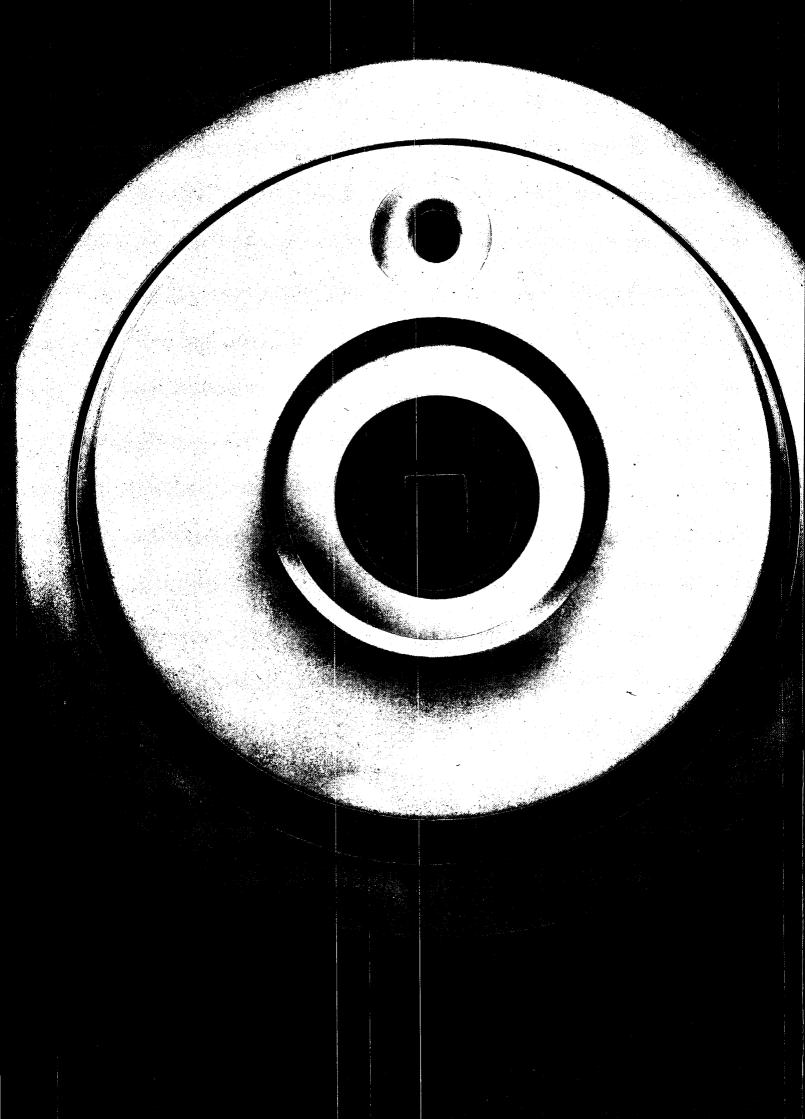
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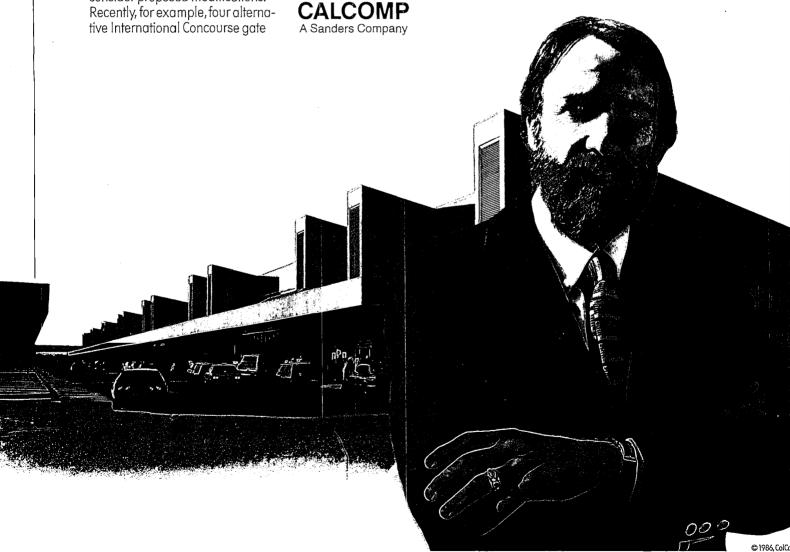
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With all this going for it, it's aging process and small wonder that Derbigum is one of the world's best-proven, single-ply roofs. With over 1.6 billion square feet installed since 1967. On roofs all over the world. In virtu-

ally every kind of climate. Since it was first introduced in the

United States, there have been no known product failures.

40 YEARS OF ROOFING EXPERIENCE

Owens-Corning knows that Derbigum roof systems are called upon to endure torturing extremes. Driving winds, ice. snow and roof temperature variations of over 100 degrees in a single day can be expected on a commercial roof.

That's why we have invested over 40 years and hundreds of millions of dollars in providing the highest quality, stateof-the-art roofing asphalts, membranes and insulations.

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For more information, contact your Owens-Corning sales representative. Or write B.T.J. Meeks, Owens-Corning Fiberglas[®] Corp., Fiberglas Tower, Toledo, Ohio 43659.

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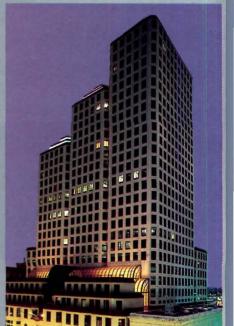
Fourteen other low and midrise Dover elevators serve this enormous new downtown office, shopping and dining complex.

For information on Dover elevators or assistance on any elevator project call your local Dover office. Or write Dover Elevator Systems, Inc., P.O. Box 2177, Memphis, TN 38101.

One American Center
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Architect: Morris Aubrey and
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Elevators sold and installed by Dover Elevator Co., Austin, Texas

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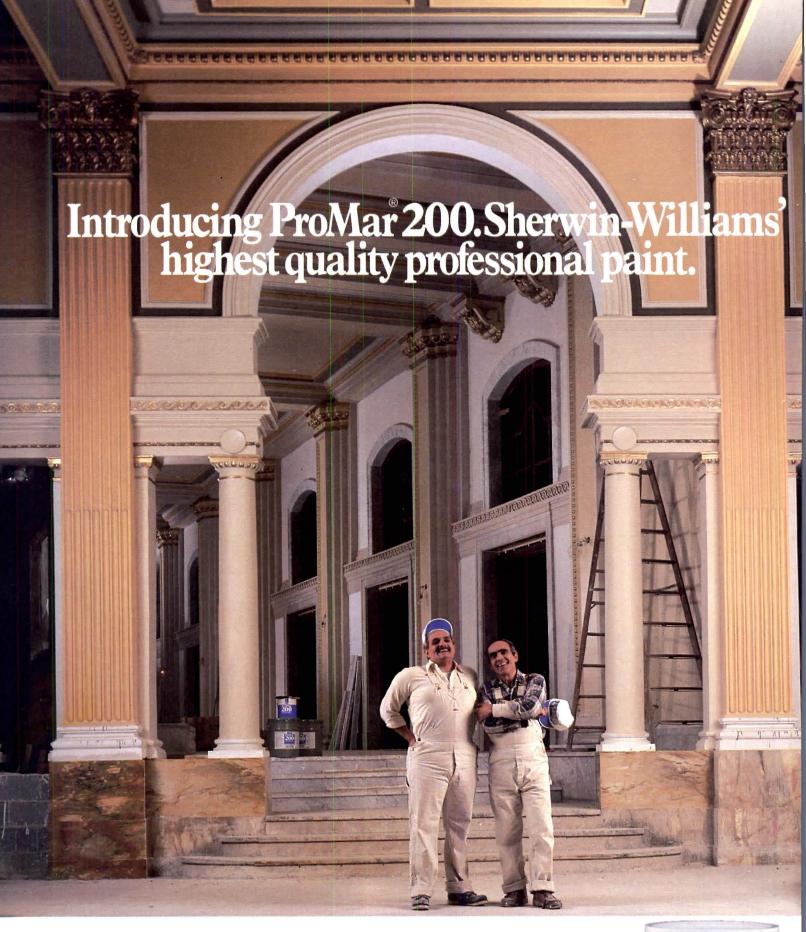
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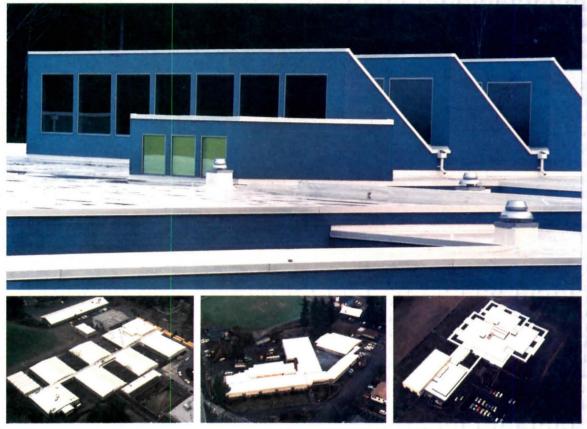
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PROFESSIONALS DO.
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Nothing tops a Hi-Tuff™roof.



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If you're thinking about reroofing, think about Hi-Tuff. Because nothing tops a Hi-Tuff roof.

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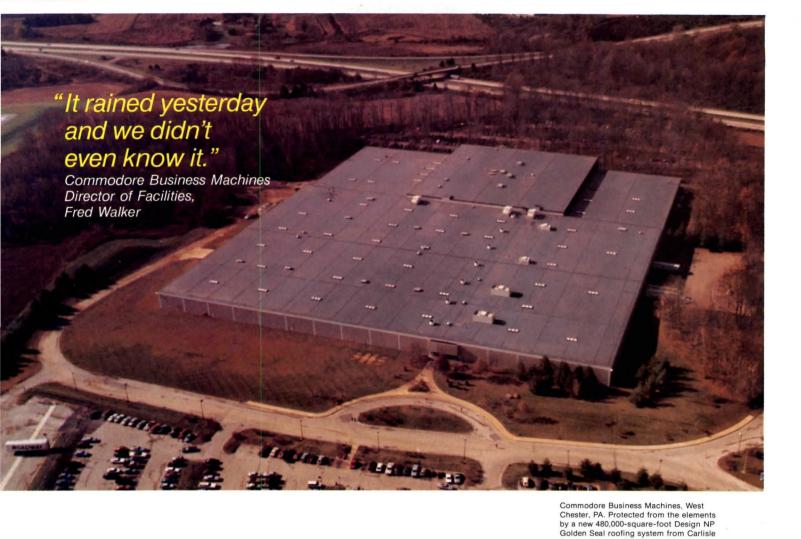
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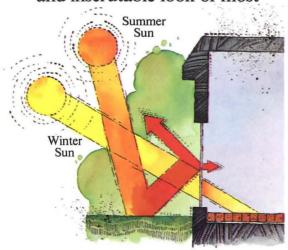
ANDERSEN'S REMARKABI HOT SUN INT

Until now, about the only way you could reduce the heat of the sun was with windows that also reduced the light of the sun. That made for buildings that looked like mirrors on the outside, and a bit like caves from the inside.

Now, Andersen has developed a window that reduces the sun's heat $2\frac{1}{2}$ times better than ordinary single-pane glass, yet it lets in twice as much light as mirror-like reflective glass.

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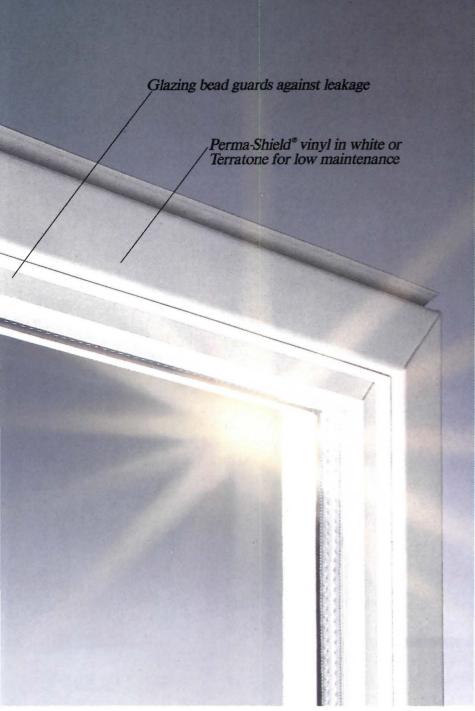
BETTER LOOKING FROM OUTSIDE. BETTER LOOKING FROM INSIDE.

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These Andersen windows have a soft bronze tint

that looks handsome from the outside, yet it doesn't distort colors for the people looking out. In fact, it makes these colors look much richer. The greens are greener and the blues are bluer.

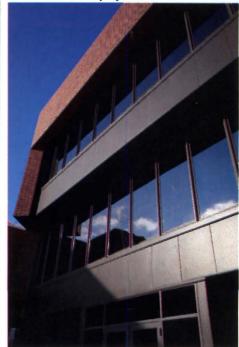
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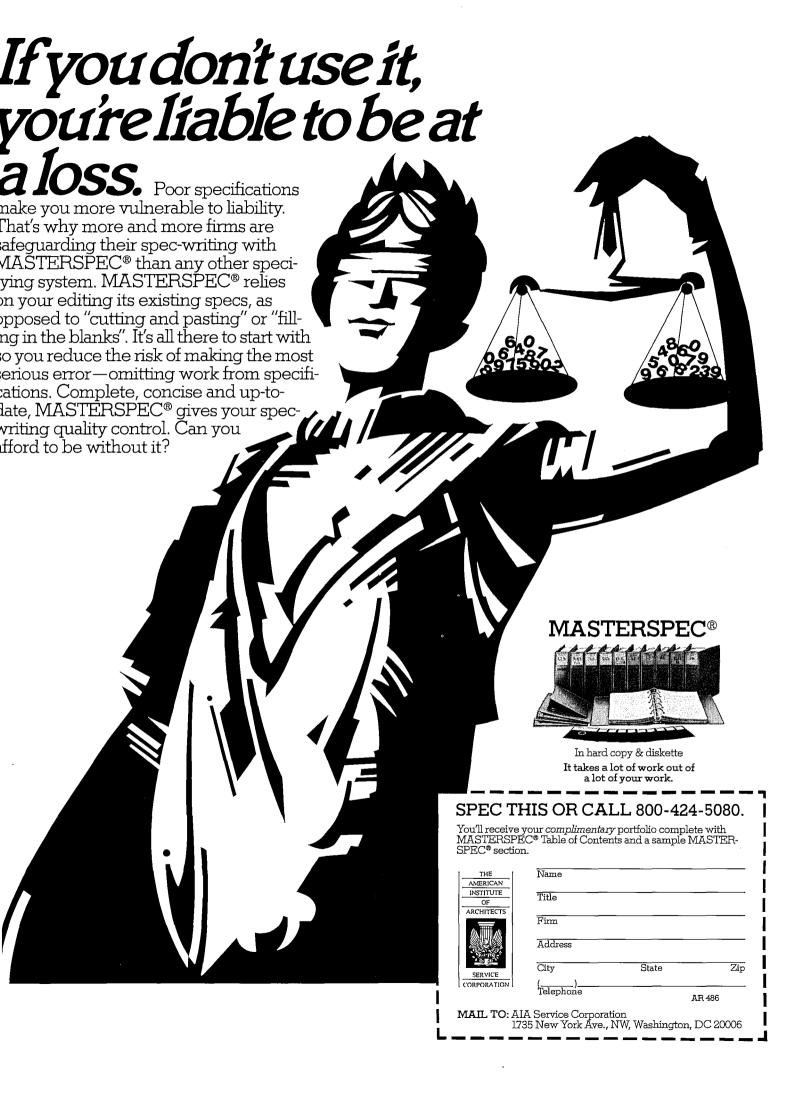
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about Sloan No-Hands automated systems. Or write us.



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"When we decided to bid the Statue of Liberty project, we wanted to use Cook Drilling. Once we saw the specs, we knew there was no one else who could do the job!" Doug Muttart, *President*, National Elevator Corp.

When you've been in the drilling business for over three generations, you start to think you've seen it all. With the Statue of Liberty project we saw a new one!

A 100 foot jackhole, drilled from inside the base of the Statue, absolutely plumb!

We had to dig deep, literally and figuratively, to complete this project. We did. On time and on spec.

We're proud of our contribution on this project, but we're also proud of the thousands of other projects we've worked on. Some were simple, and some were so difficult that others couldn't (and wouldn't) do them.

But we did! And we did them right because we have the equipment and the experience to do any project. In some cases, we've even designed new equipment to do a seemingly impossible job.

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of Liberty!

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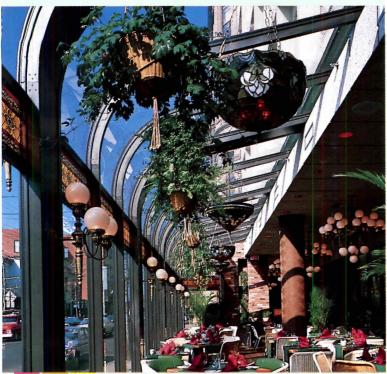
Our symbol is quality, craftsmanship, excellence and a great pride in everything we do.

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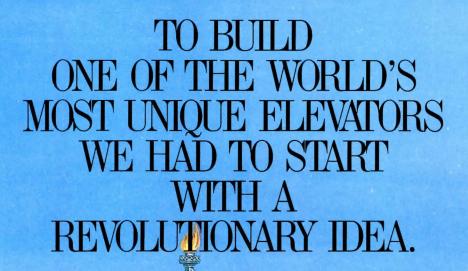
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We give every project the attention it deserves, even if it's not The Statue of Liberty. Call us for your next elevator project. We'll put a revolutionary idea to work for you.





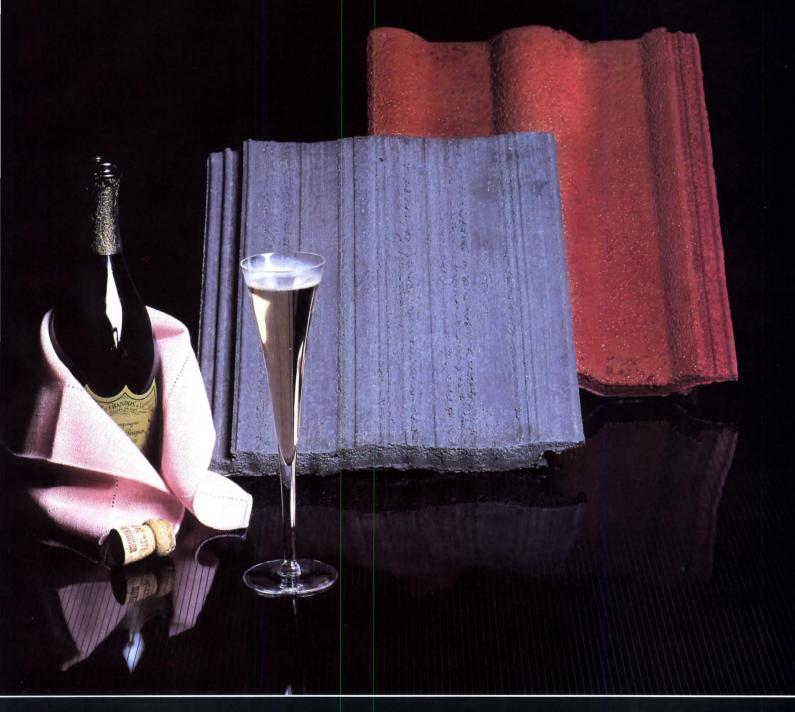
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Circle 43 on inquiry c

New construction contracts show a fall from their peak

Engineers focus on asbestos liability

The latest figures from McGraw-Hill's F. W. Dodge Division show construction contracts declined 14 percent in January to a seasonally adjusted annual rate of \$195.9 billion or 139 on the Dodge Index (1977=100). This constituted a twoyear low. Construction contracts have been falling off since October 1985, when they reached a threeyear peak of 169. The primary cause of the drop is a reduction in public works and nonresidential construction, which can be traced to weak business capital spending and the government's budget cuts.

According to George A. Christie, vice president and chief economist for F. W Dodge, "January's contracts revealed an acceleration of the decline of new construction underway since the cycle reached its peak last October. Ninety percent of nonbuilding construction depends on public funding. Therefore, a commitment to Gramm-Rudman deficit-reduction translates into a squeeze there.'

January contracts for nonresidential building fell 16 percent, to a seasonally adjusted value of \$64.6 billion. Healthy office construction—despite a current glut of space (Finance, this issue) helped limit the drop in the commercial/industrial component of nonresidential building to 13 percent, despite sharp declines in contracting for factories, stores, and warehouses, and an 18-percent drop in institutional building Residential contracts, which had remained strong all through 1985, fell 9 percent to \$98.5 billion.

On a regional basis, the decline was the worst in the West, at 18 percent; near the national average in the Northeast and Central regions at 12 and 10 percent, respectively; and least severe in the South, at 8 percent.

Contract-textile suppliers form association

Thirty wholesalers of contract textiles have formed an association to better promote their products and to work on mutual problems, including flammability and toxicity of fabrics, level of import duties on wool, and difficulties with manufacturers Expanded membership is invited. For information, contact Paula Robertson, Association of Contract Textiles, Inc., 212/219-6514.

In another permutation of the liability problem, engineering firms are opting not to submit proposals to the Veterans Administration and other Federal agencies for work involving asbestos removal because they cannot get insurance for it. The American Consulting Engineers Council feels the agencies could ease the problem by agreeing to indemnify such work or supply such insurance on their own.

But, ACEC reports, the agencies' representatives have said they were not aware there was a problem until recently-or to be specific, that insurance problems were severe enough to warrant federal action. The agencies are now studying the issue. To dramatize its point, ACEC is urging its members to notify the government when they decline to submit proposals because of liability problems.

What future for Ellis Island?

With restoration work on the Statue of Liberty in New York harbor moving along smartly toward completion for a four-day birthday celebration in July, attention is now shifting to plans for restoring nearby Ellis Island's buildings through which many early immigrants entered the U.S

Interior Secretary Donald Hodel, responding to the possibility of turning the island into a resort, recently told the advisory Statue of Liberty/Ellis Island Commission that "we will work to protect and maintain the integrity of the statue and the island and will not allow a

commercial mockery.

Alan Nelson, commissioner of the Immigration and Naturalization Service, has said that the buildings on the southern portion of Ellis Island should be preserved, in addition to the Great Hall on the northern portion, which is already being restored.

The comments came in the wake of the Great Lee Iacocca Flap. Iacocca, chairman of the Chrysler Corporation, was fired by Hodel in February as commission chairman while retaining his title as chairman of the sister organization, the private nonprofit Statue of Liberty/Ellis Island Foundation, which is charged with raising funds and letting restoration contracts.

After his dismissal, Iacocca came out strongly against plans for a luxury hotel and conference center as not in keeping with the spirit of the place, describing such projects as tax breaks for the rich. An Interior Department official said that, while such plans had been proposed by the Center for Housing Partnerships, a nonprofit group in New York, the idea has long since been abandoned.

Now, says Interior Deputy Undersecretary Keith E. Eastin, both organizations are looking at the idea of restoring the south Ellis Island buildings as a convention center, run perhaps by universities representing the states of New York and New Jersey, such as New York University and Rutgers.

Chairman Gene Bay of the advisory commission's architectural subcommittee said that his committee is looking at a number of options, and he would like to see more ideas. Plans so far include those of Johnson/Burgee for an exhibition center documenting the artistic contributions of various ethnic groups; the international convention center suggested by the Center for Housing Partnerships; and a list of options drawn up by National Park Service that range from restoration of the buildings (at a cost of \$40 million to \$50 million); stabilizing the island and then "locking the door" (\$20 million); razing everything (\$10 million), and doing nothing at all.

Bay said his committee will meet this month in New York, will walk through the site, and "will call on the professional people for advice. We'll try to reach a decision as quickly as possible, but quality will be the most important criterion.'

The commission's new chairman, Armen G. Avedisian, a banker from Geneva, Wis., said harmony has returned to the undertaking. "I have spoken with Iacocca several times, and can report that the spirit of cooperation is stronger than ever today." The problem so far is money. The chairman of the finance subcommittee, James R. Galbraith, said there is "not a dime" yet for Ellis Island, and the basic question of where to go for funds—the government, Congress, private fund-raising—still has to be resolved. Peter Hoffmann, World News, Washington, D. C.

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Legal perspectives: There is a remedy for frivolous suits

By Arthur T. Kornblut

While the rhetoric by design professionals seeking to do something about frivolous suits goes on, a little-noticed development in the federal courts is already attacking the problem. In 1983, Rule 11 of the Federal Rules of Civil Procedures was changed to require a potential plaintiff to make a reasonable inquiry into the facts and the law related to his case before filing a lawsuit or other litigation documents in any federal court. And, recent cases strongly suggest that the federal courts are putting real teeth into new Rule 11.

So-called frivolous suits are perceived to be a large factor in our liability crisis. "So-called" because, in most cases, liability claims against architects, as defined by the courts, are not frivolous.

Whether a suit is frivolous or not, an architect is obligated to defend himself when named in one. Normally, there is no way he can recover his legal expenses and other costs, even when his defense is successful, because a successful defense does not, in and of itself, indicate that the suit was frivolous. But when a lawsuit truly is without legal merit, it adds insult to injury if the defendant is not able to recover legal expenses from the offending party.

Now we have Rule 11, a somewhat subtle but important means of dealing with frivolous litigation. In part, it states: "The [required] signature of an attorney or party constitutes a certificate by him that he has read the pleading, motion, or other paper; that, to the best of his knowledge, information, and belief, formed after reasonable inquiry, [his action] is well-grounded in fact and is warranted by existing law or a good-faith argument for the extension, modification, or reversal of existing law, and that [his action] is not interposed for any improper purpose, such as to harass, or to cause unnecessary delay or needless cost of litigation.'

The italic words were added in the 1983 amendment and were designed to allow sanctions to be imposed on a party that acts in bad faith in filing or conducting litigation. If a plaintiff or his attorney is found in violation of Rule 11, the court can require the violator to pay the expenses

Mr. Kornblut is a registered architect, a practicing attorney in Washington, D. C., and the current chairman of the American Bar Association's Committee on the Construction Industry

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incurred by the defense-including reasonable attorneys' fees.

A recent decision indicates that the courts are going to take amended Rule 11 quite seriously
In 1985, Eastway Construction
Corporation sued The City of New
York in the U. S. Court of Appeals
after being denied access to citysponsored redevelopment contracts.
Principal officers of the corporation
and proviously controlled entities had previously controlled entities that were in default on city loans, triggering a city policy that precluded contracting with Eastway. This effectively put Eastway out of business because it specialized in such projects.

Eastway first sued in a state court to have New York's policy declared arbitrary and capricious The court ruled that the city's policy was a proper exercise of its discretion and dismissed the suit.

Eastway then commenced its action in federal court, listing 11 separate causes for the action, including two federal claims involving the antitrust and civilrights laws. The trial judge found:
"There is not any basis for a civilrights claim," and, "The affidavits and other supporting data [do not] show any violation of the antitrust laws." He did, however, reject the city's request for attorneys' fees, because he could not say that this was a frivolous case. Both parties appealed—Eastway because its action had been dismissed and the city because the judge denied the motion for attorneys' fees.

The federal Court of Appeals then, looked to the merits of Eastway's original claim. First, the court questioned whether the city's refusal to deal with Eastway was a violation of Eastway's civil rights. The applicable federal statute required more than a showing of being wronged by a state or municipal official. It required the deprivation of some right secured by federal statute or the U.S. Constitution. Eastway, however, had failed to even allege a deprivation of such a right.

Eastway's involvement in publicly financed projects did not rise to the level of a proprietary interest, which is something more than an abstract need, desire, or unilateral expectation. There was not, as there must be, a legitimate claim of entitlement.

Looking to the federal civil-rights statute relied on by Eastway to bring its cause of action, the court awarded attorneys' fees to the city because it concluded Eastway's claim was "unreasonable and groundless, if not frivolous.

Eastway's antitrust claim was somewhat more complex than its civil-rights claim. However, here too, it did not raise a colorable

federal issue that had not been properly dismissed in the lower court. Eastway failed to allege 'anticompetitive effect" in its claim that the city had conspired against it. The court said: "Eastway's complaint wholly fails to make a viable claim under antitrust laws."

Turning to the city's claim for attorneys' fees on this pleading, the court noted that a court has both inherent equitable powers and Rule 11 to justify the award of attorneys' fees in these circumstances. Quoting the amendment to the rule, the court said that the phrase "formed after reasonable inquiry" imposes an affirmative duty on each attorney to conduct a reasonable inquiry into the viability of a pleading before it is signed.

"Simply put, subjective good faith no longer provides the safe harbor it once did. When it is patently clear that a claim has absolutely no chance of success under the existing precedents and when no reasonable argument can be advanced to extend, modify, or reverse the law as it stands, Rule 11 has been violated." Accordingly, it was an error when the trial court had denied the city's motion for attorneys' fees in defending against the antitrust claim.

Federal trial courts in recent cases in California and North Carolina have come to similar conclusions In a lawsuit against government attorneys following a securities investigation of the plaintiff (Kendrick v. Zanides, 1985), the court, on the basis of Rule 11, ordered the plaintiff and his attorneys to pay the defendants' expenses and attorneys' fees. The court said that "the only reasonable conclusion is [that the plaintiff] and his attorneys filed the amended complaint to serve their vindictive purpose to damage the defendants' reputations and subject them to personal harassment.

In a patent infringement case (Coburn Optical Industries, Inc. v. CILCO, Inc., 1985), the court ordered the defendant to pay the plaintiff's attorneys' fees because the defendant failed to make a reasonable inquiry in connection with a motion. The court said: "An attorney has a professional duty to dismiss a baseless motion or lawsuit, even over the client's objection, and to do so promptly on learning that the client's position is without merit." To punctuate the court's seriousness about the importance of newly strengthened Rule 11 in curtailing litigation without a reasonable basis, the court concluded: "If judges turn from Rule 11 and let it fall into disuse, the message will be clear to those inclined to abuse or misuse the litigation process.'

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Marketing: Design your identity

Your calling card, letterhead, and other graphics present your image just as the buildings and spaces you design. Present what you want seen

By Lois Boemer

If I were to ask you, as a designer, to name the top corporate-identity programs in the United States, IBM's would probably head your list. IBM's image has become synonymous with good design. But, you say, IBM sells productsnot design services.

For architects and designers, whether in large or small firms, it is all the more important that you sell a design image. Each time you send a letter, distribute a brochure, or give out your card, you are portraying your strengths, weaknesses, design capabilities, and approach to projects. It is important for you to recognize this for what it really is: portraying your firm's corporate identity.

Clarifying that identityan important first step to directing it—forces you to take a close look at your business. This means understanding your process and approach to, as well as your parameters for, design. The clients you are hoping to attract will want to see, touch, and sense what sets you apart as a designer, partly on the basis of the design of the printed material you send them.

For instance, for one type of client you target, you may want to emphasize your use of CAD. For this client, a high-tech imagery in your corporate graphics, an emphasis on process, may be more important than full-blown pictures of every project you've ever completed.

For another type of client you want to target, you may want to drop the emphasis on such design means as CAD in favor of an emphasis on design per se. This does not mean that you do not use CAD; it just means that your emphasis should be on the finished product, the results of your esthetic capabilities, instead.

People, of course, are what the business of getting clients is all about and people also reflect your firm's image. Such questions as whether or not to list your firm's founders on your letterhead, whether to include all of the firm's associates, and, if so, in what order should be carefully considered. They too reflect your image.

As an example, one multidiscipline design firm (photos) does not list the firm's principals in its letterhead at all, but rather underlines the capabilities of its staff of over 200 people. Instead of principals, it lists "engineers,

surveyors, scientists, architects, landscape architects," and "planners." The rationale was that the firm's potential clientsincluding large development and real-estate firms-want to know what the firm can do more than who will do it.

To have an outstanding program, you must be willing to make a commitment

As you well know, good design does not necessarily mean spending more money. What is necessary is an imaginative and systematic approach to producing your graphic materials.

The principal graphic tool you need for a comprehensive corporate identity program is a grid system. It allows the graphic designer to adjust for any size and shape of the basic material listed below, for consistency in the design element's placement and proportions. It is a framework on which the designer can build such current and future materials as a letterhead (first and second sheets, and envelopes), mailing labels, covers for reports, brochures and proposals, business cards, project cards, client listings, resumes, process diagrams, seasonal-greeting cards, specialevent announcements, newsletters, presentation graphics, title blocks, transmittals, and even change of address cards.

In the design stages of the program, you should get, at least, ballpark figures relative to costs. You should also know what reproduces well and what does not before you proceed too far.

Only if you have graphic artists on your staff should your identity program be designed in-house. Architects are not graphic artists and vice-versa. Well-honed graphic skills, like architectural skills, are developed over time.

Assuming that you will hire your graphic artist, a major criterion should be his knowledge of the architectural profession. You go through a very special process when you design a building. Graphic artists should understand this process, but also be able to explain their process to you. And you should listen. Answer their questions frankly and succinctly. One of the reasons there is so much dissatisfaction with brochures is the lack of communication between graphic designer and client.

Finally, do not be afraid to be different. Promote what sets you apart—your unique individuality and talents.

Ms. Boemer is head of Boemer Associates in Boston, a marketing and publicrelations firm for the building-design professions, and counts among her clients The Boston Society of Architects.

The author uses a corporateidentity program developed for her clients, the BSC Group, to illustrate her points that all of the various elements—calling cards, brochure covers, letterhead, etc.—should be consistent, portray a clear image, and say something about what sets the firm apart. The program, designed by Laughlin/Winkler and Donna Tomcyzk of BSC, obviously emphasizes design sensitivity. But the products also emphasize process. For instance, the many firm principals are not listed on the letterhead but the disciplines that the firm offers are instead.





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Circle 46 on inquiry card

Management: When and how to use management consultants

The author applies a wisdom developed for all types of businesses to that of the building-design professional

By Jeffrey P. Davidson

Consultants are not supermen and superwomen ready to dash into your organization and straighten out all problems with swift, sure strokes. "Hire a consultant," when heard in a staff meeting, should be met with the following questions:

What is the problem?

· Why can't it be solved internally? · What kind of consultant, if any,

do we need? What procedures will we set up for overseeing the consultant?

· How can we work with a consultant to get the most input?

Of course, consultants can be hired to define better procedures even when things are running smoothly. But, often, consultants are hired to solve problems.

The closer you get to a clear, concise definition of a problem, the closer you will be to a solution. The problem with problems is that they elude easy definition. However, before you rush off to hire a consultant to solve one, attempt to narrow down the situation as far as you can.

If the overall problem is poor employee morale, what are the underlying causes? Are some employees favored over others? Are wages and benefits competitive?

Or, if the overall problem is marketing, is it because you have a personal attitude that marketing is somehow not important? Are there not enough resources to carry out effective and forceful programs?

Think not only of the problem's probable causes but of its possible solutions. This will help you decide whether you can cope or that you do indeed need a consultant.

Certain problems inherently lend themselves to solution by someone from outside your firm Indicators of the need for outside

assistance include:

- The magnitude and/or intricacy of the problem are such that there are not enough internal time and talents to solve it.
- The true state of affairs can be determined only by the objectivity of someone who is not involved.

You have already tried, and failed,

to solve the problem.

- You do not have the specialized knowledge required to solve it.
- You need new ideas or methods. • You can't get everyone in your

organization to agree on an issue. The problem that requires a consultant creates a new problem: the kind of consultant to hire.

Mr. Davidson is a certified management consultant in Falls Church, Va. He is the author of Checklist Management: The Eight-Hour Manager, published by the National Press in Bethesda, Md., and Marketing Your Consulting and Professional Services, published by John Wiley and Sons in Somerset, N. J.

There are approximately 35,000 management consulting firms in North America, as well as thousands of individual practitioners. Four categories of management consultants might be broken down into: individuals; small firms; general consulting firms; and full-service firms.

Many small consulting firms and individual practitioners have welldeserved reputations for specialized performance. You would tend to use a smaller firm when you have a specific need, such as a knowledge of accounting systems, marketing, or personnel administration.

General management consulting firms offer services in broader areas, such as information dissemination, finance, and systems and procedures. A full-service management consultant does this with greater resources and can assist in implementation.

Choosing a consulting firm or individual will depend not only on the nature of your problem but on whether the advantages of the greater attention given by a small firm offset its limited resources.

Previous experience with similar problems should be the first consideration when searching for a management consultant. But an effective consultant's experience does not necessarily have to be in the same field. A steel manufacturer does not hire a management consultant for a knowledge of steel, but for broadly applicable knowledge.

Philip Shay, the author of How to Get the Best Results from Management Consultants, recommends both a personal visit to consulting firms under consideration and to ask around

about them. Find out:
• How old is the firm?

 What are the principals' backgrounds?

Is its staff stable?

· What standards of professional conduct and practice does it have?

*Do you think you would enjoy working with this firm?

- Was the discussion with firm principals sufficiently challenging that they might stimulate you to see your problem in a new perspective?
- What clients has the firm served? How much business repeats?
- · What is its general reputation in the business community?

· How much time will the principals of the firm spend on your project?

Is its experience applicable? Give a consultant something on which to base a proposal; write a statement of the work to be done. Each proposal you receive in turn should cover the following subjects:

· A perception of your problem;

• The objectives in solving it; • The latitude needed, e.g., the degree of access to your personnel;

• The scope and nature of the engagement, including the areas to be covered by study;

· The general methods to be used; · A statement of the consultant's personnel who will do the work;

· An estimate of necessary time; An estimate of fees;

· How the billing will be done.

There are four principal fee arrangements that are used by management consultants:

 The per-diem or hourly fee is probably the most common. To make clients feel more comfortable with this arrangement, a consulting firm will often estimate a certain figure that its total fees will not exceed. This is called a bracket quotation.

• The lump-sum, or fixed-amount contract, is used most frequently in consulting arrangements with government agencies. The main attraction of this method is that it provides a firm budget. The major disadvantage lies in its inflexibility, since the scope of work is fixed.

· The retainer method means you reserve a certain amount of the consultant's time, usually for a year, when the work contemplated cannot be detailed in advance.

• The contingent fee means compensation is determined on benefits accruing from the service performed, and is seldom used because consultants cannot guarantee results, but undertake only to perform to the best of their ability and skill.

The Institute of Management Consultants has a code of professional conduct that shows what you should expect. Among its provisions:

· The interests of clients go ahead

of those of consultants.

· Consultants will be impartial and objective.

They will guard confidence.

 They will not serve competing clients without permission.

 They have an obligation to confer with a prospective client in sufficient detail to understand the assignment before accepting it.

 They will not take assignments they are unqualified to accept.

When you have settled on a choice, there are procedures for working with a consultant

"When things go wrong with consultants, the problems can usually be traced to not putting all agreements in writing and not communicating at each stage of work," according to John J. McGonagle Jr., vice president of management for consultants Helicon Group Ltd.

Besides guarding against the above problems, clients should:

Ask for alternate solutions.

• Put recommendations to work

right away to test them.
• Explain the consultant's purpose to the staff and its responsibilities

for cooperation.

"It is vital," says author Philip Shay, "not to withhold information or opinions in the hope of getting a more objective result from the consultant. If you have selected the right consultant for the job, that consultant will be equipped to make critical use of information from whatever source."

Many clients, especially if they are large companies, will assign a liaison team or representative to work with a consultant. The liaison's role is to provide information, oversee progress, and learn enough about any recommended programs to take over their implementation.

And don't, through lack of communication, let your consultant make classic mistakes One independent management consultant spent four months analyzing how to fit a new policy direction into the existing policy guide of a federal agency. Her report was over 100 pages long and included interviews with more than 30 different sources. She thought it was her best report ever.

The project manager at the federal agency told her it was completely off track, that it had not addressed the areas he had wanted to address, and that it was of no use

to him whatsoever.

This situation could have been easily avoided with better communications on both sides. The consultant assumed that the client understood where she was going with the report from her twice-amonth phone calls. The client, on the other hand, had not really paid attention to the phone conversations and was working under the mistaken impression that she was proceeding with the report on the basis of their initial meeting. She had changed the scope of the assignment, however, due to new information she had uncovered. He should have been more aggressive in overseeing her work while she should have sent him regular written progress reports.

Shay points out that another trap to avoid is asking a consultant to accept implementation responsibility. The consultant's job is to recommend a course of action, not to see that it is done. Nothing is more destructive of your employees' morale or of the proper role of the consultant than to leave the responsibilities of your firm's principals to an outsider.

If you have analyzed your problem carefully, determined your need, and followed the previous steps, you can profit by using a management consultant.



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Circle 47 on inquiry card

Finance: Little growth on this high plateau

By Joseph Spiers

Construction of nonresidential buildings boomed in 1985. And it boomed in 1984. Does this two-year streak mean architects can confidently look forward to growth in 1986? The answer is probably not [Business News, page 33].

The biggest and most general reason is that the economy is

getting exhausted:

Consumers have excessive debt loads that will thwart new spending. In particular, car sales, without cut-rate financing deals, should shift into reverse.

· Business sales and profits have slowed considerably in the past year. And with consumer spending sluggish, not much improvement is foreseen in the near future. Hence business spending on plant and equipment will not grow.

 Nor will government spending provide much impetus to economic growth as Congress grapples with monster federal deficits.

· The only sector of the economy that looks somewhat promising is foreign trade, thanks to the decline of the U.S. dollar. But the dollar is still strong by historical standards. So, while improving, trade will remain deep in the red in 1986.

There will not be much basic oomph to nonresidential

construction this year In confirmation of that view, a recent survey by McGraw-Hill economists found that business plans to raise plant and equipment outlays in 1986 by only 3.4 percent. Besides general economic reasons for doubting another year of strong construction gains, there are reasons embedded in specific construction markets as well-as reflected by construction put in place and spending on current construction activity, the basis of all the figures used here, as derived from the U.S. Census Bureau.

Before looking at individual markets, however, consider the current stage of the cycle for all nonresidential buildings (chart 1), including private-sector factories. offices, shopping centers, healthcare facilities, religious and educational buildings, hotels and motels, theaters, and terminals.

After surging 22 percent in 1984, building activity surged another 20 percent in 1985 to reach an all-time high of \$96 billion. This was even very impressive in after-inflation terms (chart 2), because inflation was low in 1984 and 1985, so that most of the spending increases represented actual brick and mortar. By contrast, in the 1970s

Mr. Spiers is senior economist for McGraw-Hill's Data Resources, Inc., which supplies economic information and forecasting to government, industry, and financial institutions.

and early 1980s, much of the spending increases represented inflation. Hence, when measured in dollars of constant 1972 purchasing power, the construction of nonresidential buildings in 1979 was actually lower than in 1966. It was only in 1984 that real spending surpassed its 1966 peak by a comfortable margin.

Besides illustrating long-term sluggishness, chart 2 also shows how cyclical the construction market is. Rarely do real expenditures on nonresidential buildings rise rapidly for more than two years in a row. The forecasting message: the 1984-85 boom may end

the current cycle.

Looking for a parallel situation in recent history, real nonresidential building boomed in 1978-79, following, with a lag, the end of the 1974-75 recession. Construction then continued to rise in 1980, but by less than 1 percent. The similarity to today's situation is that, following the 1981-82 recession, construction boomed (with a lag) in 1984-85. If the symmetry continues, 1986 will be a year of slow growth.

Special factors within isolated construction markets could make 1986 growth particularly weak Because of this, it would come as no surprise if overall activity fell this year. Potentially, the weakest growth area of nonresidential building in 1986 is offices. Because office construction has soared so high in recent years, it has far to fall. Since 1977, real spending has nearly quadrupled. In contrast, real building expenditures, excluding offices, grew 1.5 times from 1977 to 1985.

Such giant gains in office construction can't go on forever; or, in other words, what goes up must come down. A memento mori is the office-vacancy rate, tracked by Coldwell Banker and shown in chart 3. The vacancy rate is extremely high and rising, signaling that far too much office space is sitting on the U.S. market, with more still in the pipeline.

Not only is there too much space in general, there is much too much in areas of the country that, until recently, were the hubs of national economic growth. Any 1986 forecast assuming a vigorous Sunbelt demand for new office space is

unfounded.

In addition to little need for more offices in 1986, pure tax-avoidance motives may also be dulled due to tax-law changes brewing in Washington. No matter what tax package is finally adopted, it looks like tax shelters will get whacked. In that event, investors and developers would have to consider the fundamental economic justification of projects; and the

fundamentals are not good, as indicated by the skyscraper status of today's office-vacancy rates.

So offices are the wild card in 1986 construction. Activity in this market could conceivably fall sharply, pulling overall construction down a great deal. But other markets, too, are facing negatives: · Hotels and motels are in a situation somewhat similar to offices. Construction has skyrocketed since the late 1970s. But with consumers and businesses now crimping expenditures. occupancy rates should be falling. Meanwhile, investors thinking about sheltering money, not people, will look on hotel/motel projects with a closer, colder eye.

· Hospitals, the hot construction market of the early 1980s, headed for sick bay in 1984 after the federal government clamped down on Medicare payments and forced health-care managers to contain costs. Since then, hospitals have been reducing the length of patient stays, increasing out-patient care, and cutting the number of admissions. As a result, fewer new hospitals will be needed in the near

· Factory construction enjoyed good growth in 1985, following a modest gain in 1984. As importbattered manufacturers strive to be more competitive, they may again raise expenditures on plants in 1986. But increases this year will be tempered by industry's low capacity-utilization rates and sluggish sales growth.

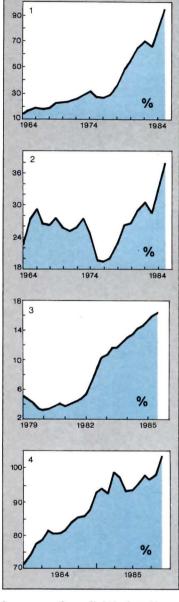
· Stores and other nonoffice commercial construction surged in 1981-85, with outlays doubling during that time. But the key forces driving this type of construction are new residential development and strong consumer spending. And neither homebuilding nor consumption is expected to grow

rapidly in 1986.

The general picture painted above is one of sluggish growth in nonresidential building this year. A forewarning of this sluggishness can be seen in chart 4, which tracks construction on a month-by-month basis from the beginning of 1984 through 1985. (The dollars for each month are annualized and adjusted for seasonal variation.) Note that after rising rapidly from early 1984 to the spring of 1985, the trend in construction spending flattened out, except for December when a spurt of offices came to the rescue.

Another important harbinger of slow construction growth in 1986 is that McGraw-Hill survey of business capital spending plans, mentioned earlier, which found business planning to raise spending on buildings and equipment by only 3.4 percent in 1986. The survey also found that companies plan to

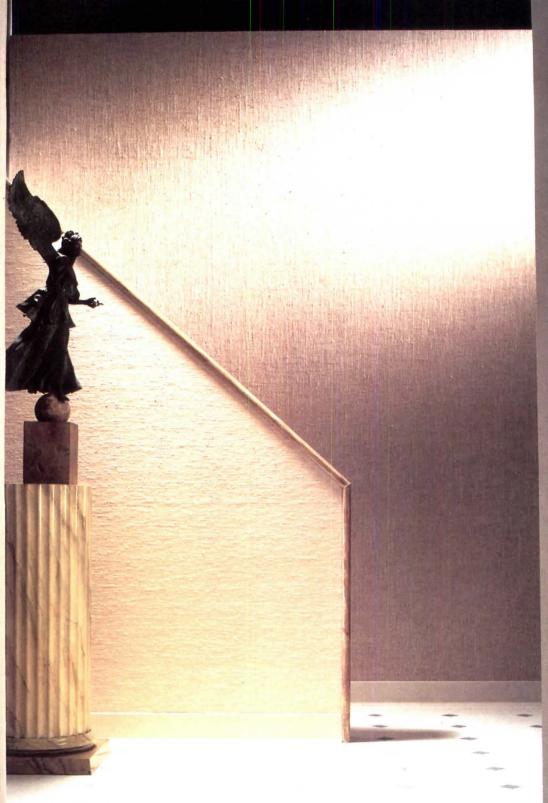
Chart 1 shows steadily rising billions spent on construction between 1964 and 1985. However, real expenditures, using 1972 as a base (chart 2), show there were cyclical swings. Chart 3 shows rising office-vacancy rates that may have a negative effect on overall construction. Chart 4 shows current expenditures in detail and a leveling effect.



increase outlays slightly for office buildings, but the results exclude speculative developers who should sharply reduce activity. Manufacturers did say they would

cut factory construction.

If you're looking for a silver lining, it is that—even if building does plateau in 1986—the plateau will be a high one. Although growth will probably be slow, the level of activity will still be one of the highest on record. So with that comfort in mind, worries about the marketplace can shift to 1987, when things could be worse. But whether better or worse will be determined by how well or poorly the economy performs through the rest of 1986. The only sure assertion is that the boom growth of 1984-85 will not return anytime soon.



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Architectural education: The re-emergence of the design thesis

Professor Cannady cogently explores here the pros, cons, and possible timeliness, of the demanding, self-motivated design thesis—plus some interesting thoughts on the academic, nonstylistic, impact of Postmodernism

By William T. Cannady



In schools of architecture throughout the United States, the design thesis is emerging as an increasingly important element within the design curriculum. This follows two decades or more of a shift away from rigorous attitudes about independent student work. In the '60s and '70s, many schools of architecture dropped the thesis completely. Often the reasons for change were associated with faculty and student concern for making the curriculum more "relevant."

"Doing your own thing" during this time frame did not mean going into an investigation quite as demanding as a design thesis might require today. Other reasons for change included efforts to make the curriculum more open-ended to optimize flexibility and choice. Programs also became less restrictive in terms of specific sequence requirements and began to de-emphasize terminal projects as a means of qualifying for a professional degree.

As a means of modifying curricula to open them to a more diverse student body, many schools shifted from the five-year B.Arch. program to the Princeton/Yale type of 4+2 program, which included four years of general education and two of professional programs. When this occurred, thesis studies also began to decline. With the fiveyear program, the thesis was sometimes used as a mandatory means of testing at the end of the course of study. However, with the 4+2 program, the design thesis remained available at a few schools throughout this 20-year period. Princeton continued to require a design thesis as a terminal project of the professional program. In general, the shift toward a separation of undergraduate and

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graduate/professional programs enhanced the use of the thesis to formally recognize completion of the first professional degree.

The focus of education changes Student work in the late '60s often focused upon architecture as a means of implementing social change. Projects dealt with issues of community planning, housing, and education. This eventually led to an interest, within design schools, in understanding the communication media, and in developing an interface between technology and the built environment. By the early '70s, design studios delved into problems with user-oriented programs, urban design issues, and projects which utilized integrated building systems. History and the traditional drawing techniques became less important and were replaced with methodology which diffused the relationship between theory and design. Architectural education broadened its base and widened its perspective during this period.

During the mid-'70s students

began to show interest in "getting ahead" within the profession. Drawing began to be seen as an important tool to that end, and one that had to be mastered. As a result, emphasis upon drawing quality began to increase rapidly. The coincidence of architectural students' reawakened interest in drawing as a vehicle for professional success-and the widespread publication of the evocative drawings of Graves, Krier, and others—brought forth conditions which set the stage for independent design studies.

With the emergence of Postmodernism, work in many schools began to address more fundamental questions and to relate these questions to design. Emphasis in design studios during the late '60s and early '70s was on issues; in the late '70s and early '80s, this emphasis began to shift to the relationship between meaning and drawing. While Modernism failed in its promise of transforming society in the arena of large-scale concerns (e.g. political, economic, social), Postmodernism swung the pendulum in the direction of smaller, more manageable issues which seemed more attainable.

Postmodernism's initial influence on student work was due to the stylistic aspects and images evoked through drawings. These fresh images began to be supplemented with an interest in new theory. Today this phenomenon dominates the work in most schools of architecture. During the '60s and '70s, the effect was one of broadening the base, while today faculty and students are focusing

upon a much smaller area of investigation into meaning in architecture. The new-found freedoms that Postmodernism ushered in also brought forth a call for more responsibility and selfrestraint. Theorists, academicians, and students began a search for methods of self-restraint, rules, or systems of meaning. By first removing all the rules, designers were given this freedom to explore. As Postmodernism is a natura evolution in historical terms, the emergence of the design thesis in schools is a parallel phenomenon. It is precisely the new awareness Postmodernism places on meaning and image that has made the design thesis a timely and effective educational concept.

Studio versus individual work Within architectural schools, a typical design studio begins with the studio instructor making a decision on the program to be offered, a decision most often based upon a desire to meet a perceived need of the students as well as to fulfill the stated and the implied goals of the curriculum. The ordering of such curricula serves to organize the studio sequence within the degree program into a coherent and meaningful whole. The studio instructor further clarifies the program by outlining issues, limits, and special considerations which are added to the program to serve his own particular area of interest. He indicates preferred methods and techniques of analysis and synthesis in which the students will be instructed, and which they will be expected to use during the term of the studio. An experienced teacher knows in advance the combination of constraints and opportunities required, and their likely consequence on the final product of the studio. A student's initial involvement with the program is his reading a typed version of the program on the bulletin board, or his receiving the program from the instructor on the

first day of school. In the process described above, the faculty, especially the design instructor, is trying to choreograph the studio by arranging the events to produce an educational experience—and a known result or product to be developed at the end of the time allotted. The design studio where the instructor controls the program does not allow the student to completely experience the reality of a designer being faced with defining the problem, orchestrating a program, and placing it within a personal, philosophical framework.

Because most curricula represent some form of congruence or, at best, a compromise between the

students' needs and the faculty's areas of interests, design studios tend to serve the average student's learning requirements. It is often assumed that the design studio experience can serve and meet the needs of all of the various types of students. However, in a typical design studio, one encounters students who require remedial work in basic design or skill development; students who may need to focus on analytical techniques, where rational problem-solving techniques are used as tools for breaking away from early preconceptions, or for proceeding when inspiration fails; students who must learn to concentrate on synthesis and feedback techniques to confirm a strong idea that emerges early in the design process; and students with motivation, talent, and a readiness to break away from the rest and do independent work.

The assumption that all of these types of students may not be served adequately with a common design problem is one of the ideas behind the design thesis. This is especially relevant when a curriculum attempts to set forth terminal studios which represent formal completion of a professional degree program, i.e., B.Arch. or M.Arch. In a typical architectural design

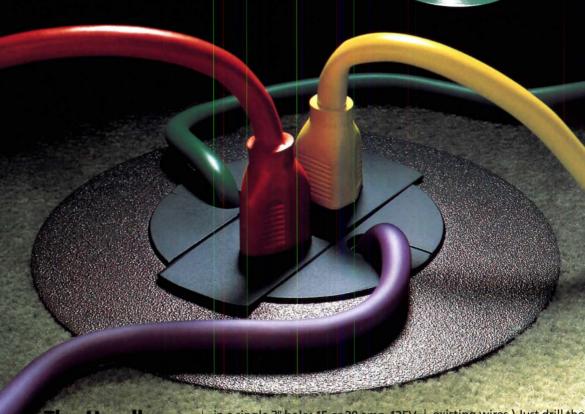
studio, the following conditions prevail: the problem must meet both student and faculty needs; the instructor is in charge of priorities and process; the momentum and pace is subject to studio schedule requirements; and the risk of failure is shared by the class, the instructor, and the curriculum. Furthermore, the instructor brings the issues to the students, and structures crits within his own methodological framework.

By contrast, the thesis studio offers the following opportunities: the problem can meet the individual student's needs, the student is in charge of the priorities and process. the work is self-paced, and the student has a personal stake in a high-risk situation. Furthermore, the student brings issues to the faculty, and criticism has to be sought and organized by the student.

Design thesis—a definition In defining a design thesis, it is important to clarify the distinction between three types of independent studies: independent design project, written thesis, and design thesis.

An independent design project allows the individual student to select and undertake the design of a specific project where the educational goals are stated prior to the exercise itself. These goals provide a basis for substituting individual work for required class





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or studio work. Typically, these projects might include design competitions, real-world projects, or opportunities to work with a certain instructor on a special, one-time basis. The student's main challenge, therefore, is to develop a design solution to a selected design

problem.

Second, a written thesis is a scholarly research paper that develops an hypothesis which is defended by reason. The thesis statement is supported by documented evidence, sources, qualifications, etc. In principle, a written thesis must prove that the hypothesis is validated through the use of the scientific method. A thesis of this type can be seen in various forms, such as term paper, master's thesis, or doctoral dissertation. The difference between these is the depth of research required, level of complexity, and time required for completion. The student's main challenge is to develop an hypothesis and to defend it soundly.

The third type of independent study, the design thesis, is more than a combination of the two mentioned above. A student must thoroughly research and develop a thesis statement which sets forth an hypothesis. The hypothesis is then defended, not by absolute proof, but through convincing arguments using precedent, history, analogy etc., and by the demonstration design that follows. The student's main challenge in this choice of study is to develop a theoretical ideal, convincing proof of that ideal, and a design which demonstrates the principles derived from the

proposition.

The design thesis, therefore, is a teaching tool which gives the mature student an opportunity to do independent inquiry in design. Further, it enables the student to: establish specific learning goals, e.g., the focus may be built around known strengths or weaknesses; (2) test general principles which are in the formative stages and intellectually attractive; (3) experiment with specific architectural ideas which he or she may be sympathetic with; (4) complete an architectural problem within a personal framework; and (5) determine priorities and organize methods and schedule.

A design thesis has several steps While each student works differently, the typical procedure in developing a design thesis might successively include: (1) researchreading and discussions aimed at a specific area of inquiry; (2) development of the thesis statement-framing of the hypothesis and methodology to be used in developing proof; (3)

analysis-exploration of historical precedents and examples where similarities occur or where case studies illustrate elements of the argument; (4) conclusive findingsdesign criteria established; (5) site and program-definition and analysis; and (6) demonstration design.

Knowing where to begin a thesis recalls the old and familiar "chicken and egg" problem. Which comes first, the hypothesis or the research, the thesis statement or the building program? It is important for the student to understand that the thesis statement must precede the selection of a specific building site and program. The thesis is primarily an intellectual processan attempt to order the way one thinks about design. It is not just another design problem.

In beginning a thesis, a student needs to develop an hypothesis—a tentative assumption made in order to test its architectural consequences. Students must strive to be open-minded at this stage and search for alternative types and forms of hypotheses—for an hypothesis is, by its own definition, "the first and least adequate stage of dialectic." An hypothesis attempts to prove that certain principles apply when examined under assumed conditions, and that design criteria can, in fact, be drawn from the findings. The subsequent design project demonstrates how the principles and criteria can be applied to the actual design of a building.

Several types of theses include

the following:

Theoretical—a new theory which expresses an awareness of either an original or an existing situation.

Typological—a fresh insight into an unknown situation in which the student attempts to invent a new type, a new variant, or a new hybrid.

Historical—a fresh insight into existing theoretical conditions, with students attempting to reject current philosophical principles with critical analysis and to propose principles which have been known in the past to meet the kind of situations encountered in the present.

Compositional—cognizance of relationship of elements such as building to landscape, structure to circulation, symbolic meaning to expression of technique in which the student proposes a new relationship.

Problems and prospects Since its inception at Rice University in 1980, the design thesis studio is offered in an attempt to broaden the options for candidates for the first professional degree. Presently, it is an elective honors

course. The design thesis is a twosemester, nine-month undertaking. The first semester is a three-credithour pre-thesis seminar that is organized to enable the student to conduct research, engage in discussion, develop a thesis statement, and establish a specific, building program.

Upon approval of the written thesis statement, the student proceeds with the second semester, a ten-credit-hour studio in which each thesis student shares studio space and the crits—as well as formal reviews at quarter points within the semester.

Two recurring central questions continue to confront the student. In the seminar, "What is your hypothesis?" In the studio, "How does your design describe your

hypothesis?"

The design thesis is an intensive investment in terms of faculty/student time. The thesis studio at Rice typically has six to ten students working with four senior professors. One of the four professors serves as coordinator of the studio as well as critiqueing and advising each student. The other professors serve as thesis advisors to the students, based upon mutual interest in the thesis. Often. additional advisors are added from faculty within the school, from other university departments, or from the outside community.

There are several problems associated with conducting a design thesis program. Determining who is qualified for completing a design thesis is difficult if the course is offered as an elective. Establishing standards and criteria for reviewing student work requires the faculty to be equally rigorous, for if the standards are high, few students may succeed, while if standards are relaxed, work may become shallow.

Are thesis-type terminal projects responsible as qualifying exams for determining eligibility for graduation from professional degree programs? If thesis programs are mandatory, should research-type theses or other options be made available to compensate for those students who are not qualified for the design thesis? Because the design thesis forces the student to speculate on his own, the student may fall short of expectations. While the faculty might find such an exercise valid even though the student did not make a convincing case, the student may have problems relating to it as one that is a worthwhile learning experience.

The thesis may not be for all Student attitudes vary regarding their ability and interest in questioning the world as it exists. Ēven today, many students want

answers, not debate. They do not always like countervailing opinions. The most acceptable arguments are not necessarily those which make the most sense, nor do students always work from deep convictions or strong inner beliefs.

In many schools of design today students find a confusing array of programs, degrees, curriculum tracks, requirements, and options. This is occurring at a time when the field of architecture is perceived by the public as a strong and important profession. As demand for quality increases, two opposing positions can be found regarding the number of students in the field.

First is the proposition that the profession will never be able to support all these students. That, in effect, the large numbers only serve to water down any chance of excellence within schools and to decrease overall earning ability of those who attain employment.

Second is the viewpoint that larger programs offer a diverse constituency which creates more opportunities in architecture and related fields (construction, real estate, government, and client roles). And, greater numbers of students provide support systems, more diverse faculties, and programs which enhance research

capabilities.
But other key questions remain. Are the types of programs in existence meeting the requirements of the profession? Is it valid to organize schools of architecture exclusively around the design studio? Should students be expected to do independent work in a field which tries to offer something to everyone, while emphasizing the team approach? Should qualifying exams or terminal problems such as theses be used in schools as devices for testing design competency and

proficiency?

The design thesis is not an easy undertaking. Its re-emergence is one of the major dividends that has resulted from past curriculum changes and the influence of Postmodernism. While it is too early to determine if it will continue to grow in use as an educational tool, the design thesis can play a fundamental role in giving students an opportunity to make a comprehensive expression at the end of their studies—an expression which synthesizes their learning. The thesis is not for everyone, however. Programs that acknowledge that some are ready for independent work, while others are not, may be more appropriate to the times.



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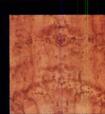




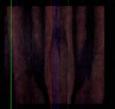
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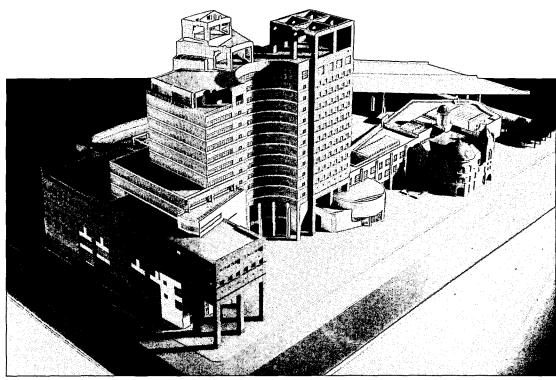


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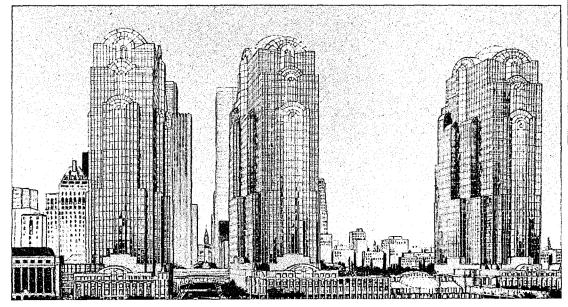
Bridging the gap between Modern and Moorish architecture



After years of watching the affluent suburbs of Connecticut's Fairfield County siphon off much of its economic vitality, Bridgeport is enjoying a modest commercial and residential revival, fueled in part by the city's admirable location along the heavily traveled Boston-New York corridor. While Richard Meier's proposal for the new downtown headquarters of People's Bank will not totally erase the city's

image as a fading New England mill town, the architect's signature brand of Modernism—and the brilding's highly visible location along the Connecticut Turnpike— might at least begin to alter some negative perceptions of the city. Like many other recent buildings by Meier, the 15-story Bridgeport structure will be characterized by a precise interplay of rectilinear and curved forms. Sheathed in a

combination of red granite, clear insulating glass, and gray-andwhite porcelain steel panels, the 440,000-square-foot complex will wrap around the Barnum Museum (upper right in model), an onion-domed landmark erected in 1893 whose exotic combination of Romanesque, Moorish, and Islamic architecture should offer an intriguing contrast to Meier's pristine grids.



Toronto continues to develop its lakefront

In an ongoing program to extend the city's downtown core south of the Gardiner Expressway toward the Lake Ontario waterfront, the Toronto Harbour Commission has proposed its most ambitious mixeduse project to date—a five-year, \$300-million development scheme, dubbed the Toronto World Trade Centre, that will comprise nearly 2 million square feet of office space, 70,000 square feet of retail space,

enclosed parking for 1,500 cars, and 500 units of condominium housing. The first phase of the project, designed by the Zeidler Roberts Partnership, calls for the construction of three setback commercial towers clad in greentinted glass. Set atop granite podiums, these structures will be connected by a six-acre landscaped pedestrian promenade parallel to Harbour Street.

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News briefs

A new beacon at West Germany's gateway

George H. Nelson, the influential architect, furniture and industrial designer, and writer, has died in New York at the age of 77. One of the most articulate advocates of mid-century functional design, Nelson is perhaps best known for the modular home and office furniture systems that he developed for the Herman Miller Company. He was also an editor of the professional journal *Architectural Forum* from 1935 to 1944.

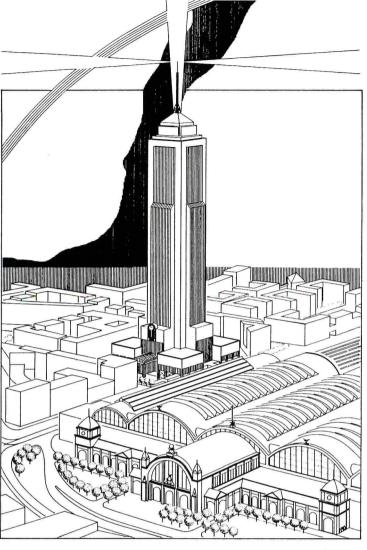
Frank Lloyd Wright's Solomon R. Guggenheim Museum in New York City has been selected to receive the American Institute of Architects' 25-Year Award, conferred annually "to recognize design of enduring significance." The Guggenheim is the fourth building by Wright to win the award.

The Bellevue Stratford Hotel, the venerable Philadelphia landmark that shut its doors last year after 80 years of operation, will be redeveloped as a mixed-use structure comprising eight floors of office space, a restaurant and shopping arcade, and, on its upper stories, a new hotel surrounding an open-air courtyard. Conversion architects are RTKL Associates.

Six design professionals are among the 22 artists and scholars recently announced as winners of Rome Prize Fellowships by The American Academy in Rome. The award recipients are Frederick Biehle of New York City; Kathryn A. Dean of Brooklyn; Norman Krumholz of Cleveland; Jeanne Giordano of Philadelphia; William P. Bruder of New River, Ariz.; and Elizabeth Dean Hermann of Somerville, Mass.

"Insight and Outlook: Views of British Design" is the theme of the 36th annual International Design Conference in Aspen, scheduled for June 15-20 at the Colorado resort. Speakers will include architects James Stirling and Norman Foster, artist David Hockney, film producer David Puttnam, photographer Norman Parkinson, and graphic designer Alan Fletcher. For information, contact Deborah Murphy, IDCA, P. O. Box 664, Aspen, Colo. 81612 (303/925-2257).

The Boston Foundation for Architecture is a newly formed grant-making organization that intends to provide financial support for public-education programs relating to architecture, urban design, and city planning in the Boston area. Its initial grants helped underwrite a lecture series at the Boston Museum of Fine Arts, and an educational film entitled Our Built Environment that addresses the design process.





For growth-minded Atlanta, bigger is still better



City planners in Frankfurt, West Germany, home of that country's tallest skyscrapers, are weighing a proposal to build a 54-story mixed-use tower adjacent to the city's landmark railroad terminal. The German Federal Railway owns the 20-acre site and has extended an option for a long-term lease once the project gets the go-ahead. The 663-foot-high building would be the first in a series of lofty secondgeneration skyscrapers that city fathers plan to erect in Frankfurt over the next 15 years. (The first generation of tall buildings has been rising in the city's financial district since the late 1970s.) Early renderings for the new structure, which is being proposed by a Mannheim investment group at an estimated cost of \$150 million, depict a contemporary campanile with a belfry-like, but bell-less, crown. The building would be situated along the southern flank of one of Europe's best-known 19thcentury railroad stations—a monumental Industrial-Age basilica designed by architect Hermann Eggert that features a German Renaissance Revival facade and a vaulted steel-and-glass shed over the tracks and passenger platforms. Preliminary designs by the architectural team of Helmut Joos, Reinhart Schulze, and Carsten Krüger-Heyden reveal a frankly Postmodernist scheme that consists of a 230-foot-square sandstonesheathed base whose provisions for retail space will form an extension of shopping arcades in the station, a tower consisting of 28 commercial stories and a 14-story hotel, and an underground parking garage for 600 cars. An all-weather, secondstory pedestrian bridge will link the new structure to the station. Robert Ingersoll, McGraw-Hill World News, Bonn

In the prestigious old residential section of Atlanta known as Buckhead, construction has begun on a mixed-use project whose scale is mind-boggling even to those accustomed to the city's policy of no-holds-barred development. Designed by Thompson, Ventulett, Stainback & Associates, Buckhead Plaza consists of four office towers ranging in size from 19 to 44 stories, 110,000 square feet of retail space, a 400-room hotel, and a 6,500-car garage. The buildings will be clad in a combination of precast concrete, polychromed Canadian granite, and green-tinted glass. Although the architects have attempted to relate the project to its context through small "transitional" buildings, it is difficult to envision the comfortable insertion of 2.8 million square feet of office space into a residential neighborhood, even when housed under domestic-feeling gable roofs.

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Back to the future

Far from the madding crowd, architects ponder urban issues in Monterey

California architects convened for three radiant and convivial days in early March at the annual Monterey Design Conference, sponsored by the California Chapter of the AIA. The theme of this year's meeting was "American Urbanism," but the Asilomar Conference Center, Julia Morgan's rustic, Craftsman-style summer-camp-for-grown-ups, seemed far removed from asphalt, subways, and slums.

Through a series of panel discussions, slide shows, and project presentations, architects, planners, and developers looked at the problems of our changing cities and proposed brave new schemes for their improvement. Judging from the presentations, the West Coast vision of the future has mostly uncloudy skies and, in contrast to the East, there were no discouraging words about the potentially dire effects of Gramm-Rudman-Hollings and tax reform. "Things are booming here because of the Pacific Rim trade," explained Marvin Malecha, dean of the School of Environmental Design at California State Polytechnic University in Pomona. "What's happening in Washington right now is just not touching us. Our development system works differently. We're able to exact a lot of the amenities from the private sector that the government provides back East. We tell them, If you want to build there, you have to put in public amenities.' And they do, because land values are so high that they know they'll turn a profit anyway.

With remarkable unanimity, the presenters affirmed their belief that the planning process and private enterprise would eventually correct the woes of American cities. Architect Charles Jencks advocated "legislating virtue" via "intelligent zoning." A master plan is a city's constitution, he explained. Said developer Robert Maguire III, "It is good business to make cities that we all enjoy living and working in.... Quality pays, and I think that's good news for all you architects.

At a Saturday morning session entitled "American Urbanism: Searching for a Direction," L. A./ Toronto architect Barton Myers expressed his optimism for master plans in almost the same breath as he explained how readily cities trade away their restrictions, a contradiction not entirely lost on the audience. Myers's "manifesto" for the city emphasized midrange density and decentralization-"multicity, not not just multicenter, for greater distribution of power' and he cited as examples Toronto, with its borough system of government, Washington, D. C., and Los Angeles. His views were

echoed by the other panelists, notably Jencks, who (quoting Colin Rowe) stated that "a good city is a collection of vest-pocket utopias,' and developer Wayne Ratkovich, who said he viewed cities as "a collection of urban villages where we can share our lives.

The success of these centers, Myers emphasized, hinged in part on improved public transportation, although neither he nor any other panelist speculated on who would pay for it if the federal government opts out of funding mass transit. When an observer broached the issue, Ratkovich retorted, "People seem to forget that railroads and airlines were established without the help of the government.

Not surprisingly, much discussion centered on California's ubiquitous suburbs—both its acres of tract housing and the way that conventional zoning has encouraged this "privatized landscape"—and the newer suburban centers that are diverting population and resources from the cities. San Francisco architect Jeffrey Heller discussed San Francisco's Downtown Plan and the resulting building-approval process (dubbed the "beauty contest"), showing in slides what he termed the positive effects that its restrictions were having on building design. At the same time, he warned, the plan, which "will allow very little future development through the year 2000," shows strong public reaction against development." 'No growth' has serious economic implications for the profession," Heller said. "It will also push growth out into the suburbs and further threaten our already diminishing greenbelt.

One of the conference's more cautionary voices was that of David Childs, a partner in Skidmore Owings & Merrill's New York office, who charged that "some cities have become development junkies" in their "headlong rush to develop" real estate as a "radical new source of income." He chastised the City of New York for issuing RFPs to develop major properties like Columbus Circle that include no design guidelines and treat financial return as the most significant factor in the proposal. "Public land should be developed with the public in mind," Childs said, "and I believe that responsible developers would be delighted to cooperate.'

If the conference is an accurate reflection, California is an oasis of enthusiasm in anxious times. Its architects are brimming with confidence in the state, its economy, their ability to solve its problems. To this observer, there was a sense of immunity from the rest of the country's problems. Let's hope they're right. Julia Lichtblau



When the Prudential Insurance Company unveiled plans for its Chicago regional headquarters in 1952, the 41-story aluminum-andlimestone-clad building—the city's first postwar skyscraper—heralded a torrent of rectangular curtainwall office slabs that followed in Chicago and elsewhere. For a major addition to Prudential Plaza, the company has elected once again to follow the latest architectural

fashion, this time by looking into the past. Plans drawn up by Loebl Schlossman and Hackl call for a 64-story office tower whose setback granite-and-glass facades and lofty faceted crown allude to the early 20th-century skyscrapers that Naess & Murphy, architects of the original Prudential building, so defiantly ignored. At 1,021 feet the new structure will be the fourth tallest building in the city



Tilt-up Postmodernism

At first glance the Brea Tech Center near Los Angeles seems a pleasant, but unremarkable, assemblage of classically inspired low-rise office buildings designed by architects Fields & Silverman. What makes the project unusual is its tilt-up concrete construction, an economical (in this case, \$22 per square foot) building mode usually reserved for one-story industrial buildings and warehouses.



One man's vision of coastal access

Booking architecture: A symposium on architectural publishing at Columbia

In early March, the Temple Hoyne Buell Center for the Study of American Architecture at Columbia University sponsored a two-day symposium entitled "The Building and the Book: Architectural Publishing in America." Robert A. M. Stern, director of the Buell Center, presided over the event, which included papers by 18 scholars, journalists, and amateur architectural historians, as well as brief question-and-answer periods. Attendance required paid registration, yet Wood Auditorium at Columbia's Avery Hall boasted an audience of well over a hundred at both sessions of the symposium.

The festivities convened with a Friday afternoon session devoted to "American Architecture Through American Eyes: Book Trends and Economics, 1776-1986." Chaired by Victoria Newhouse, president and publisher of the Architectural History Foundation, it consisted of seven papers of varying length, quality, and interest, which together attempted to provide something of an overview of architectural book publishing in this country from the late 18th century to the present. A vast array of facts and figures—familiar as well as recondite, trivial as well as illuminating-were dispensed in presentations with titles like "The Beginnings: Architectural Publishing in America, 1776-1840,"
"Selling Architecture: Promotional Literature, 1895-1940," and "The Making and Selling of Architectural Books in America, 1895-1945.

Perhaps the most cogent contributions to this session were made by Keith Morgan from Boston University, who gave a balanced and informative outline of "Writing on Architecture: History and Criticism, 1895-1945," and by Newhouse, who provided a detailed account of the recent economic and technical history of architectural book publishing in the United States. Spiro Kostof, professor of architectural history at the University of California at Berkeley and author of the encyclopedic History of Architecture (1985), reviewed trends in architectural books after World War II. No one familiar with Kostof's work will be surprised to learn that he championed "revisionist" architectural studies that would deliberately elide the distinction between architecture and mere building-between high art and popular culture—and give special attention to various "ethnic environments" and other aspects of "the social use of architectural space" that have been neglected by traditional architectural history and criticism.

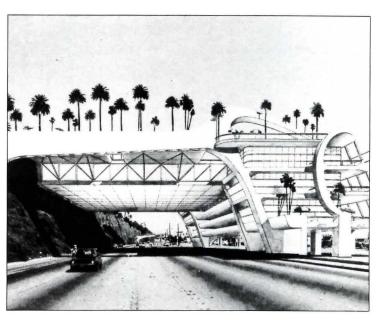
On Saturday morning the symposium turned its attention

from books to architectural magazines and journals. No doubt because periodicals have tended to have larger, more immediate impact on the profession, this session was longer and in some ways more ambitious. Suzanne Stephens, for many years an editor at Progressive Architecture and now a contributor to House and Garden, Vanity Fair, and other journals, chaired the session. Its 11 papers attempted to trace the development and influence of architectural criticism, excluding newspaper criticism, in this country from its beginnings in the mid-19th century to the present, and here again the presentations varied widely in quality and

Essentially historical reports recounted the rise of professional journals and noted the importance of literary magazines like Harper's and Scribner's as vehicles for such eminent architecture critics as Montgomery Schuyler and Russell Sturgis. Leland Roth, who teaches at the University of Oregon and is author of McKim, Mead & White, Architects (1983), described the enormous influence of women's magazines, especially The Ladies' Home Journal, as purveyors of model-house designs-including several designs by Frank Lloyd Wright—at the turn of the century. Thomas Bender from New York University delivered a thoughtful paper entitled "Architecture and the Journalism of Ideas," which showed how architecture has moved in and out of the center of intellectual discourse over the last century. Looking back to such influential figures as Herbert Crowley, a former editor of RECORD and founder of The New Republic, and Lewis Mumford, Bender conjectured, probably correctly, that today no "major intellectual" has incorporated architecture into his work.

There was much else that one might note about the day's offerings. For sheer curiosity value, Rice University's Peter Papademetriou propably must take the palm. Papademetriou delivered an exceedingly long and often tedious talk about post-World War II architectural journals. Whenever he quoted someone who used a male noun or pronoun to refer to architects, Papademetriou would insert an editorializing "sic," presumably to demonstrate that he at least was not in collusion with such an unconscionably accurate use of standard English.

Such anomalies have of course become endemic to chic academic rhetoric, and, in fact, perhaps the most striking feature of the day's proceedings was their thoroughly academic cast. The more specialized continued on page 55



Although residents of Santa Monica have long enjoyed the city's near perfect setting atop palisades overlooking the Pacific, many are less enamored of recent high-rise commercial development along the bluff that threatens to transform the once-peaceful resort into a faceless extension of Los Angeles. To address this problem, architect Skylar Brown of nearby Malibu has come up with a conceptual design,

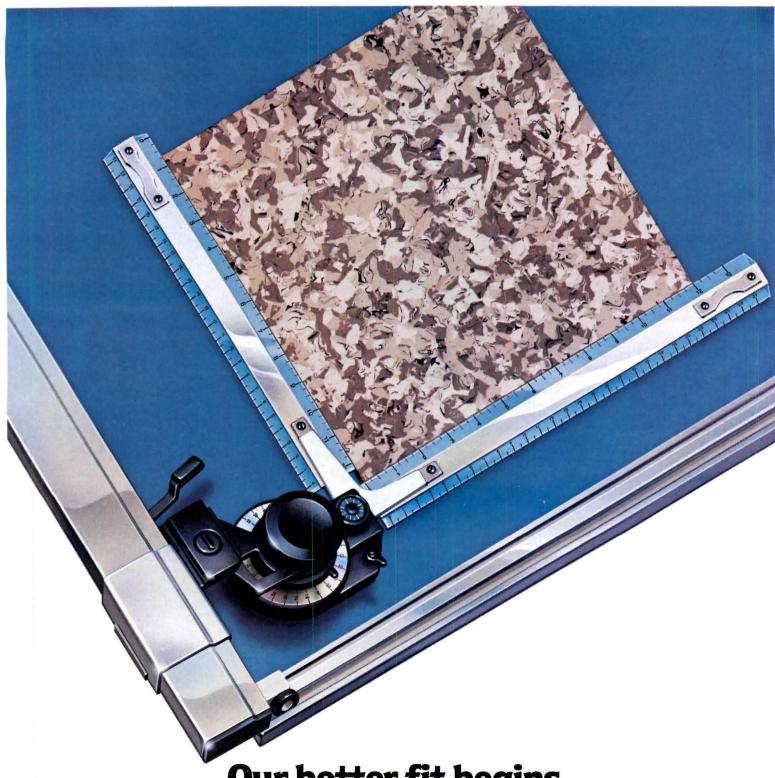
dubbed Santa Monica Span, which would extend an existing park over Pacific Coast Highway and connect with futuristic-looking four-story beachside structures that could be developed for commercial and residential uses. In addition to keeping the city's skyline low, the proposed modular units would help stabilize palisade erosion, says Brown, and facilitate the public's access to the beach.

A place where city and river meet





An invited competition aimed at revitalizing downtown Davenport, Iowa, has resulted in an intriguing proposal, called River Center Plaza, that calls for a 140-foot-square raised open space flanked by lowrise arcaded buildings on its east and west boundaries. Designed collaboratively by artist Elyn Zimmerman and Paul Broches of Mitchell/Giurgola Architects, the plaza incorporates a 150-foot-long metaphorical "river" meant to symbolize Davenport's historic association with the Mississippi located just five blocks south of the project site. In order to underscore further the link between Davenport and the river, the designers have included stone benches engraved with the writings of Mark Twain, and they have proposed planting an allée of red oaks that would literally connect the plaza to the city's waterfront.



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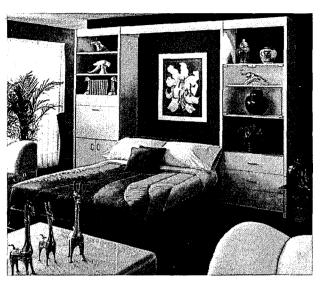
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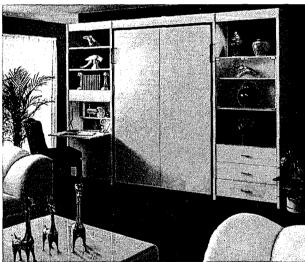
FLOOR PRODUCTS

Design news continued historical subjects naturally demanded scholarly expertise, but what about current journalistic and critical practice? How was it handled? With one or two exceptions, the speakers that Saturday were academics, not practicing critics, and there was not a single representative from the major architectural journals on the roster—surely an odd turn of events for a symposium supposedly devoted to architectural criticism and journalism. Even the exceptions, notably Suzanne Stephens and Joan Ockman (who worked for some years on the now-defunct *Oppositions*), only served to underscore the academic atmosphere of the event. Stephens's talk, "Learning to Love Complexity: Professional Periodicals, 1965-1980," was essentially a brief for the Postmodernist eruption inaugurated by Robert Venturi's 1966 manifesto, Complexity and Contradiction in Architecture—a book and a movement born, bred, and boosted in the academy. And the burden of Ockman's talk was epitomized in its title, "Positions and Oppositions: The Development of a Critical Discourse in the 'Little' Magazine and School Journal, 1965-1970"—a "discourse," incidentally, that Ockman aptly characterized when she described the orientation of Oppositions as a blend of Marxism, neo-Marxism, and

semiotics. Not surprisingly, the most pressing questions facing architectural journalism today, questions about the esthetic tasks of architectural criticism, were left pretty much unexplored. Criticism was often mentioned, to be sure, and its absence deplored; but virtually nothing of substance was said about it, nor was a particularly high level of critical acumen at work in the presentations themselves. Indeed, it was fitting that the event should conclude with a presentation by Thomas S. Hines on the professional and popular reception of Tom Wolfe's From Bauhaus to Our House. Architects have been conducting a shameless love-hate affair with Wolfe ever since his abysmal book was published in 1981, simultaneously repelled by his philistine caricature of Modernist architecture and intoxicated by the media attention that his book garnered for itself and, by extension, for the architectural profession. As it happened, Wolfe was in the audience that afternoon and was invited to reply to Hines's paper. In a few words that marked the end of this symposium on architectural journalism, Wolfe told us that his catchy title was more or less an afterthought, that his real topic was not architecture but the ethos of what he called the academic "compound," and that in fact his book's real subject was "not esthetic at all." And that, it seemed to me, just about summed it up. $Roger\ Kimball$

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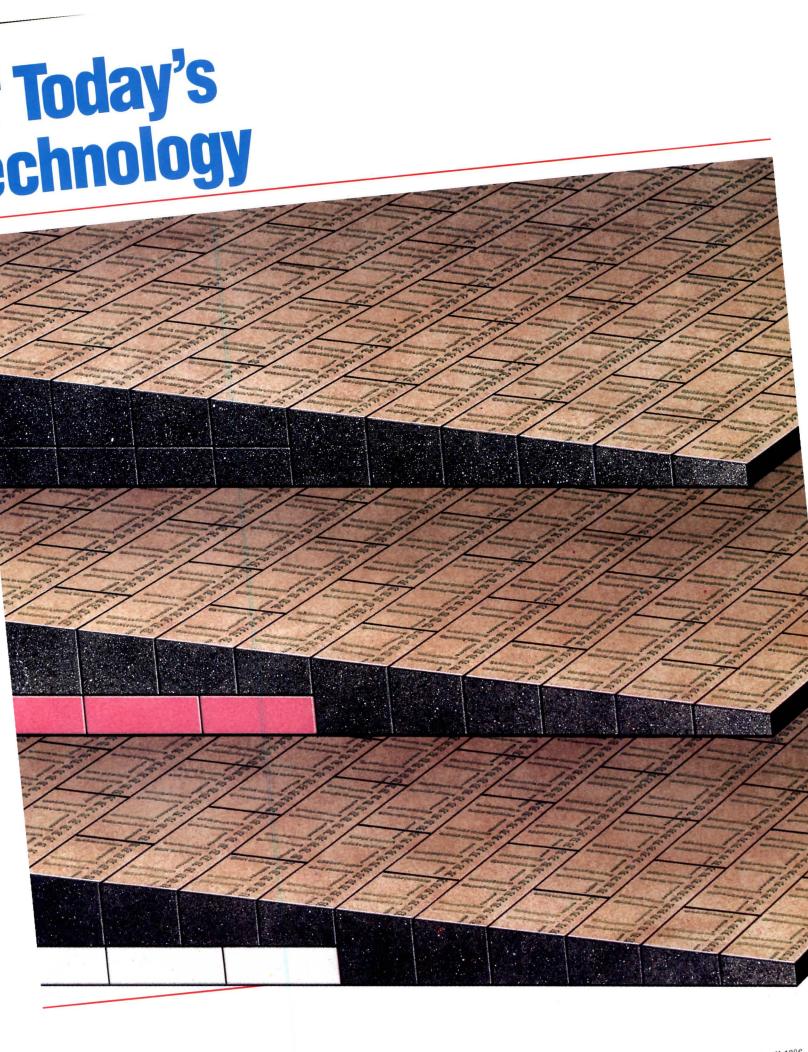
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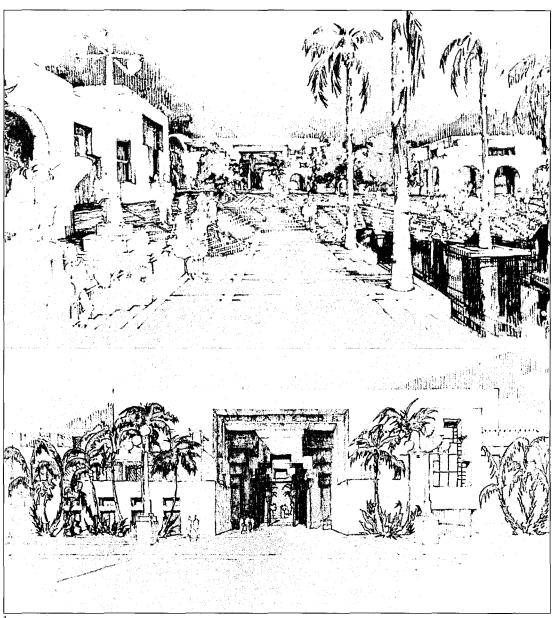


Design awards/competitions: City of Oceanside, California Civic Center Design Competition

Charles Moore and the Urban Innovations Group of Los Angeles, working in association with the Danielson Design Group of San Juan Capistrano, have won a national competition to design a new \$20-million civic center in Oceanside, California. The complex is proposed for a three-block downtown site bounded by Hill, Nevada, Third, and Fourth streets, and is envisioned as the centerpiece of Oceanside's downtown renewal program. The city hopes to complete the center by 1988, Oceanside's centennial year. The competition brief called for approximately 170,000 square feet of general

1. Premiated design: Charles Moore/Urban Innovations Group, in association with Danielson Design Group. According to the summary provided by Moore's team, the winning design "starts from the legacy of Irving Gill and his search for a clear, simple, and honest architecture that luxuriates in the temperate climate and lush landscape of coastal southern California. We use his plain white walls, unadorned concrete arcades, disciplined fenestration, and flat roofs as our architectural vocabulary and then allow ourselves the exuberance of bright colors with tiles in niches at the entrances, and in the jambs and soffits of deep-set openings."
References to Gill's architecture seem especially apt in Oceanside, given that the town's existing municipal complex was designed by Gill in 1929. Although the city intends to demolish most of Gill's buildings on the site to make way for the new center, Moore's scheme does call for preserving a Gill-designed firehouse and converting it into a recreational facility. Like many of the competition entries, Moore included generous provisions for terraced public plazas (top drawing) that step down the sloping site from a main entry court at Ditmar Street (bottom drawing). A whimsical aspect of the plan is a library plaza floor made of colored tiles arranged in the shape of an alluvial fan which, at its edges, turns into real water that spills into a palm-studded pool. "Mature, sophisticated architecture" was the jury's characterization of the proposal. "It seems an open, userproposal. It seems an open, user-friendly civic center that is in scale with the community." Added the city's mayor Larry Bagley, "I could walk by that complex and know I was in Oceanside."

2. Finalist: Kaplan/McLaughlin/ Diaz, in association with Keniston & Mosher. Although the competition had no provisions for an official runner-up, several jurors and many in the community felt that the proposal by Kaplan/ McLaughlin/Diaz offered the Moore scheme its greatest challenge. Replete with references to Oceanside's topography, this parklike plan would have incorporated several water elements, including a stepped cascade, a midsite reflecting pool, and a waterfall/estuary—all meant to recall the path of the nearby San Luis Rey River. The linear form of city hall evokes historic piers, complete with "seaside" pavilions built out into the reflecting pool (right). A continuous wall along Third Street contrasts with a more inviting public entrance along Fourth Street.





municipal office space, a 40,000-square-foot main library, a 7,000square-foot district fire station, and provisions for parking and landscaped open space—all intended to serve a rapidly expanding city in northern San Diego County that is expected to grow from its current population of 92,000 to 130,000 by the year 2000. An unusual aspect of the competition was its high degree of public participation: the five finalists' entries were exhibited at a local branch library, and Oceanside residents were invited to submit written comments on the designs. Although the jury was not obligated to go along with

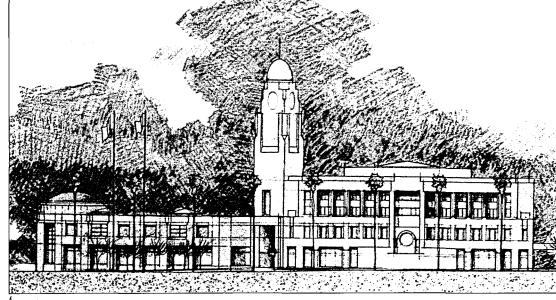
public opinion, the winning scheme by the Charles Moore/Urban Innovations Group team did appear to be the peoples', as well as jurors', choice. We illustrate below Moore's premiated design and proposals by the four other finalists, selected from 59 competition entries by professional jurors Michael Pittas, AICP, Hon. AIA (jury chairman); Garrett Eckbo, FASLA; Donlyn Lyndon, FAIA; Robert Mosher, FAIA; and Peter Samton, FAIA. Jurors representing the community were Marion Bryant, Lucy Chavez, Nancy Jakovac, Warner Lusardi, Dr. John MacDonald, and Ernie Taylor.

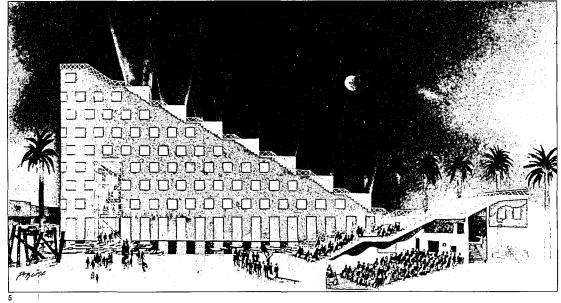
3. Finalist: ELS/Elbasani-Logan, in association with Winn & Cutri. A six-story domed city hall (right) terminating the vista along Freeman Street is the dominant element of a scheme that would have preserved fully one-third of the building site as a "land bank" for future development. Administrative offices extending as wings on either side of city hall reinforce the east-west orientation of the site. This architectural ensemble, together with the new library and council chambers building, opens onto a heavily landscaped pedestrian plaza fronting Third Street that the architects say "celebrates the accessibility of Oceanside's citizenry to its government." The curving facade of the city council chambers echos the contour of a raised circular platform at the center of the site.

4. Finalist: Heller & Leake. Perhaps more than any of the other finalists, Heller & Leake's submission exhibits the timehonored symbolic elements one traditionally associates with civic architecture. A tall campanile reminiscent of Bertram Goodhue's work in San Diego is the focal point of the project and serves as a link between city hall—a three-story structure organized around a rotunda (right in rendering)—and the library. This building ensemble faces a ceremonial plaza, or "civic green," located at the corner of Hill and Third streets. A pedestrian arcade crosses the site and connects city hall to a new parking garage that would have replaced the Gill firehouse. Although some jurors admired the way the architects concentrated their buildings at one end of the site, others criticized the design as overly conservative.

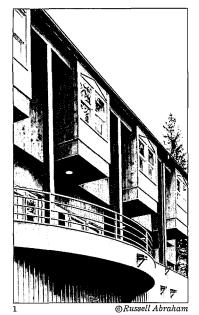
5. Finalist: Arquitectonica, in association with Friedson/Robbins. Although Arquitectonica was alone among the finalists to eschew any allusions to Oceanside's historic architecture, the Miami-based firm nonetheless presented a scheme that is highly referential. According to the architects, four brightly colored, wedge-shaped buildings housing city offices, council chambers, a library, and a fire station are meant, depending on one's mood, as metaphors for Pacific waves, rolling inland hills, or billowing sails of boats moored in Oceanside's harbor. Stepped grandstands atop each building were designed as viewing galleries for urban performances and festivals. While the jury praised the scheme as the "most courageous and daringly innovative" of the finalists, they ultimately rejected it as too great a risk.

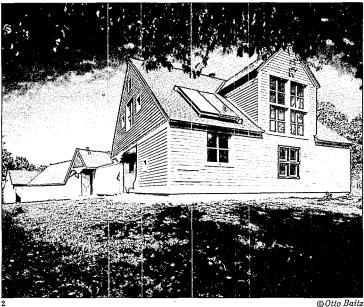


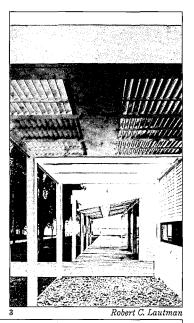


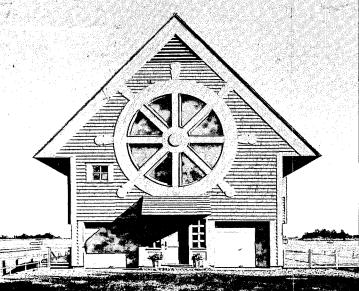


American Wood Council 1985 Design Awards







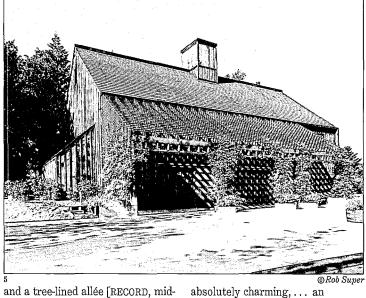


1. The Aware Shelter, Juneau, Alaska; The Miller/Hull Partnership, Architects (Honor Award). An 8,000-square-foot temporary shelter housing up to 48 victims of domestic violence was designed as a comfortable rustic lodge. The building is sheathed in a combination of fir-veneered boardand-batten siding and cedar planks-wood finishes that recall the vernacular residential architecture of southeastern Alaska. A semicircular meeting room at the building's northern end offers impressive views of the oners impressive views of the surrounding hillside. The jury called the project "a strong, highly suitable concept [and] a warm, sheltering environment."

2. Shelly Ridge Girl Scout Center, Miquon, Pennsylvania; Bohlin Powell Larkin Cywinski, Architects (Honor Award). A five-building rural retreat for Girl Scouts from

inner-city Philadelphia exhibits a rustic vocabulary of wood structural and decorative elements meant to recall local farm buildings. A long south wall of glass on the camp's central building emits solar heat, while a massive fireplace, elevated on a platform for small seating groups, dominates the interior space. The jury praised the architects for their "traditional yet fresh approach. The buildings are simple where it makes sense to be simple, decorative where appropriate, and totally related inside and out."

3. Tidewater House, Eastern Shore, Maryland; Hugh Newell Jacobsen, Architect (Honor Award). "A simple, classic design with beautiful scale and excellent flow from one space to another" jury's characterization of a weekend house that consists of four pavilions lined up between a pond



April 1984, pages 74-81]. Three sides of the exterior are wrapped with floor-to-ceiling louvered shutters which, when closed, form a continuous surface with clapboard siding. When raised on motorized pulleys, the shutters become trellislike sunscreens that shade stone terraces and floors 4. House on Long Island Sound, Stony Creek, Connecticut; Steven Izenour of Venturi, Rauch and Scott Brown, Architect (Honor Award). Built on a rocky pier, this woodshingled bungalow exhibits two whimsical land- and water-facing facades [RECORD, mid-April 1984] pages 124-127]. A south-facing porch suggests a stylized Greek temple to visitors arriving by boat, while a huge window in the shape of a high years a stylized to the shape of the shape o a ship's wheel greets overland guests. The jury praised the design as "handsomely composed and

absolutely charming, ... an extremely strong concept carried all the way through with well thoughtout detailing.

5. Fisher Winery, Santa Rosa, California; William Turnbull Associates, Architects (Honor Award). The jury called this northern California winery "a simple, straightforward design, beautifully crafted, that combines barn imagery and working elements within a single volume.... [It is] everybody's snapshot image of how a building sitting in a field should look." Built entirely of fir and redwood sawn on-site to make additional land available for grape planting, the structure features a trellis overhang that creates changing patterns of light and shade on an otherwise chaste exterior. Beneath a wood-shingled roof, large scissor trusses dominate a 5,100-square-foot interior.

A winery in California, a Girl Scout retreat in Pennsylvania, and a shelter for victims of domestic violence in Alaska were among the ten new buildings recently cited by The American Wood Council in its 1985 Wood Design Awards Program. Six projects received honor awards, and four were recognized with citations. In selecting the winners from 250 national entries, the jury observed that "the best designs share a simplicity of concept and treatment with wood, whether left natural or subjected to color, whether ornamented with verge boards or using structural members as decoration. The

diversity of the winning projects suggests that wood is a more flexible material than is generally imagined." Jurors for the biennial program were David Childs, FAIA, of Skidmore, Owings & Merrill in New York City (chairman); Robert J. Frasca, FAIA, of Zimmer Gunsul Frasca Partnership in Portland, Oregon; Adele Naude Santos, chairman of the department of architecture at the University of Pennsylvania in Philadelphia; Robert A. M. Stern, FAIA, of Robert A. M. Stern Architects in New York City; and Ronald J. Thom, FRAIC, of The Thom Partnership in Toronto.

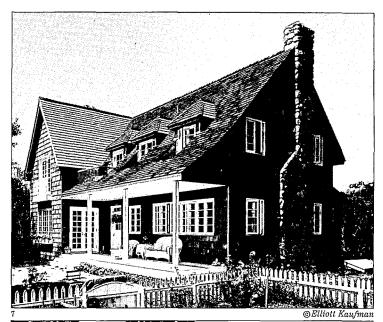






vernacular."

indigenous architecture. Wood 8. Rosewalk Cottage Court, Seaside, Pt. Washington, Florida; applications include white cedar Orr & Taylor, Architects (Citation). shingles and stained pine trim on This picturesque assemblage of 15 the exterior and white-stained poplar ceilings, cedar decking, and red oak floors on the interior. The clapboard-sided houses ranging in size from 800 to 1,200 square feet is jury called the house "sensitive to located in Seaside, a new planned its context and the regional resort community on the western tip of the Florida panhandle. 7. Iooss Residence, Montauk, New York; Michael A. Geyer, Architect Arrayed around a courtyard embellished with gazebos, trellises, and pergolas, the cottages have (Citation). A shingle-clad, 2,300square-foot house on the coast of broad covered verandas, interior







lofts, and such architectural details as cupolas, octagonal libraries, and inglenook-type dining areas. Widow's walks and second-story porches permit views of the Gulf of Mexico. The project "revives a tradition of well-detailed homes in wood," said the jury. "[It is] an expression of the charm once associated with summer resorts by the sea.'

9. House in Westchester County, New York; R. M. Kliment and Frances Halsband, Architects (Citation). The jury called a 5,600square-foot weekend and summer retreat near New York City [RECORD, mid-April 1985, pages 70-77] "an imaginative recall of traditional forms in the Shingle Style." Situated at the edge of a lake, the structure boasts a symmetrically massed entrance portico that contrasts strikingly with a more fragmented rear

elevation. "The design succeeds very well," observed the jury, " a distinct sense of entrance and a strong processional sequence leading to the view of the lake." 10. Fitzpatrick Residence Pasadena, California; Gilbert L. Hershberger, Architect (Citation). The California Craftsman houses designed early in this century by Greene and Greene were stylistic prototypes for this 3,500-squarefoot bungalow. The structure's exposed redwood post-and-beam framing system, set on a six-foot module, is enhanced by trellises above the patio and notched rafter ends that project from the roof to form generous eaves. "An artfully detailed house that exploits the natural color, warmth, and texture of wood," noted the jurors. "Its regional character is highly appropriate to the tradition of the area."

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Books

John Ruskin: The Early Years 1819-1859, by Tim Hilton. New Haven: Yale University Press, 1985, \$22.50.

Reviewed by Roger Kimball

This beautifully written and meticulously researched account of the first 40 years of John Ruskin's life is an exemplary production. Although the book does not supply us with any startling new revelations about Ruskin's life or work, it proceeds with a judiciousness, a command of Ruskin's oeuvre, and a sense of the great critic's place in the history of modern thought that make it a minor masterpiece of biographical writing. The author-who like his subject has taught both painting and art history-has written monographs on Picasso, Miró, and Anthony Caro and is a regular reviewer for The Times Literary Supplement. The present work, the first of two projected volumes, takes us through Ruskin's youth and school days, his disastrous, unconsummated marriage of six years to Euphemia Gray, and the composition of most of his important works devoted primarily to art and architecture.

These are the years that saw publication of *The Seven Lamps of* Architecture (1849), the three volumes of The Stones of Venice (1851-1853), and the five volumes of Modern Painters (1843-1859)—that landmark of art criticism which Ruskin began at the age of 23 as a defense of the controversial painting of J. M. W. Turner, one of his lifelong artistic passions. They are also the years of Ruskin's discovery of medieval art, his involvement with Pre-Raphaelitism, and the beginning of his interest in the arts and crafts movement. The later, socially "activist" Ruskin, the Ruskin of Fors Clavigera, The Crown of Wild Olive, and Munera Pulveris, only just began to assert himself in these years. Hilton's consideration of that side of Ruskin's activity, though touched upon in the concluding chapters of this book, has been mostly left for the anticipated second volume.

Ruskin was the doted-upon only child of a successful sherry merchant and a fiercely devout, Evangelical mother. The Bible played an enormous part in his education and, gifted with a prodigious memory, Ruskin had large passages of it by heart at an early age. His parents' attitude is perhaps best characterized as stern

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but loving, their affection constant to the point of being oppressive. One is somehow not surprised that Ruskin should describe his home as an Eden where "all the fruit was forbidden." Yet Ruskin remained extremely close to his parents. When he went up to Christ Church, his family, too, moved to Oxford. Throughout his three years residence as an undergraduate, it was Ruskin's habit to take tea most afternoons with his mother and to sit with her until the college gates closed in the evening. In later years Ruskin would travel in Europe for months at a time with his parents and, even after he was married, would work and often sleep in their house.

Throughout this chronicle, Hilton writes with a rare combination of tact and forthrightness. He draws a sympathetic portrait of Ruskin that does justice to his deeply influential achievement as a critic and cultural cynosure without discounting his many peculiarities and failings, both personal and professional. He recognizes, for example, that the purity of Ruskin's esthetic vision was at once the source of his magisterial voice and also a certain narrowness of taste. "Inflexibility was always a danger to his sensibility," Hilton observes, adding later that Ruskin's judgment was sometimes hindered by "the illusion

that the same art should be made by

everybody."

As Hilton notes, hardly any of Ruskin's books fit easily into an established genre; his was an idiosyncratic genius, fired by an extraordinarily responsive esthetic intelligence and an English prose style that has few, if any, rivals for its sweeping, evocative grandeur. It is of course easy to take exception to many of Ruskin's particular esthetic judgments. Hilton himself finds Ruskin's placement of
Tintoretto "at the top, top, top of
everything" evidence of his
"personal and partial" response. And most of us, I think, will take exception to his reaction to St. Peter's: "St. Peter's I expected to be disappointed in," the young Ruskin wrote in a letter. "I was disgusted." But Ruskin's real strength as a critic, a strength left undiminished by his often idiosyncratic enthusiasms and aversions, is the moral seriousness with which he regards art and architecture. Hilton is quite right in identifying this seriousness, together with a "professionalism" that "assumed an understanding of art far above that of its actual practitioners," as Ruskin's chief contribution to the practice of criticism.

While Ruskin was concerned with architecture throughout his life, the decade between 1846 and 1856 was

the period of his most intense concentration on architectural themes. At the center of that concern were The Seven Lamps of Architecture—written partly in an effort to salvage something of Italy's architectural heritage from the wrecker's ball-and The Stones of Venice. But these years were also the time of various lectures and pamphlets on architectural themes, as well as his collaboration on the construction of the Oxford Museum. As a critic, Ruskin was didactic in the best sense. He was among the first to view the critic's task as one of educating, influencing, correcting taste. The contemporary relevance of his exacting vision is perhaps nowhere more evident than in the second chapter of *The Seven Lamps of Architecture*, "The Lamp of Truth." Ruskin insists there upon honesty in architecture and inveighs against "a direct falsity of assertion respecting the nature of material, or the quantity of labor."
"No form nor material," he writes, "is to be deceptively represented." Ruskin had the heavily ornamented, historicizing architecture of mid-19th-century London uppermost in mind; but his words have an admonitory force that could be pondered with considerable profit by a good many contemporary architects.



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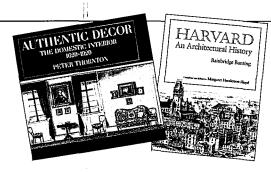
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Books



Authentic Decor: The Domestic Interior 1620-1920, by Peter Thornton. New York: Viking Penguin Inc., 1984, \$125.

How rare it is that a book reviewed in these pages can be urged on anybody, architect or layman, as warmly as one presses a favorite novel on friends. Authentic Decor is just such a rarity, a definitive scholarly resource that also presents an absorbing human chronicle. The abundance of vivid detail compiled by Peter Thornton, Keeper of the Department of Furniture and Woodwork at the Victoria and Albert Museum, communicates an almost novelistic fascination with the form and texture of European and American domestic life over three centuries. This immediacy depends in large part on the absence of reconstructed period rooms among the book's 534 illustrations; without exception, the drawings, paintings, prints, and photographs gathered here have been reproduced from sources contemporaneous with the interiors they show. Remarkably, despite the wealth of engaging minutiae in each vignette, and a text that meticulously explicates the significance of every valance, jardinière, and chamber pot, the larger thematic outlines of Thornton's historical analysis do not blur. His constant aim is tracking the "period eye," the shifting field of vision that delineates the look of an era and, "by some strange process, seems to affect pretty well everyone. This in effect means that people in circles that react to fashion, even when it is only to quite a limited extent, possess a common way of viewing rooms-

and, indeed, much else. Thornton penetrates beyond the fashionable ins and outs of particular motifs, colors, materials, and accouterments to stress the role of what he calls "density" in determining the basic esthetic of any moment in history. Density, he explains, "means that at some periods a larger number of objects can be tolerated en masse in a room than at others. It means that there are variations in how much pattern the eye can assimilate.... The change is more rapid than one might suppose ... and I expect it will eventually be possible to recognize the characteristics of a decade quite easily with practice." Unlike many scholars on the trail of the zeitgeist, Thornton displays common sense and a sharp eye for irony. (His thorough morphology of late 18thcentury furniture, for example, relays this footnoted aside: "In Paris people of a particularly amorous disposition sometimes had a plate of mirror-glass set into the domes of their beds, but this

practice was less eagerly adopted after Calonne, the Minister of Finance, was nearly cut in half when the glass fell [into] his bed.")

Thornton's study begins in 1620, when ideals of unified interior design which originated in Renaissance Italy were in the ascendant throughout Europe, and concludes around 1920, when new esthetic and social impulses challenged that continuous, essentially classical, tradition. Each of the book's six chapters examines a 50-year period in the light of trends in architecture and related arts, the functional and ceremonial development of interior planning, and a specific typology of the architectural shell and furnishings. Thornton is especially effective indicating the means by which an esthetic message is transmitted from centers of fashion, and the variations and anomalies that emerge as the vocabulary spreads to different social classes and regions. Numerous examples demonstrate the speed with which modes in interior decoration have always circulated among an international elite, yet Thornton also traces the phenomenon of the "false start," whereby a lag of even several decades could delay the general acceptance of a radical new style. Although he necessarily draws most of his evidence from the amply recorded dwellings of aristocrats, gentry, and influential artists, Thornton still offers enough glimpses of simpler folk at home to indicate the variable workings of style as a measure of social aspiration, shared values, and personal taste.

Many of the illustrations are startlingly fresh, since they come from sources as far-flung as Cracow, Bologna, and Stockholm, and from documents never published before. Alongside the work of such well-known figures as Boulle, Schinkel, and Tiffany, Thornton includes extracts from upholsterers' guides, fashion magazines, and amateur albums, as well as portraits, genre scenes, and conversation pieces. "Whenever the opportunity arose," he writes, "I chose the most charming picture available. I did so not merely for the pleasure such images give us today but because they also convey some of the delight that people of the time found in the style which was in favor at the time concerned. Such pictures help to remind us that styles we find unattractive were thought enchanting when new—by many people, at any rate." Even casual readers will succumb to the enchantment of dropping in vicariously on the domestic scenes preserved here; more serious students of design will want to visit often, and linger. D. B.

Harvard: An Architectural History, by Bainbridge Bunting; completed by Margaret Henderson Floyd. Cambridge: Harvard University Press, 1985, \$30.

Reviewed by Thomas Matthews

In the 350 years since its founding, Harvard has erected 232 buildings. The first, in 1632, was at the time the largest structure in the colonies, and the college's architectural intensity has never flagged. Harvard: An Architectural History catalogs those buildings and documents the forces that

shaped them. The dominant design tradition for American higher education derives from the University of Virginia, Thomas Jefferson's "academical village." The school is set apart from society, a planned autonomous community. Thus isolated, its architecture becomes introspective architecture becomes introspective, reflecting academic theory more often than external pressures. Jefferson's "houses" are less vernacular dwellings than textbook examples of the evolution of style. Harvard, in contrast, was founded as an integral part of its Puritan community. The students attended church in Cambridge and mowed Harvard hay in fields alongside their neighbors. School and town grew together, esssentially interdependent, yet competing for resources and often opposed in their goals. Consequently, Harvard's architecture has always been responsive to larger social forces; "master plans" succumbed to dissension or expedience. Nevertheless, Bainbridge Bunting discerns some "inner energy" that has guided growth toward a less

formal but more vivid unity. The vicissitudes of Harvard Yard exemplify the university's development. Built on Cambridge house lots sporadically acquired, it was first a wasteland of pigpens and privies. Gradually, through 150 years of intermittent growth, buildings achieved a certain harmony and dignity, ... not from a purist allegiance to a predetermined idiom but from a family resemblance attained through the use of brick, simple massing, and a restrained, familiar architectural

vocabulary."
The self-assertive 19th century, however, little valued this modest beginning. As a more liberal curriculum embraced new subjects, their buildings needed new forms, and narrow conformity seemed antithetical to the growing emphasis on individuality. The result was an "architectural inconsistency" characteristic of

Thomas Matthews is a freelance architectural writer from New York City.

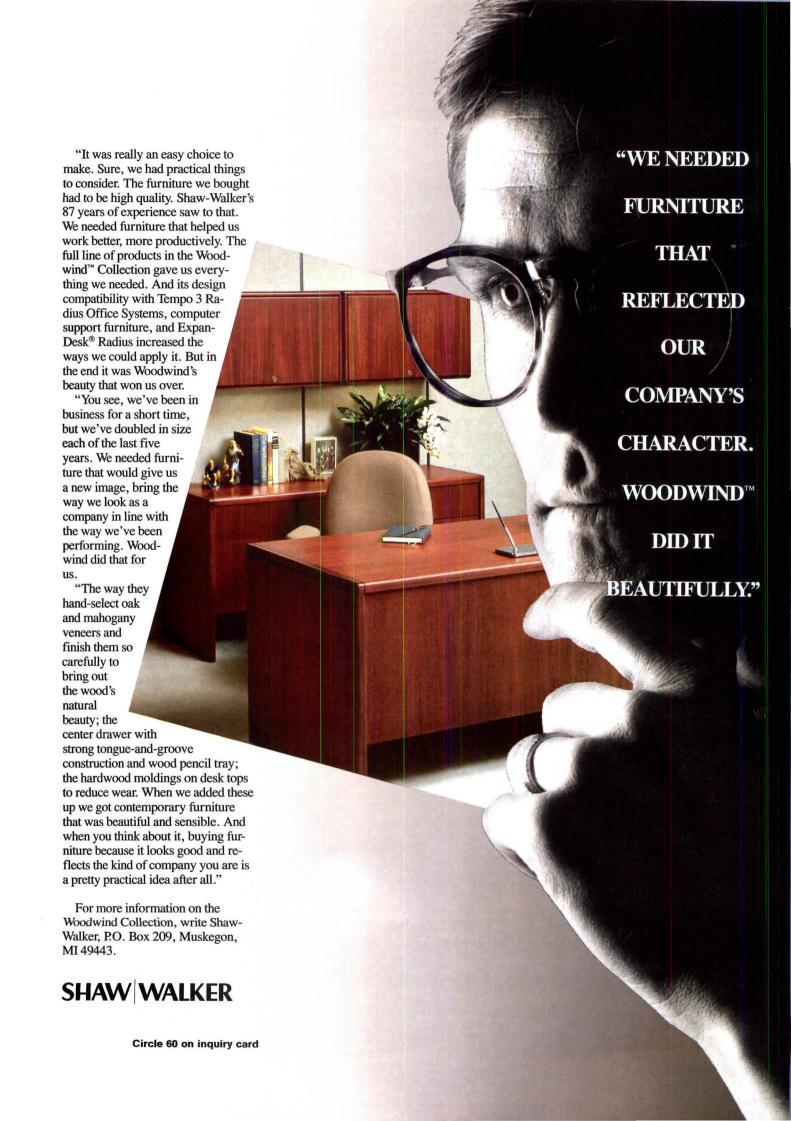
both the university and America itself. But with the inauguration of President Lowell in 1909, the college returned to its Georgian heritage. Working primarily with architect Charles A. Coolidge, Lowell erected more buildings than all previous administrations combined; "discretely placed," they "coalesced" the latent unity of Harvard Yard. "Unexpected pockets of order appear, each with a character of its own, yet all fit together to form a coherent pattern."

It is this lively, unpredictable order that Bunting admires most about Harvard, and its elucidation is the book's central strength. Much of the university's history of course occurred outside the Old Yard. Bunting examines the chaotic North Yard, contrasts the Beaux-Arts compositions of the business and medical schools, and praises the neo-Colonial River Houses along the Charles. The evolution of Radcliffe draws attention, and the Gropius era is discussed, though with little warmth. Bunting died before completing his work, and Margaret Henderson Floyd takes primary responsibility for the discussion of recent buildings, including the controversial Sackler Museum. (She praises its interior organization while lamenting the dissonance of its exterior brick.)

Given the inevitable difficulties of posthumous collaboration, Harvard: An Architectural *History* is admirably coherent and unified, marred only by occasional repetition and lapses in organization. Neither author is afraid to be critical, but they share a love of the university and its grounds that shines through their precise, lively descriptions. While the illustrations are pertinent and clear, they tend to focus on single buildings; more maps and longer views would clarify the web of relationships so often praised. The documentation, however, is extensive, and the quality of the

book itself impeccable.

Harvard's history emerges from complex and powerful forces. Great architects from Charles Bulfinch to Le Corbusier have discovered that its campus rejects narcissistic toursde-force, embracing instead buildings that defer to the whole. When the authors' analyses seem limited—slighting factors outside Harvard, neglecting its relation to other campuses, ignoring wider trends-perhaps that same deference is at work. The book's focus remains resolutely on the details, and in their steady accumulation Harvard's identity takes shape. It is a patient, thoughtful portrait of a singular institution, one worthy of the tradition it justly admires.



Rouse-ing up the waterfront

By Craig Whitaker

On March 11, 1985, The New York Times printed an article entitled "Pavilion Rising at Seaport Draws Opposition." The article went on to detail a dispute between various New York City civic and community groups on one side and The Rouse Company and its sponsor, the New York City Public Development Corporation, on the other over a new three-story, \$45-million pavilion then nearing completion on the East River in lower Manhattan. The pavilion houses some 120 stores and restaurants and is the largest component yet built in the now widely acclaimed and successful South Street Seaport development

At issue with this particular facility is the amount of open space around the building. As designed, the structure sits on a publicly funded pier extending out into the river. Thus, on three sides shoppers, diners, and promenaders at the perimeter have water views, some of which, including those of the Brooklyn Bridge, are spectacular. The civic and community groups claim the six-foot-wide outer edge is far too narrow and that they had been led to believe there would be more. The developers counter that there is considerably more open space—about 40 additional feetunder the upper two stories of the building, that the plans comply with guidelines developed by the New York City Planning Commission when concern about open space along the river first surfaced, and that, furthermore, the final drawings had been in the public realm and available for review for some time.

It would be comforting if at this juncture one could place blame where it belonged, rectify any errors made, and move on. Unfortunately, there are no good guys and bad guys in this small drama. The civic groups involved have a long tradition of standing up for the public good in a city where rapacious development schemes are rampant. The Rouse Company has a record of sensitive and publicspirited waterfront development projects. It needs to make no apologies, here or elsewhere. The New York City Planning Commission has labored mightily (often under the weight of its own regulations) to find ways of balancing public and private concerns in a city where nearly every project turns into a political brouhaha. Yet the results at the South Street Seaport are less than satisfactory, and the problem

Craig Whitaker is a practicing architect and planner in New York City. He was one of the authors of the Westway riverfront redevelopment proposal in Manhattan. promises to resurface with increasing frequency as redevelopment spreads across America's industrially obsolete inner-city waterfronts. The problem, I fear, is endemic to the approach.

A formula for waterfront redevelopment: Boston as a prototype

The present epoch began in Boston where, as almost every architect, developer, and politician now knows, the successful redevelopment of Scollay Square, particularly the rehabilitation of old Faneuil Hall and the Quincy Market, led quickly to the realization that other structures from America's industrial and preindustrial past were equally susceptible to rehabilitation, and that, moreover, some of the finest examples of the genre lay just several blocks away on Boston's waterfront.

For architects, these marvelous old granite and brick warehouses have become paradigms for waterfront redevelopment everywhere. Symbolic of America's self-reliant mercantile beginnings, the shapes and features of these warehouses permeate much of what has been built or rebuilt since, particularly the many commercial and residential projects at the water's edge.

The iconography is just as clear as McDonald's arches or the orange roofs at Howard Johnson's. Exposed brick and large amounts of glass combined with shed or gable roofs suggest a fusing of the best of modern and pre-modern sensibilities. Articulation of the plan and elevation with frequent dormers and changes in the roof line suggest that dozens of small merchants came together over time into one aggregated commercial venture rather than a single developer now seeking tenants. Granite pavers, wooden signs with

incised lettering, and small lights in the windows all suggest handcrafting rather than modern technology. Bollards and chains give a nautical feel on the water's edge, and on the inboard side these same devices announce the exclusion of the automobile. Modernity exists primarily on the inside with double-height spaces and interesting names for the restaurants and boutiques.

For developers and politicians, however, Boston's waterfront has come to symbolize something quite different. Its success meant that private parties were now willing to come forward and with a minimum of political pain turn municipal liabilities into assets. For the politician especially, this was a rather intoxicating prospect. Taxes

would be paid on land and buildings presently generating only rats and fires. People would return to the waterfront, ribbons would be cut pictures taken, and all of this would be accomplished with a minimum of public funds or political risk. Perhaps it was better anyway to rely on private initiative because in the decades following World War II, the public sector's planning track record has included such programs as slum clearance, urban renewal, and inner city highways—all with rather problematic results. Waterfront redevelopment in the 1970s and '80s was tailor-made for planners and government officials weary of the battle and increasingly unsure of whether public involvement in shaping the city was necessary or desirable.1

There was only one small Faustian fly in the ointment. From the beginning a marketing hook was necessary to get people back to an area that for generations had been dark, dirty, and dangerous. The promise of activities—of concerts and festivals and kiosks and balloons—as well as the promise of food, safety, and welllighted cleanliness were significant ingredients. As important as these, however, was the promise of relative exclusivity. People would not pay large sums of money for condominiums in a risky new part of town if water views so prominently displayed in the brochures were later to be blocked off by other buildings. Who would order crab's legs and clam chowder if they could not see the water? Therefore, in order to create a market, the developer often needed to control (architecturally and financially) some of the public domain, and in order to keep the developer interested, the politician needed to give up some of that same domain (not literally, of course, but longterm leases and appropriate architectural treatment can create the same effect).

Perhaps it is more tragic than Faustian, but at the very moment when economic forces are finally reopening large stretches of the American waterfront, the very urge to seize this opportunity may be the same force that seals much of it back up. Along the lakefront in Toronto, for example, housing is edging right up to the water. At Union Wharf and the Charlestown Navy Yard in Boston, and in a number of smaller cities, the same relationship of buildings to water prevails. New York City at this moment is a veritable froth of potential waterfront activity on both sides of the Hudson and East rivers. It is only a matter of time before weaker or less vigilant hands reduce six feet of public walkway

to zero.

The central question, then, remains: are there other precedents or other urban design models that might allow redevelopment while leaving the public's rights to the water intact, or is it really an either/or proposition with only the hope that on a case-by-case basis there can be an equitable resolution of profit and public access? Three magnificent examples built in this century suggest strongly it can be a both/and rather than either/or proposition.

Learning from Rio, Chicago, and San Antonio

Rio de Janeiro is the most striking example of the delineation between public and private domains. The large avenidas between beaches and the city at both the Copacabana and Ipanema clearly mark whose turf is whose. Just as Central Park derives so much of its actual and photographic value from the tension between it and the speculative commercial city crowding up around its edges, the same is true in Rio. Some of the most expensive real estate in South America sits on the inboard side of Avenida Atlantica and Vieira Souto. Hotels, luxury apartments, and cafés all line up along the beaches rather than in them. The poor go to the beach, the rich go to the beach; one can have quiche and white wine,

beer and pizza, or neither.

Daniel Burnham's plan for
Chicago, and its later manifestation
along Lake Michigan, is a more
anglicized and verdant version of
the same concept. The Navy Pier,
the Art Institute, and the boat
basins are only counterpoints to the
perception held by all Chicagoans
that first there is a city, then park,
then water. I was once told that
kindergarten-age children in
Chicago, when asked to draw their
city, often start confidently with a
green line down the middle of

the page.

The best example in North America, however, is probably the Paseo del Rio in San Ântonio. Conceptually similar to both Chicago and Rio de Janeiro, but at an entirely different scale, the project wriggles its way like some tiny green Nile between buildings and under streets on both sides of the San Antonio River. The plan was first put forward in 1929 by Robert H. H. Hugman, a San Antonio architect whose brilliant work went largely uncredited for many years.² One realizes almost immediately after descending the stairs that Hugman has blazed a trail. Regardless of how many opportunities present themselves for nachos and slush margaritas to get between us and the river, Hugman allows us to pass. As one architect looking at another's work,



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Rio de Janeiro's beaches (top), Chicago's lakefront parks (middle), and San Antonio's Paseo del Rio (bottom) exemplify urban waterfront redevelopment that reconciles public access and commercial interests.

what leaps out to me immediately along the Paseo del Rio is Hugman's impassioned fidelity to the idea that the river and its edges are public. Building foundations are muscled out of the way if they intrude on that right. When roadway bridge piers block access, they are simply bypassed by Hugman's catwalks built out into the river around them. The only real disappointments in the Paseo del Rio are at the ends, where one realizes there is no more, that Hugman has finally stopped looking out for our interests.

The problem of politics

If public access along the waterfront is a laudable goal, then two very real impediments soon emerge. Overlapping jurisdictions, competing bureaucracies, different funding sources, and a forest of often contradictory environmental regulations make any such endeavor very difficult. By way of contrast it is mind-boggling to recall that at one of the first meetings of the Regional Plan Association in New York, Lewis Mumford and Clarence Stein decided it would be a good idea to promote the plan for an Appalachian Trail.³

It is also hard to locate clients. Hugman spent seven years flogging his plan for San Antonio before he finally found people willing to stand behind the idea and promote it. For some of these years business leaders in San Antonio were convinced the best proposal for that stretch of the river was to pave it over and turn it into a culvert. Burnham, a man of means, developed and tinkered with his plans for Chicago at considerable personal expense during much of his professional life.4 Throughout this period he showed it to dozens of groups to build support. When the plan was finally accepted in 1909, he stepped aside and did not participate in its execution in order to eliminate any suggestion that his promotion of the concept had been self-serving. Finding a client is not any easier today.

The question of scale

But perhaps the largest impediment for architects is the conceptual baggage many of us bring to the problem. Urban design has become for the most part a "middle scale" discipline. It is the scale of bubble diagrams and concept drawings at one inch equals 40 feet—the scale most suited to those few highdensity downtown blocks where two percent of the area absorbs 98 percent of our thinking and theorizing. It thus becomes difficult to recognize the opportunity, let alone think through and design long stretches of waterfront, when the only current conceptual references

are those schemes for "piazzafying" the waterfront one chunk at a time.

Rio de Janeiro, Chicago, and San Antonio, or for that matter, the tow paths along the Potomac, Riverside Park in New York, and the boardwalk in Atlantic City, exist almost entirely at the large and small scales with the middle scale either suppressed or absorbed within the whole. In Rio de Janeiro there is nothing to snag the eye between the gently curving and instantly comprehensible sweep of the avenidas stretching into the distance and the details of the light fixtures and paving patterns in the sidewalk-from one inch equals 100 feet right down to 1 1/2 inches equals one foot with nothing in between. Robert Venturi was right when he said nobody would propose Central Park today because the idea of some plan for a huge dumb green rectangle hanging on a conference room wall would seem so simpleminded as to be risible. Bring on the urban designer to break up that rectangle and humanize it.

In San Antonio even the large scale exists only as a compact between Hugman and the user that access will not be interdicted. The tight turns and sunken section make the Paseo del Rio a sequence of discrete, episodic experiences with an interesting bridge here, followed by some exotic vegetation over there. The only middle scale event at all in this sequence is one medium-sized amphitheater built into the bank on one of the river's inside turns. It is also the most boring stretch of the journey.

On many projects, particularly those involving dams, dikes, piles, decks, landfill, and seawalls, the large and small scale must be considered simultaneously rather than sequentially. Because engineering work at the water's edge may often precede the programming, design, and construction behind it, sometimes by a period of several years, and to the extent that detailed design of the edge may inform the engineering rather than the obverse, one may need to know how wide the esplanade is before one has figured out how many people will use it or where it will lead.

This in turn suggests that specific uses and programs in a conventional sense are far less relevant to the final form of a given stretch of waterfront than are other considerations. Programs change. The roller coasters and saltwater taffy in Atlantic City are giving way to gambling casinos. A decade from now, today's chic boutiques and grog shops may seem hopelessly passé. Burnham was wrong in his prognosis of what would later occur on the other side







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of Michigan Avenue. He vacillated for years on what uses were most appropriate along the lake and in the end was criticized, unfairly I believe, for his erroneous estimation of the shape and character of the city that would grow up behind his park.5 But in the final analysis, his miscalculations mattered not one whit to the success and validity of his proposal. The park is big and grand because the lake is big and broad. The Paseo del Rio is close and intimate because the river is small and the section is tight. Beyond an initial idea, form follows form not function.

Frederick Law Olmsted could only have imagined the current postcard views of Manhattan's skyscrapers pressed up against Central Park. Tourists flock to Savannah to see its antebellum graciousness, but that graciousness originated 130 years earlier when Savannah was first platted by James Oglethorpe, who could not have had a clue to the plan's later manifestation. For the fledging urban designer this suggests that a working knowledge of civil engineering, of street design usable block and lot sizes, and a knowledge of generic building types are more important than a working familiarity with real-estate finance and zoning.

For the politician there is a different lesson and perhaps the possibility of a greater freedom. Few cities are big enough to absorb more than one South Street Seaport, and there is a lot of America's waterfront still left to think about. As it now stands, the announcement from city hall that a given stretch of waterfront will be returned to the people is usually followed by the obligatory tour by the mayor and other civic leaders of Boston's warehouses, Baltimore's Inner Harbor, and Tivoli Gardens if the budget allows. This is then followed by an assessment of available sites and a screening of potential developers. Thus slowly but inexorably begins the process of linking the success of a particular administration to the projects selected and the developers promoting them. Interest rates,

Notes

1. See Douglas M. Wrenn, Urban Development (Washington, D. C.: The Urban Land Institute, 1983), pp. 29-30.

2. Two early accounts are Louise Lomax, San Antonio River and Valley, Texas (San Antonio: Naylor Co., 1948), and the Report of the United States Works Progress Administration, Texas (1941).

3. The plan was originated by Benton Mackaye. See Louis Mumford, Sketches from Life: The Autobiography of Louis Mumford, The Early Years (New York: Dial Press, 1983), pp. 340-43.

4. Thomas S. Hines, Burnham of Chicago (New York: Oxford University Press, 1974), pp. 312-45.

5. Ibid., pp. 334-35.

6. Aline Saarinen, ed., Eero Saarinen on His Work (New Haven: Yale University Press, 1962), p. 11.

marketability, and the overall financial health of the developer become matters of grave political

Alternatively, planning and legally mapping access to the waterfront require no specific development commitments. Whether the impetus for this comes from the Hugmans and Burnhams of the world, from good government groups, or from the mayor's office itself makes little difference. What matters is that streets, setback lines, and public rights-of-way are the tools for channeling and modulating development into a civic whole greater than the sum of its private speculations. That much has been

understood about cities since the Renaissance

Perhaps, then, today's timidity simply to wade in and start drawing lines despite the enormity of the opportunity stems from some lingering early Modernist sensibility about total design. Eliel Saarinen's dictum was that one could not design the ashtray without knowing how big the coffee table was, and could not design the coffee table without having some ideas about the size of the room.6

In a better world everything fits together; therefore, plats and maps are a hollow exercise unless matched and melded with an actual Rousian proposal. So the next step. really, is discovering once more that

planning before building (or rebuilding) is good policy and good politics, too. Maps, hearings, beautiful renderings, impassioned debate over the public trust, and politicians on the six o'clock news pointing to a better waterfrontnone of these requires specific development proposals. If there are actual proposals waiting in the wings so much the better. The mayor gets credit twice. If not, then Rio de Janeiro, Chicago, and San Antonio show that if the public goes first, Rouse will follow. He is, after all, a very smart man.

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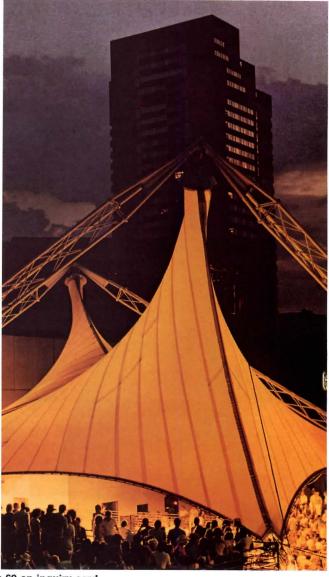
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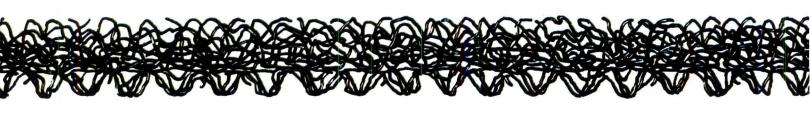
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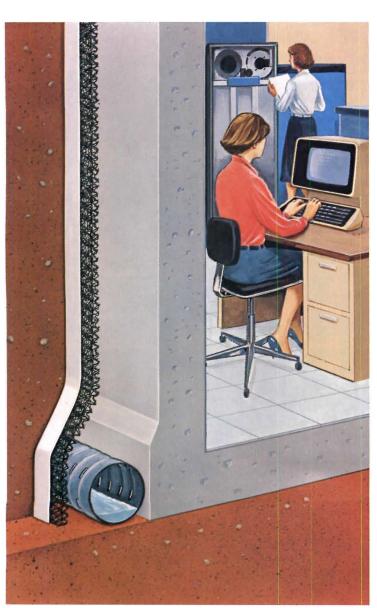
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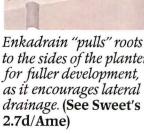
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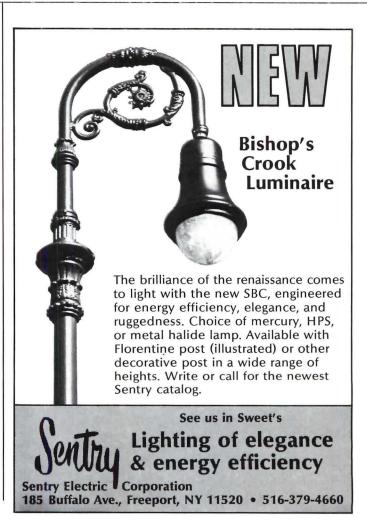


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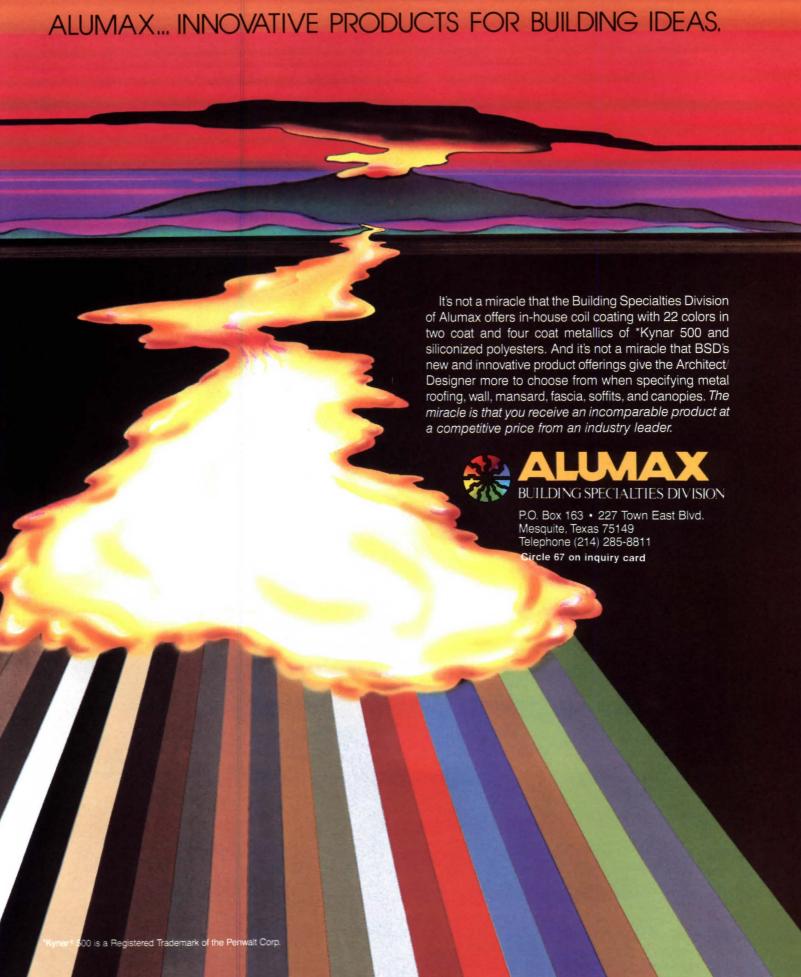
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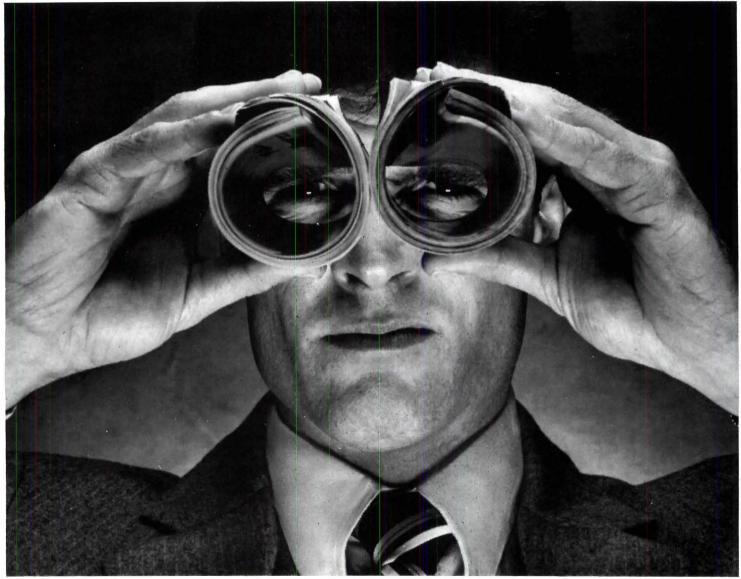


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PreFixx-protected wallcoverings were subjected to staining agents identified in a research survey of healthcare design professionals. In independent laboratory tests conducted by U.S. Testing, no trace of stains was visible after 7 days of continuous testing with over 85% of all selected staining agents, including Betadine, iodine, inks, medicated creams and enamel spray paint.

Conclusion: Testing with harsh stain-producing industrial and hospital products proves PreFixx is virtually resistant to most stains.

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Conclusion: PreFixx cleanability is 100% effective without endangering beauty or texture, color and overall appearance.

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PreFixx installations were rigidly tested over a period of a year at test sites in major hospitals throughout the United States. In each case, easy cleanability and durability proved again that PreFixx is preeminent in all these particulars.

THE PREFIXX ADVANTAGE

Only PreFixx-protected vinyl wallcoverings offer the assurance of long-term stain-resistant protection *plus* the versatility of unlimited styling and design flexibility.

*When using any solvent-based products, follow precautionary instructions for use.

STYLING VERSATILITY

PreFixx protects invisibly. Embossing detail remains crisply defined without the severe loss of texture typical of PVF film laminates.

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PreFixx-75%

Acrylic-46%

PVF--359

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PreFixx-85%

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PVF-92

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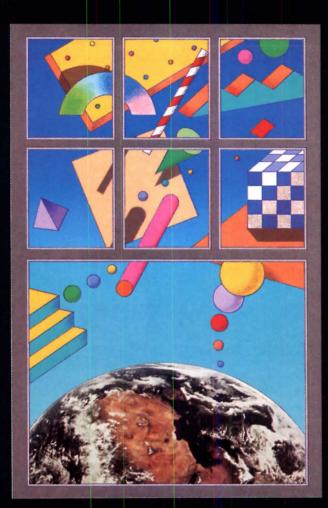
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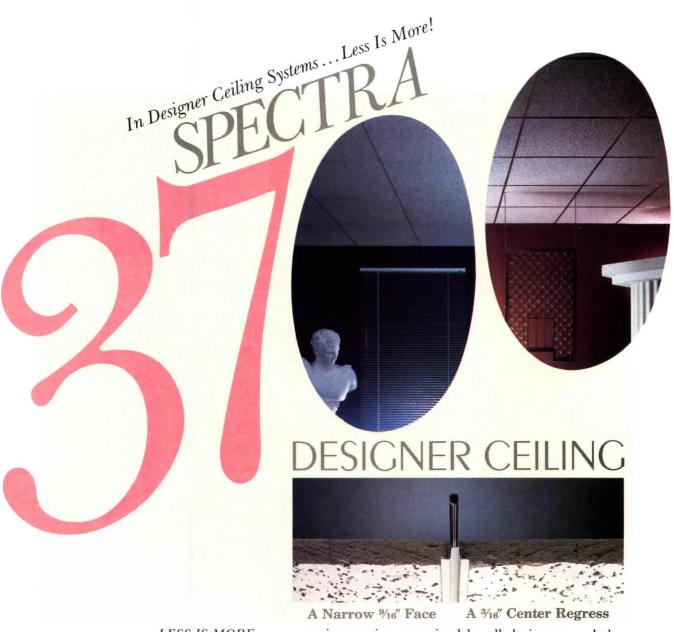


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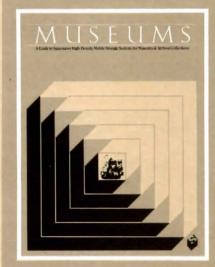
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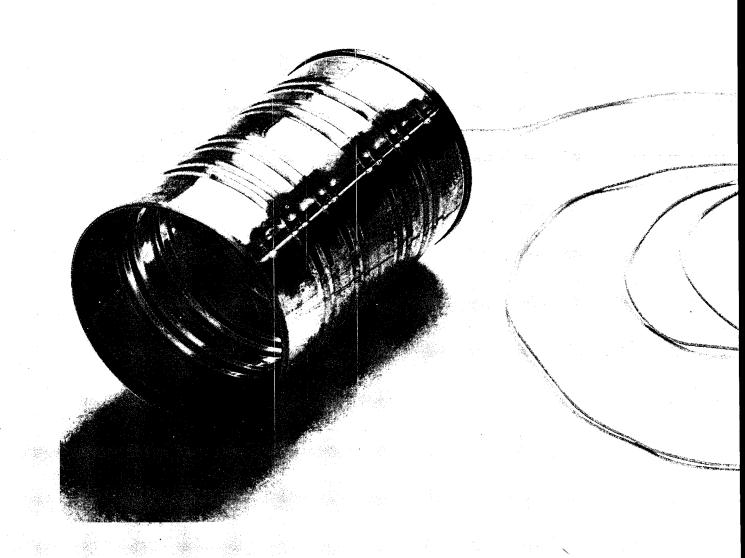


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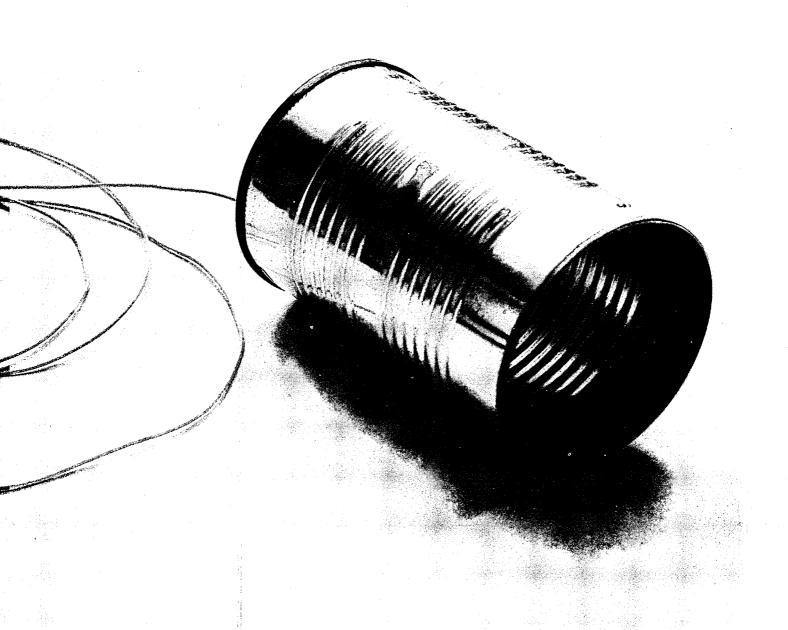
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Taking it to the streets

During the late '70s, contract furniture manufacturers learned that one way to gain a competitive edge over their neighbors in the Merchandise Mart and the Pacific Design Center was to invite a cutting-edge architect over for NEOCON or WestWeek. The trickle, then flood of "designer showrooms" that followed swept unknown companies into instant prominence, carried taken-for-granted product lines onto center stage, and, thanks to an especially attentive professional press, sent trade show attendance figures surging upstream. If there were times when these highstyle displays succeeded in nothing so much as upstaging the displayed, the basic premise underlying the trend was nonetheless sound: if your market is the design community, your marketing should be design-conscious.

Owing to the speed at which trends now travel, and to the popular press's newfound fascination with architects and architecture, it was perhaps inevitable that high-design showrooms would sooner or later escape the narrow confines of the trade mart and hit the streets. For, though the rules are different in retail, the designsensitive public is no less susceptible to architecture's seductive allure. Especially when it is inserted into the all too familiar "shout-if-you-want-to-be-heard" commercial glitz that lines Madison Avenue in Manhattan, the "Miracle Mile" in Coral Gables, and Sutter Street in San Francisco, where Steven Holl, Arquitectonica, and Mark Mack have introduced welcome alternatives to the genre. Not surprisingly, the clients for all three boutique-scale shops presented here cater to the urbane tastes of the carriage trade—a group that prides itself in keeping up to the stylistic minute. Catching the discerning eye of these ever-vigilant consumers (who can tell you precisely when Minimalism went out and the New Romance came in) is no easy task, however; especially if your stock in trade is a relatively unknown commodity making its debut in the marketplace. The architect must devise a facade that proclaims, but does not scream, a commercial message; he must then create an esthetically supportive, but not overwhelming, interior atmosphere to reassure the sometimes hesitant customer. Consider Steven Holl's glass-enclosure for The Pace Collection (below), for example. Every day, the sales staff charged with taking clients through the company's luxe line of business and residential furniture arrives early to cover the lockset with masking tape. With 1,000 or more people stopping by each week, they're too busy to answer the relentless doorbell. Charles K. Gandee



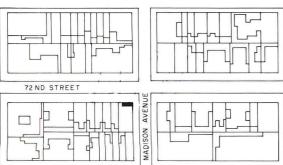
The Pace Collection New York City Steven Holl, Architect

Pace maker

© Paul Warchol photos







"You're writing about History," warned Leon Rosen, in an ominous tone of voice. If the interviewer suppressed the obvious retort, "I'll be the judge of that," it was because The Pace Collection's president did have a point. The primary display area in his company's ninth show room may only tip the scales at a featherweight 364 square feet, but within the furniture industry and the architectural community, those are 364 very important square feet. Not only do they effectively challenge the established custom of companies placing their product lines safely out of the public eye in "to the trade only" design centers, but they were crafted by architect Steven Holl.

Whether the Pace "experiment" will ultimately succeed, and Rosen's colleagues (duly noting their competitor's success) will follow his lead, is an open question; however, it is timely to consider architect Holl's contribution to the cause. For, despite a modest portfolio of built work, Holl has struck a responsive chord in an entire generation of young architects and students, who find in him a welcome calm amid the anything-goes blizzard that is the contemporary architectural climate. (He also received, not incidentally, the imprimatur of Michael Graves, who, when asked by Vanity Fair magazine to name "one architect under 40 worth watching," tapped Holl.) The enthusiasm is generated by the alluring niche Holl has carved out for himself. His work is sufficiently abstract to appeal to Modernists, but not so detached from history as to alienate Postmodernists, and his near fanatic preoccupation with materials and construction endears him to purists of every stripe. Defying all ready stylistic categories, Holl's architecture manages to be both rational and emotional, disciplined and idiosyncratic, taut and sensuous. His method? "I prefer to have the architecture somehow be born from conditions on the site. . . which is not a 'contextual' argument, but it's also not taking a single architectural vocabulary that you've developed and then transporting it from one place to another."

The predominant "condition" Holl found on the corner of Madison Avenue and 72nd Street in Manhattan was the dynamism of the city grid. Standing diagonally across the intersection, the architect was intrigued with the "hyperactive view of alternating forces of movement"—the red light/green light, stop/go rush of cars and pedestrians—which suggested the theme of counterpoint. After first righting the urban wrong he saw in the chamfered corner of Pace's site by adding a six-foot triangular wedge (photo left), Holl set out to develop his chosen theme. Given the size of the space (minute), and the scale of the objects to be contained within it (not so minute), wrapping the show room in glass was only common sense: no simple plate-glass window-walls these, however. Though Piet Mondrian might have served as co-designer, Holl insists De Stijl was not a point of departure for the counterpoint of dominant horizontal mullions of the 72nd Street facade (photo facing page), which are pitted against the dominant vertical mullions of the Madison Avenue facade (photo previous page). Looking through, one does have a sense of the kinetic activity Holl aspired to (photo above left). And while the intended tension between the lines sandblasted into amber panels on Madison and the extruded planes sandblasted into similar panels on 72nd may be too subtle for many, the lively rhythm of opaque vs. transparent, line vs. line, is not. After suspending a curvilinear yellow canopy over the front door, Holl extended his contrapuntal motif to the tiny interior, where a spidery steel web that serves as a mezzanine guard-rail "fuses curves against horizontal bars" (page 101), where a "free arrangement" of rectangular voids in the ceiling is set against a flat horizontal plane, and, most dramatic of all, where "steel shelves [holding exquisitely-crafted furniture maquettes] carry out the counterpoint of planes set perpendicular to the wall."

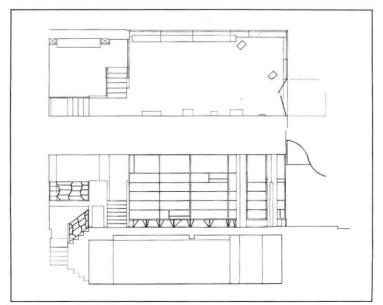
As the rectilinear black dot in the site plan at left reveals, Pace is a minor event. Minor events, however, add up. Perhaps not to "History," but then again... C.K.G.











True, The Pace Collection generally displays more than a table, a lounge chair, and a loveseat in its new show room (photo left), but it doesn't display all that much more: the diminutive 26- by 14-foot space won't allow it. Additional selections from the company's product line can be found up in the staff's 10- by 12-foot mezzanine office (photo facing page and below left), down in a subterranean annex (section bottom), or, in model form, "floating" on steel shelves projected from the show room's south wall. Pace president Leon Rosen is clearly content to offer us an appetizer, not his full menu. (The complete meal is served in Pace's 10,000-square-foot flagship show room 15 blocks away.) Architect Steven Holl's job, of course, was to make that taste of Pace as tantalizing as possible. Which he did. Holl has succeeded where so many others have failed, in achieving that delicate and elusive balance in show room design between too much architecture (wherein the furniture is overwhelmed) and not enough (wherein the furniture is unflatteringly warehoused). At Pace, container and contained have made their peace. Perhaps one can attribute the equilibrium to Holl's near-rabid aversion to any single or simple "style"; to his preference for devising rationally ordered but basically abstract solutions to architectural problems; and to his preoccupation with materials and craftsmanship. The result is like an exquisite pedestal in a gallery, which visually supports the object it physically supports. Though some have questioned the relationship between Holl's conspicuous aversion to opulence and Pace's unabashed commitment to same, president Rosen believes that the more fundamental issue is that both are committed to "quality."

"When you're trying to develop something with a certain level of detail, you have to stay on the site. How else can you do it?" Holl asks rhetorically. He estimates that while Pace was under construction, he spent one out of every two days on the corner of 72nd Street and Madison Avenue. Though Holl confesses that such time-consuming attention is "not 'cost-effective,' "it has its rewards. The architect was on hand when it turned out that Pace's front door was going to collide unceremoniously with a structural column, giving him the chance to turn adversity into virtue by having workmen carve a neat niche out of the column (photo right). Similarly, when the plaster dried, and the cobalt blue pigment used to create the desired hue of celadon congealed on the surface in tiny specs, Holl was on hand to calm his alarmed client and persuade him that he was really seeing "an unprecedented breakthrough" (photo top left, facing page). And when costs were getting out of hand, Holl was ready to shave \$30,000 off the budget by leaving existing radiators in place, but protecting them with a wire-legged steel shelf that extends the plane of the granite window sill by a precious 21 inches, and creates additional display area for chairs (photo top right, facing page). But perhaps the most rewarding benefit of working in situ, was Holl's exposure to the artisans and craftsmen—the glassworker who sandblasted and etched the amber panels (photo right and facing page), the plasterer responsible for the shifting fresco in the stairwell (photo facing page), the steelworker who patiently balanced the window mullions' structural stability with thinness-those unsung heroes of architecture, according to Holl, responsible for transforming vision into material reality. He concludes, "There are certain projects that have a lot of love in them."

The Pace Collection New York City

Owner:

Leon Rosen

Architect:

Steven Holl, Architect—Peter Shinoda, project architect; Peter Lynch, Paolo Iacucci, assistants

Engineers:

Paul Gossen (structural); John Lui

(mechanical)
Consultants:

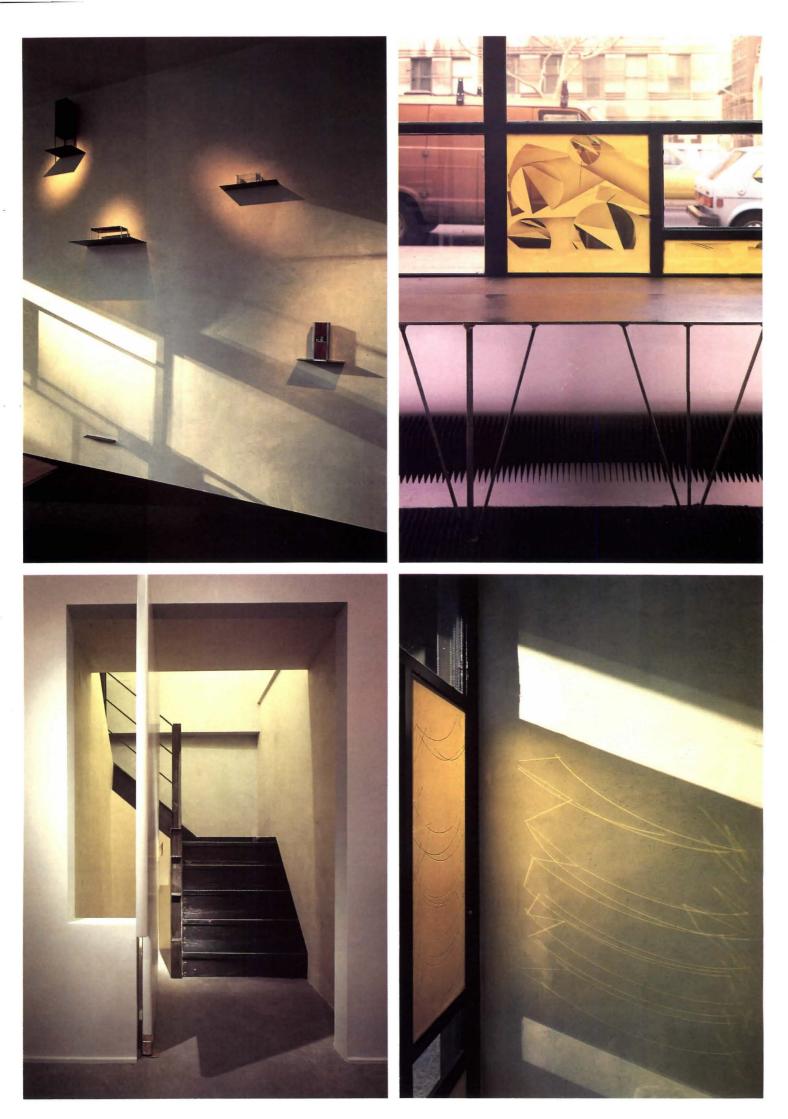
Peter Barnum (lighting); Halton Hall (plasterwork); Alvin Cooke Metal Works (brasswork); Richelmo Bottino (furniture models); Jorge Rodriguez (sandblasted glass); A & S Windows (storefront)

General contractor:

C. Clark Construction Corporation—Frank D'Amico, job supervisor

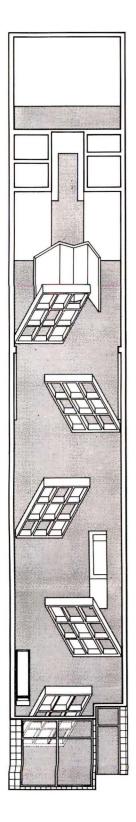






Arquitectonica for sale

ARQ Products Coral Gables, Florida Arquitectonica International, Architects



Late one afternoon last fall, a panel truck pulled up in front of the pink canvas awning at 142 Giralda Avenue in Coral Gables, and a crew of moving men hurriedly descended on the recently opened ARQ store; before the hour was up, the men, the truck, and half the shop's inventory of furniture had sped away into the South Florida sunset. Though passers-by might have suspected a heist, the store's owners, Laurinda Spear and Bernardo Fort-Brescia, were delighted. True, they hadn't made a sale, but the upcoming episode of Miami Vice for which the furniture was being borrowed guaranteed the kind of exposure that neophyte shopkeepers long for—especially if their stock in trade is as flamboyantly unorthodox as ARQ's, and the television series in question is as seductively influential (in terms of transmitting "taste") as Miami Vice. Not that Fort-Brescia and Spear need a vote of esthetic confidence from NBC's prime-time hit to feel optimistic about their first foray into retailing. The founding principals of Arquitectonica International, the firm responsible for putting Miami on the contemporary architectural map, have spawned an enthusiastic local following of "hard-core Arquitectonica groupies," according to Fort-Brescia, "who maybe can't afford to buy an apartment in one of our buildings, but can afford to buy one of our plates."

Capitalizing on their local celebrity, however, was not the sole impetus for opening ARQ, clarifies Spear. The store was born out of the partners' recent pursuit of interior design work (both as independent commissions and as part of larger building commissions), and their growing frustration with available product lines and slow delivery times. After custom-designing furniture, fabrics, and wallpaper for a bank in Lima, a law office in Miami, and a house in Chicago, Spear and Fort-Brescia—who admit to being "horribly impulsive people"—decided to go public with their quickly expanding portfolio of products; to open a store that would be a showcase for the firm's wares, as well as for the wares of other "avant-garde" architects, designers, and artisans, who merit the Arquitectonica seal of stylistic approval. With their characteristic mixture of naïveté and bravado, the entrepreneurial husband-and-wife team acquired a 1,600-square-foot slot of space between a stationery store and a Scientology outpost just off what passes for a pedestrian thoroughfare in Miami. Undeterred by the space's bowling-alley proportions, and limiting their renovation budget to a meager \$20,000, the partners devised a sprightly pattern for the walls, and a series of movable partitions cum display cases for spatial control and flexibility (photos facing page). The irregular—sometimes solid, sometimes void-parallelograms zigging and zagging their way through the store stand perpendicular to the walls, which not only creates the requisite "model rooms" for furniture arrangements against a backdrop of small-scale objects, but creates an oblique circulation path (axonometric left). If customers must weave tortuously through ARQ, the benefit is that the extraordinarily rich contents can be more easily digested in vignette-size bites. Though the plan is as quirky as adroit, and though the sponged walls are not without their winsome charm, ARQ's vitality stems not so much from its interior design as from its brazenly eclectic merchandise. Which, despite what Spear and Fort-Brescia claim about "not knowing the first thing about retailing," is the cardinal rule. Beginner's luck? Maybe. C.K.G.







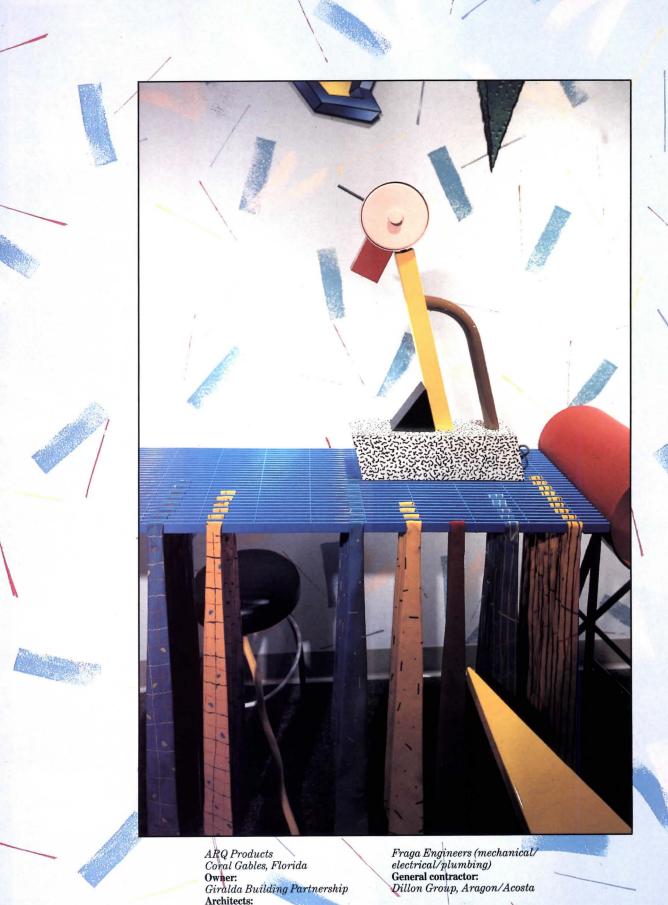




"Miami is not a stodgy city," reports Bernardo Fort-Brescia, by way of explaining ARQ Products' conspicuous commitment to the cutting edge of contemporary design. At present, the radical chic offerings of Memphis constitute the store's primary bill-of-fare (photos above and previous page), but the shop also serves as a gallery for lesser-known artisans and craftspeople whose rugs, clocks, jewelry, and housewares

are the subjects of invitation-only, monthly fetes. Arquitectonica is currently planning to launch its own extensive furniture and fabric collection this summer, along with a women's clothing line designed by partner Spear, which will complement her and sister Alison's necktie collection (photo facing page): "I hate to shop," confesses Spear; "so at least this way I can get a summer wardrobe."

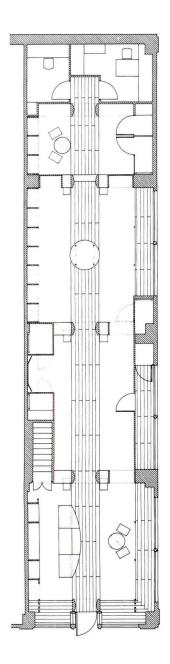
A CHARLES



AND MARKET

ARQ Products
Coral Gables, Florida
Owner:
Giralda Building Partnership
Architects:
Arquitectonica International
Corporation—Bernardo FortBrescia and Laurinda Spear,
principals and project designers;
Carl H. Young III, project manager
Engineers:

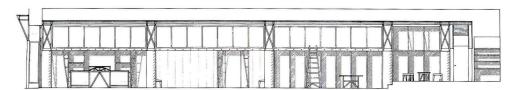
Engineers: Martin Cagley & Riva (structural);



Though long johns, Levi's, and a fiber-filled parka will do the trick, habitués of St. Moritz and Sun Valley tend to frown on such proletarian garb. Preferred is an haute couture ensemble from the venerable Munich-based ski and sportswear emporium Bogner, where suiting up for the slopes will set you back... oh, say an even \$1,000 for a Barbarellastyle jumpsuit, or double that amount for a hand-painted graffiti-print model purportedly "inspired" by New York City break-dancers. Marketing Bogner's exotically designed (and priced) ski and après wear, of course, is not a job for "Al's Sporting Goods" down on the corner of Main and Maple. It requires the proper ambiance, tailored to its clientele. Considering the company's unabashed elitism and de rigueur bill of fare, San Francisco architect Mark Mack was not the obvious choice to serve as esthetic director for Bogner's West Coast debut. The Austrian emigrant may speak the same language as his client, but when it comes to questions of style (not so much personal as professional), Mack is conspicuously more hair-shirt than silk. The almost ascetic austerity that has characterized much of the 37-year-old architect's work to date, however, is conspicuously absent here at the high-rent intersection of Sutter and Stockton streets (photo below). Only a few lonely concrete blocks vestigially recall Mack's earlier investigations into "Primitivism," which, at their most radical, were decidedly more polemical than hospitable. (His concrete block furniture was especially hard to take.) But Mack's commitment to an architecture simple in plan and straightforward in form, to the "honest" expression of structure and construction, and to the inherent "integrity" of "real" materials, has not been abandoned for his fast-lane client. Laugier's "Primitive Hut" is still the archetype, but Mack has admittedly dressed it up a bit for town. "The whole point is to sell something," wisely acknowledges the architect, who, toward that end, was amenable to adding "a little pizzazz" to his repertoire. The client's \$350,000 budget assisted with a more luxurious material palette than the concrete block and corrugated metal that are Mack's mainstays; but the obvious rigor with which he assembled the bronze, travertine, granite, and teak components of his facade snares it from the jaws of commercial glitz. Taut order also distinguishes the store's plan. Mack neatly bisected the 1,800-square-foot space with a barrel-vaulted "street" lined with clearly delineated display bays (plan left), which he then outfitted with ash cabinetry. The sunshine-vellow stain specified for highlighting the store's "structural" elements and Tinkertoy-like complement of furniture and fixtures adds a touch of uncharacteristic insouciance to the interior, while reminding us that though Mack may have taken Primitivism to town, he hasn't become just another city slicker. C.K.G.













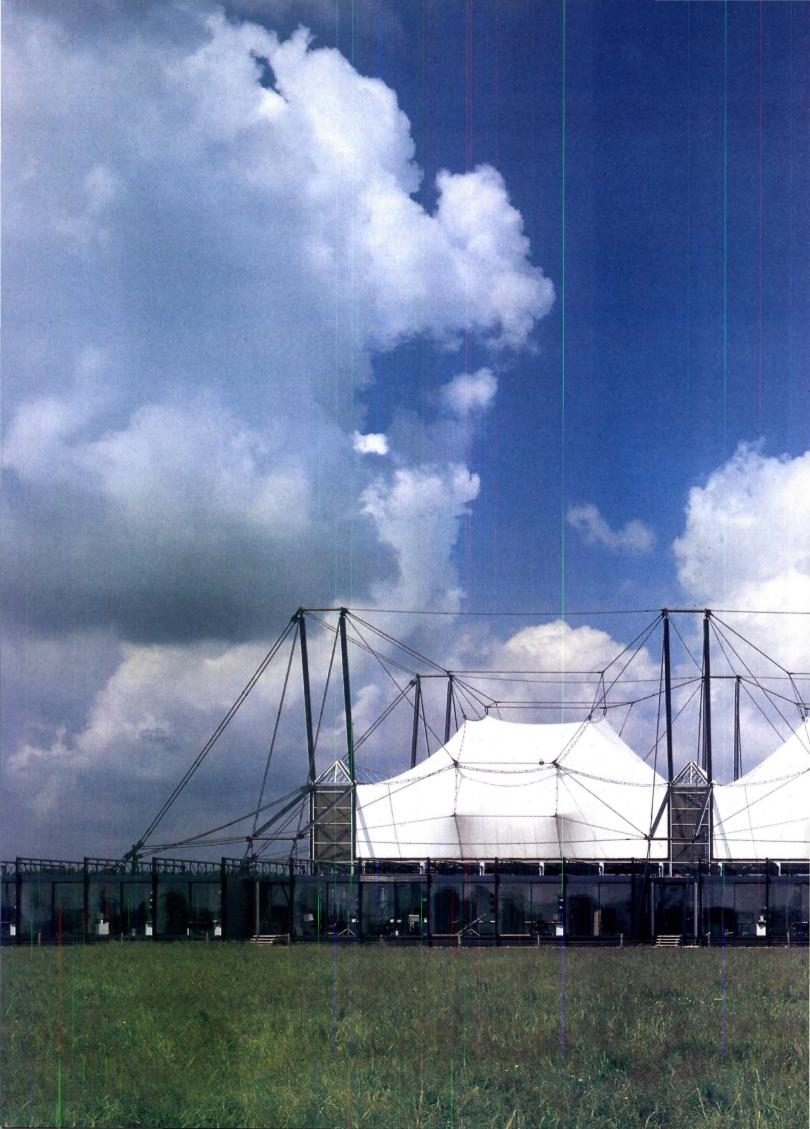


Though the dimensions of Bogner's San Francisco outpost are a tunnel-like 20- by 90-feet, the shop boasts 12foot ceilings which architect Mack exploited by vertically dividing the store into two discrete zones: upperlevel cabinets are for storage and "lifestyle" advertisements; lower-level casework is for display (section top and photo facing page). The barrel-vaulted circulation "arcade" assists in the roof-raising cause (photo above right), and its five pairs of slightly too-cute bowed trusses not only supply support for the oak canopy but help modulate the canopy but help modulate the lengthy spine (photo facing page). The trusses are situated precisely above cross-axial display cases (photo top right) that create boutiques within the boutique. The store's no-assembly-required-style fixtures and furniture (photo above) are both visual and functional delights visual and functional delights.

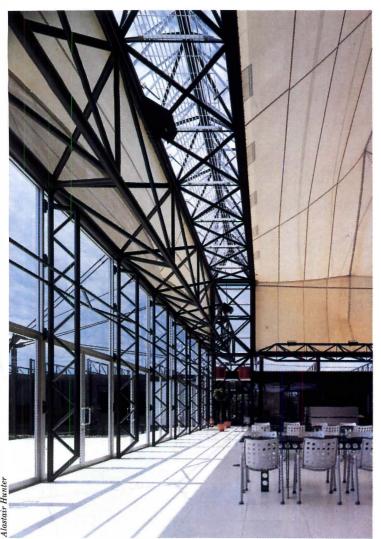
BognerSan Francisco, California Owner: $Bogner\ of\ America$ **Architects:** MACK, Architects—Mark Mack, design; Susan Scovell, project architect; Shaun R. Weston, technical assistant; Russell N. Thomson, presentation drawings Engineer: SJEngineers (mechanical)

Consultant: Durney Brothers (cabinetry and furniture) General contractor: Ryan Associates









Schlumberger is entered through its winter garden, a vantage point from which the layout of the entire complex is easily understood (top left photo and plan). Housing the library and cafeteria, it is separated from the noisy test station by a braced wall of laminated, acoustically sealed glass (bottom left photo). Its uninsulated space is heated by fan convectors, radiated warmth from the adjacent labs and offices, and sunlight from the roof. All the interiors are illuminated primarily by daylight, filtered through the membrane, glazed girders, trusses and window walls of the central spaces, and glass doors of the research offices (photo facing page). Translucent by day, the self-cleaning, non-yellowing, and fire-resistant Teflon-coated fabric of the membrane becomes luminous by night (photo facing page).

Schlumberger Cambridge Research Center Cambridge, England **Architects:**

Michael Hopkins and Partners-Michael Hopkins (design principal); John Pringle (project architect); Robin Snell, Chris Williamson, Nic Bewick, John Eger (project team)

Engineers:

Anthony Hunt Associates (structural); Ove Arup and Partners (membrane and cables); YRM Engineers (building services)

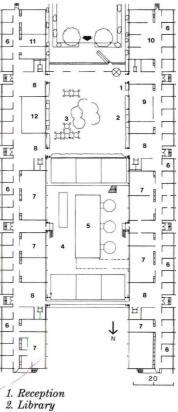
Consultants:

Tim Smith Acoustics; White & Turner (quantity surveyor)

General contractor:

Bovis Construction Ltd.

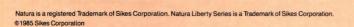


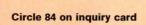


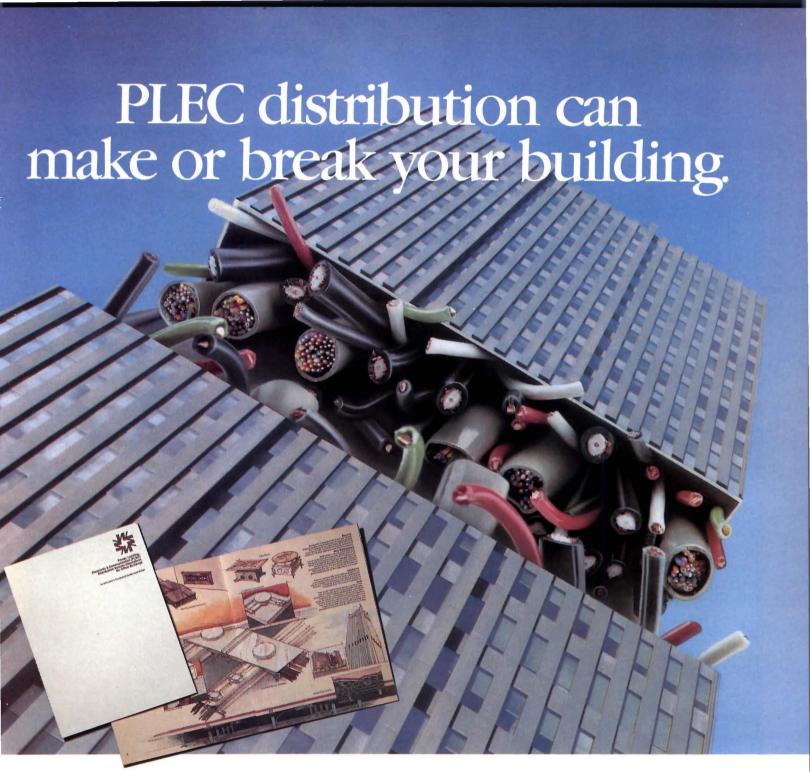
- Cafeteria
- 4. Test station5. Pressure pump/drilling pits6. Scientists' offices
- Laboratories
- 8. Discussion areas
- Conference room
- 10. Management/administration
- 11. Computer rooms
- 12. Kitchen











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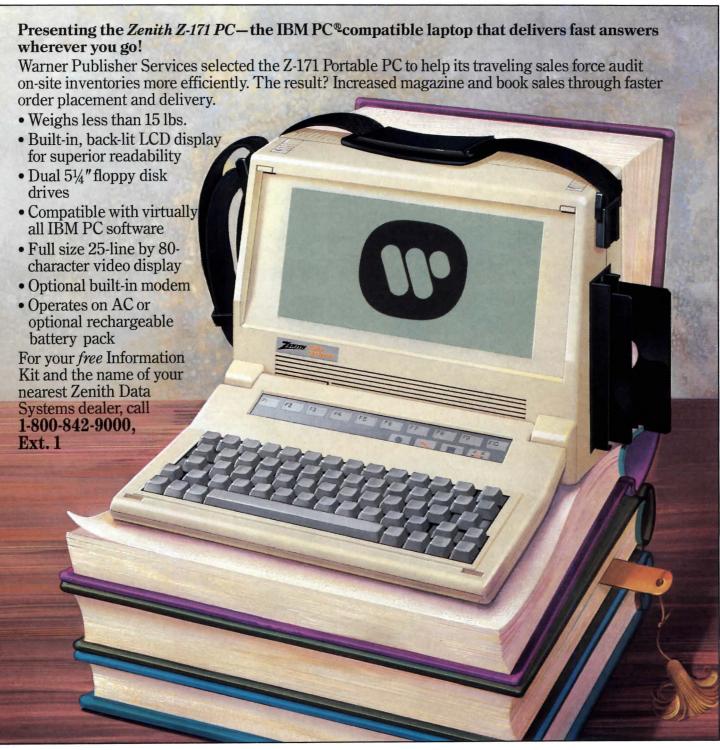
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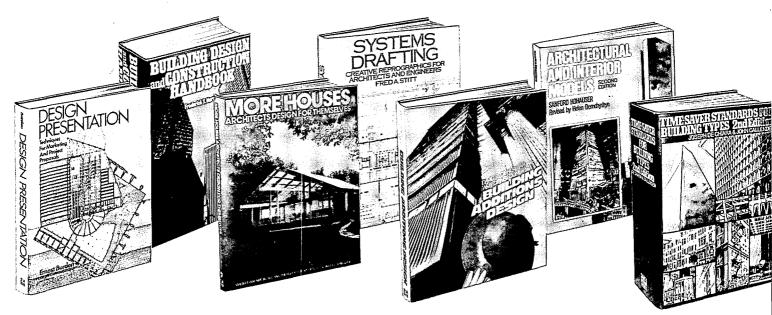
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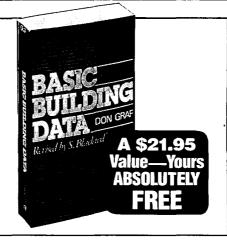
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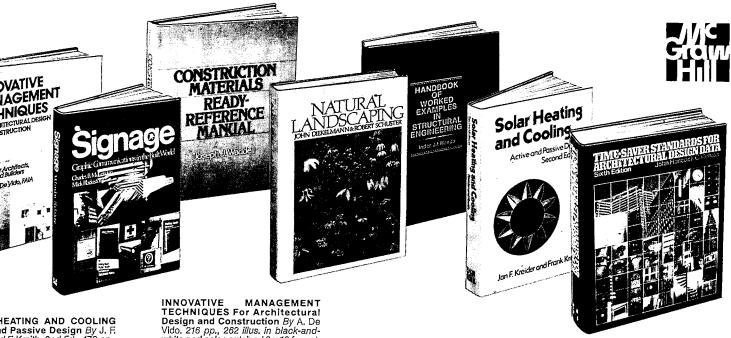
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IMPORTANT WARNING FOR USERS OF SYLVANIA METALARC, SUPER METALARC, AND SWINGLINE LAMPS

All Sylvania Metalarc, Super Metalarc, and Swingline lamps are subject to a type of failure in which the arc tube, operating at a pressure of approximately 50 psi, bursts and shatters the outer jacket. If the outer jacket shatters, the hot quartz arc tube particles (as high as 1832°F, 1000°C) and the outer jacket glass particles will be discharged against the fixture's enclosure or into the environment if the fixture is open. In the event of such failure, THERE IS A RISK OF PERSONAL INJURY AND PROPERTY DAMAGE FROM HOT QUARTZ ARC TUBE PARTI-CLES, SHATTERED GLASS, BURNS AND FIRE, unless the precautions recommended below are taken.

This warning applies to all Sylvania metal halide lamps with the letters "M", "MS", "MM", or "MST", regardless of operating position (horizontal or vertical), wattage (100, 175, 250, 400, 750, 1000 or 1500), or date of manufacture.

A bi-metal switch defect in some Sylvania Super Metalarc and Swingline lamps manufactured during 1984 and through June of 1985 increases the risk explained above that the arc tube may burst and shatter the outer jacket. To determine if your Super Metalarc or Swingline lamps have this increased risk, CONTACT GTE SYLVANIA IMMEDIATELY at the number listed below, and have the model number from the top of the lamp and the date code from the lamp base ready to give to GTE.

RECOMMENDED PRECAUTIONS TO REDUCE RISK OF DANGER

- 1. For open fixtures containing 400 Watt vertically positioned Metalarc or Super Metalarc lamps, the fixture must be enclosed or, in the alternative, replacement lamps designated MSA 400 are available. The MSA 400 lamp may only be used in vertical fixtures where the outer jacket temperature does not exceed 285°C (545°F). Contact GTE Sylvania for further information.
- 2. All other open fixtures must be enclosed: This requirement for enclosing open fixtures applies to all fixtures containing Sylvania Metalarc, Super Metalarc and Swingline lamps except for the Sylvania MSA 400.
- 3. Enclosures must be made of suitable materials: Enclosures containing Sylvania Metalarc lamps must be capable of withstanding the discharge of hot quartz arc tube particles, described above. GTE has identified only tempered glass as a suitable lens or diffuser material, but end users should contact their fixture manufacturer to determine if other suitable enclosures are available.
- 4. It has come to GTE's attention that enclosures which comply with U.L. Standard 1572 (December 10, 1984) may not withstand an arc tube rupture. The risk of fire and injury to persons or property may be present even though the enclosures have U.L. labels.
- 5. GTE continues to recommend that all metal halide lamps be cycled (turned on and off weekly) and group relamped at the end of the rated life. Until your fixtures are enclosed, the lamps should be turned off when the area is not occupied. However, these procedures are not a substitute for the precautions in paragraphs 1,2 and 3.
- 6. If you have an open fixture or if you do not know whether the enclosures in your fixtures can safely withstand an arc tube rupture, CONTACT YOUR FIXTURE MANUFACTURER **IMMEDIATELY** for assistance.

IF YOU HAVE ANY QUESTIONS REGARDING THE ABOVE, CALL GTE SYLVANIA AT THIS TOLL- FREE NUMBER: 1-800-445-1160 (Massachusetts) or 1-800-292-7904 (remainder of continental U.S., Alaska, Hawaii, Puerto Rico).





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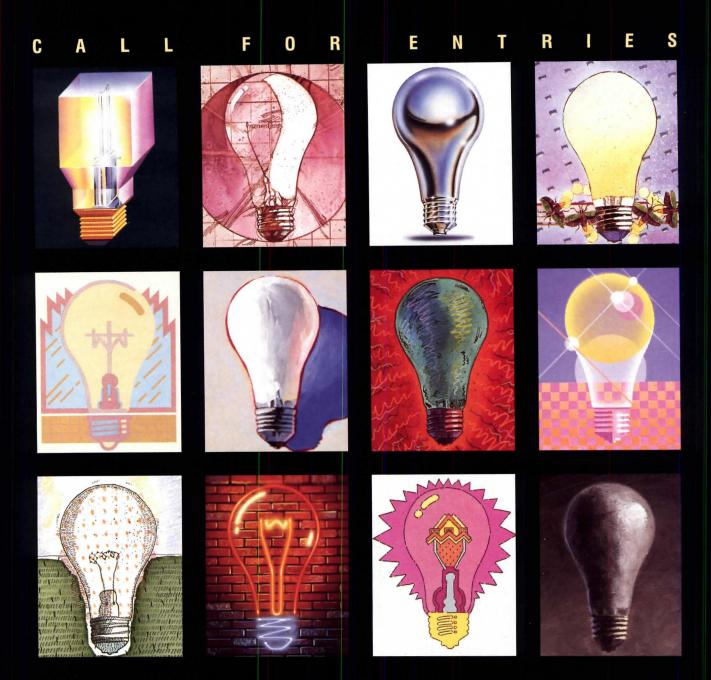


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For June Trade Shows

CIG CREATES "CROSSROADS" MULTI-BOOTH;
PROVIDES HUB FOR DESIGN / CONSTRUCTION /
MANUFACTURING FIRMS TO VIEW SPECTRUM
OF INDUSTRY SERVICES AT ONE SPOT.

<u>CIG</u> will launch its new multi-booth hub this June at three major industry meets. When applicable, all 10 CIG units will participate.

"HUB" Concept: Provide one-stop "crossroads" where attendees can get overviews of latest developments in CIG's spectrum of disciplines. Display set up as "wheel" with "spokes" devoted to individual units. Central area designed as "hub" for mingling of disciplines and attendees.

Among planned CIG multi-booth highlights:

- -Preview demo of Electronic Sweet's Files
- —Demo of <u>Dodge MicroSystems Design Estimator</u>
- —Demo of <u>ENR ON-LINE</u> (<u>24-hr. electronic</u> new business leads)
- —Backgrounding sessions with both <u>editorial and</u> <u>advertising</u> experts from <u>category leaders</u> in construction magazines and newsletters
- —One-on-one explanations of <u>latest forecasting</u> <u>techniques</u> via <u>Dodge/DRI</u> computerized data base

Besides exposure to all <u>CIG</u> resources, "hub" seen as <u>major meeting area for attendees and exhibitors</u>. CIG personnel are familiar with most major players, are eager to arrange introductions.

Look for <u>CIG</u> multi-booth at the <u>AIA National Convention</u> June 8-11, in San Antonio; "<u>Electric '86</u>", June 17-19 in Manhattan; "<u>A/E Systems '86</u>" in Chicago, June 23-27.

BLDG. PRODUCT MANUFACTURERS EXPRESS NEED FOR BETTER "USE FACTOR" INFO; DODGE / DRI PLANS MULTI-CLIENT STUDY OF UP TO 10,000 PROJECTS PER YEAR.

So far, 25 major manufacturers have indicated interest in sponsoring a unique multi-client study to produce statistically reliable data on building product coefficients, or "usage factors". Basically, this <u>Use Factor Study</u> is designed to <u>relate sq. footage or dollar value</u> of construction projects <u>to quantities of specific building materials</u> for a given structure type and geographic region.

On-going reliable data would provide a firm basis for <u>forecasting</u>, <u>production planning</u>, <u>sales planning</u>, <u>new product development</u>. Similar <u>individual</u> company studies usually prove too expensive.

<u>Dodge/DRI</u> study will spread the cost among participants. Methodology is unprecedented: <u>Up to 10,000 sample projects will be randomly selected</u> from universe of <u>Dodge Construction Starts</u>, largest data base of its type; sample will be cross-referenced with <u>Dodge/SCAN blueprint inventory</u> of actual jobs for detailed takeoffs.

1986 Use Factor Study research start-up planned for May 1. For information, or a sample of product detail format, call Business Development Managers Glenn Richards, at 513-721-6262, or Bernard Paque, at 617-860-6588.

Circle 97 on inquiry card ********

At I.M. Pei's new Javits Center

OVER 250 COMPANIES WILL EXHIBIT

AT "ELECTRIC '86" SHOW JUNE 17-19;

ATTENDANCE BONUS: BEHIND-THE-SCENES

TOURS OF UNIQUE ELECTRICAL SYSTEMS.

Exhibitor list is Who's Who in every facet of electrical products. Twenty-three seminars organized by Joe McPartland, <u>EC&M</u> editorial director, will cover everything from proposed changes in '87 NECode, to computer use for electrical design, to selecting modern lighting equipment.

Of interest even to architects and engineers not generally concerned with electrical: guided tours of the unique electrical system, showing how equipment for massive and sophisticated power needs was incorporated into I.M. Pei's 1.8-million-sq. ft. masterpiece.

Because some 10,000 attendees are expected, tours of the electrical system will be given on a first-come, first-served basis. Tour passes will be available at a special booth at the show. Pre-show tour reservations can be made through John Behmke, Publisher of EC&M and Electrical Wholesaling, sponsors of "Electric '86" with support of Eastern Electrical Wholesalers Assn. Call John's assistant, Joanne Wheatley, at (212) 512-3082.

Closing for ads in EC&M bonus circulation show issue is April 15.

SWEET'S ADDS "SELECTION DATA" TO ENGINEERING FILES AT NO EXTRA COST; NEW VOLUME OF OBJECTIVE GENERIC INFO TIED TO MANUFACTURER CATALOGS IN SWEET'S.

800-page volume provides <u>unbiased</u> generic data so construction designers can approach manufacturers' product literature with confidence in judgment. "Selection Data" was developed in conjunction with AIA, other associations. Was previously available as a separate purchase or with Sweet's General Building File.

Used even before searching for specific brands and specs in <u>Sweet's Catalogs</u>. Evaluation charts, selection check lists are cross-referenced to guide user to appropriate manufacturer catalogs in <u>Sweet's</u>. <u>1986 "Selection Data"</u> will be in use in over 29,000 design offices. Cross-reference listings provide free bonus to manufacturers in <u>Sweet's</u>.

Circle 100 on inquiry card

DODGE INTRODUCES "BID ANALYSIS", REVOLUTIONARY NEW SOFTWARE PROGRAM FOR CONTRACTORS.

Despite increasing interest in computer technology, contractors have had well-founded doubts about many software programs. To help eliminate confusion and speed up superior software development, <u>F.W. Dodge</u> has set up a software marketing unit.

After 4 years of intensive exploration to identify the best analytical tool for general contractors, Dodge is introducing <u>Bid Analysis</u>, a revolutionary software program that enables contractors to <u>tabulate</u>, <u>analyze and evaluate</u> subcontractors' proposals with incredible speed and accuracy.

At Dodge's recent introductory demonstration for 185 Dallas-area contractors, <u>doubters started to be believers</u>. Some ordered <u>Bid Analysis</u> immediately after the demonstration, most said that demo was "impressive" and wanted to "think it over" and "discuss with our estimators."

Developed by Timberline Systems, Inc., <u>Bid</u>
<u>Analysis</u> calculates <u>total bid</u> with extreme accuracy and provides for analysis of <u>all phases of subcontractor bids</u> plus such factors as <u>general contractor's own crew and equipment and addons such as bond, insurance, overhead and profit.</u>

Most important, speed of program lets contractors accurately analyze multiple last-minute changes

even on <u>Bid Day</u>. <u>Early users say Bid Analysis has</u> paid for itself on just one job that they bid on—and won.

Circle 101 on inquiry card

AT THE BIG JUNE SHOWS • • SOME GOOD PEOPLE TO MEET

I'd like to do a little name dropping on the occasion of four major industry shows coming up in June. There are some people who could be profitable for you to meet.

As mentioned in a preceding story, June is the intro of our new "crossroads" booth, with all units in one spot.

We hope it's an advantage to you. For one thing, it'll be easier to make sure you get the best answers to any questions. For example, you might ask an editor a market trend question which could be answered more specifically by one of our computerized data base specialists. Or vice versa. With the crossroads booth, they're right next door.

Here's a list of key people, so you'll know who to ask for to talk specifics:

George Christie, Vice President, Chief Economist, McGraw-Hill Information Systems Company.

—<u>General Managers</u>: <u>Frank Benz</u>, Cost Information Systems; <u>Wes Fraser</u>, F.W. Dodge; <u>Perry</u> Sells, Sweet's.

—Publishers: Paul Beatty, Architectural Record and Building Economics; John Behmke, EC&M and Electrical Wholesaling; Jim Black, Black's Guide; Dave McGrath, Engineering News-Record.

—Editors: Art Fox, ENR; Natalie Gerardi, Building Economics; George Ganzenmuller, Joe McPartland, W.J. Novak, EC&M, Electrical Wholesaling; Mildred Schmertz, Architectural Record.

Other Specialists: Don Clayton, Dodge VP-Mktg., who's in charge of Dodge Software; Tom Kavet, Dodge/DRI Director of CIG's computerized data base; Harry Mileaf, expert in computer use in construction; Steve Moss, VP-Planning/Development. Plus Sweet's staff architects to advise on your catalog content.

One regret: because of shipping problems, our crossroads booth won't be at the CSI show June 20-22nd. But our people will definitely be there at individual booths.

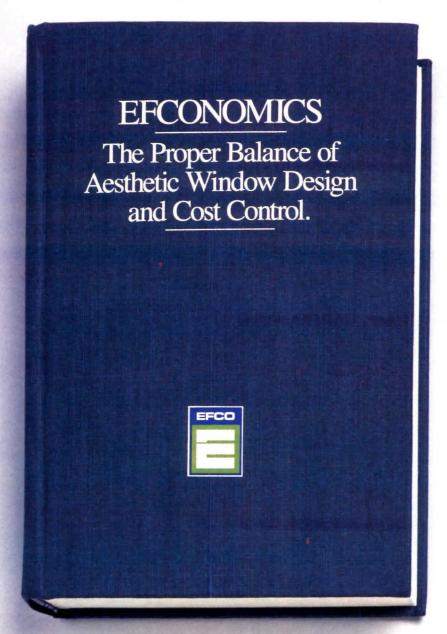
I'll be at <u>all</u> the shows, and so will our sales people. Hope to be seeing you.

Rick Jannott,
 Executive Vice President, CIG



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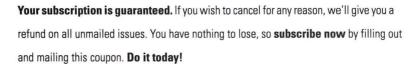
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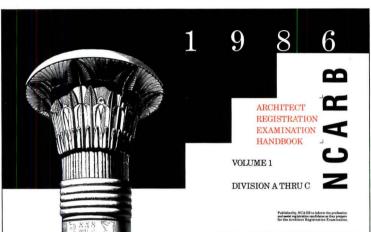
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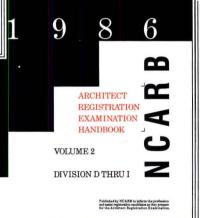
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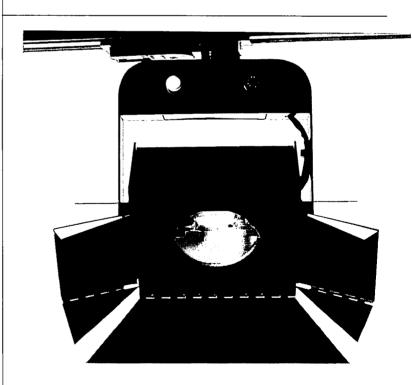
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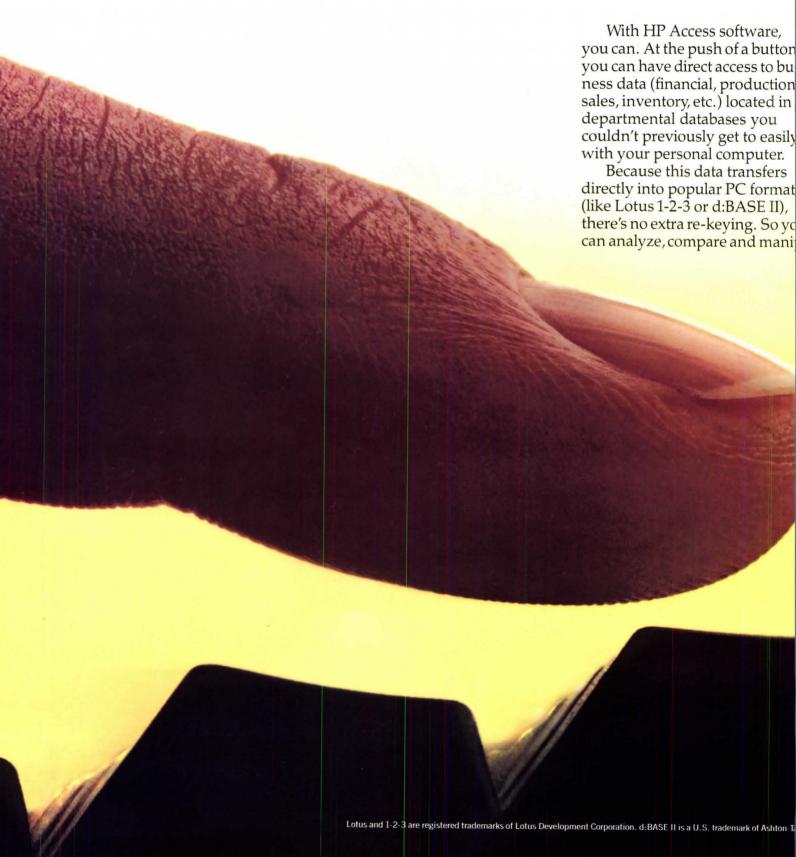


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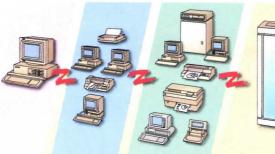
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Manufacturer sources

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

Pages 97-103

The Pace Collection Steven Holl, Architect

Pages 97-99-Storefront framing, metal and glass entrance: A&S Windows Sandblasted amber glass: Jorge Rodriquez, Designer Glass.

Page 100-Integral color plaster: Halton Hall. Recessed spotlights: Peter Barna, Light & Space. Brass and glass fixtures: custom by architect, fabricated by Alvin Cooke Metal Works. Candlesticks: by Steven Holl for Swid Powell. Vitrine: FIAM for The Pace Collection. Buffet plates: by Steven Holl for Swid Powell.

Page 101-Lounge chair with ottoman: Lyon for The Pace Collection. Sofa: Monique by Mariani for The Pace Collection. K-Desk with reading light, Linear chair and Janus table: by Steven Holl for The Pace Collection.

Pages 104-107

ARQ Products

Arquitectonica International Corp. Page 105—(top) Track lights: Lightolier. Suspended fixture: Santa Monica by Matteo Thun. Blue chair: First Chair by Michele De Lucchi for Memphis. Curved table: Madonna table by Arquitectonica for Memphis. Floor lamp: Treetops by Ettore Sottsass for Memphis. (bottom) Sideboard: Casablanca by Ettore Sottsass for Memphis. Table: Brazil by Peter Shire.

Page 106-Chair with mirror: Judy Henderson. (bottom) Sofa: Dublin by Marco Zanini for Memphis. Chair: Johnny's Girl by Howard Meister. Screen: Peek-a-boo by Judy Henderson.

Page 107—Cylinder buffet by David Zelman. Diamond plate chair: David Weiner. Stool: Taburete by Javier Mariscal for Bieffe. Ties: Arquitectonica Products. Tahiti lamp by Ettore Sottsass for Memphis. Laminate surfaces: Formica Colorcore, fabricated by Atlantic Millworks. Hand-painted walls: custom by architects, executed by Artifacts.

Pages 108-111

Bogner Store, San Francisco Mack, Architect

Pages 108-109—Teak and glass entrance: Durney Brothers. Custom door pull:

Pages 110-111-Wood display fixtures, yellow stain: Custom by architects, fabricated by Durney Brothers. Track lighting fixtures: Halo. Pendant fixture: Custom by architects, fabricated by Shaper Lighting Products. Carpeting: custom, by Hugh MacKay & Co. Neon lighting: Neon Neon. Deadbolt lockset: Schlage. Pivot hinges: Rixon. Closers: LCN.

Pages 112-119

Anchorage Museum of History and Art Mitchell/Giurgola and Maynard & Partch Pages 112-114-Flag poles: Morgan-Francis Co. (aabec). Benches: custom, by Vermont Structural Slate Co. Poster kiosk: custom, by Aluminum & Bronze Fabricators, Inc. Diamond panel sculpture: Robert Pfitzenmeier. Brick masonry: Belden Brick Co.; Mutual Materials Co. Dietenhahn Brownstone panels: Vickery Stone Co. Owl mosaic: Ned Smyth, artist.

Fixed wood windows: Duratherm. Clerestory aluminum windows: Kawneer. Glazing: Southwall (Heat Mirror). Stainless steel balanced doors: Ellison Bronze Co. Panic hardware: Von Duprin.

Page 114—(lower) Skylights: Kawneer. Poured-in-place concrete pavers with slate strips: Vermont Structural Slate Co. Downlights (exterior wall fixtures): Sterner (Type ABL-M).

Page 115—(bottom) Observatory framing: Kawneer. Glazing: Southwall. Custom suspended light fixture: Sterner. Roofing: Carlisle (Sure Seal). Insulation panels: Dow (Styrofoam LG).

Page 116-Flooring and pool: Green slate, Vermont Structural Slate Co.; Georgia Marble Co. (Mezzotint). Glass block sculptor: Athena Tacha. Fire sprinkler heads: Grinnell. Railings: custom by Aluminum & Bronze Fabricators, Inc. Lighting fixture (in dome): Sterner. Drywall: Georgia-Pacific. Natural oak and walnut paneling: Northwest Millwork. Paints: Pratt & Lambert. Flooring finish:

Huntington Laboratories, Inc.

Page 117—Information desk: Northwest Millwork. Red seating: Rudd. Upholstery: Uniroyal (Spirit of 76). Ceiling tile: Simplex Metal Pan.

Page 118—Carpeting: Harbinger (Highland Weave). Light tubes: Custom by Sterner. Wall covering: Wal-Rus Products. Cannister lights: Edison Price. Custom grid ceiling: Technical Ceiling Systems, Inc. Air diffuser (slots): Anemostat. Teak and mahogany windows: Duratherm. Blinds:

Page 119—Carpeting: Harbinger. Seating: Irwin Seating Co. (Citation 4656). Upholstery: Chatham Mills. Recessed downlights: Edison Price. Western Hemlock wall paneling: Howard Mfg. Co. (Ventwood VS-8812)

Pages 120-125

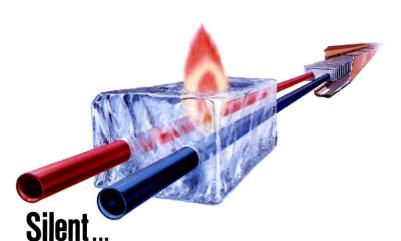
Uris Hall addition

Peter L. Gluck and Partners, Architects Pages 120-121—Grey Indiana limestone and Elbrook bluestone: Quarrier: B.G.

Hodley, Inc.; fabricated by Bybee Stone Co. Installed by Bergen County Cut Stone Co. Aluminum entrance doors: Ellison Bronze Co. Pulls: custom by architect. Curtainwall: Wausau Metals Corp. Glazing: PPG. Steel windows: Coast to Coast Mfg. Co. Copper roofing parapets: Nassau Roofing and Sheet Metal Corp.

Pages 122-124-Clock: custom by architects, fabricated by Electric Time Co., Inc. Stair enclosure: Portland Cement Plaster. Terrazzo flooring and steps: Tellini Terrazzo Co. Stairway lights: McPhilben. Pendant light: custom by architects. Uplights: Ellison. Downlights: Omega. Paint: Benjamin Moore. Skylight: Lynbrook G & A Metals Corp.

Page 125—Ceiling and wall diffusers: Titus. Interior metal doors: Acme Steel Door Co. Locksets: Corbin. Hinges: Stanley, Door-O-Matic. Drywall: USG. Door closers: Norton. Seating: American Seating. Chalkboards: Greensteel, Inc. Projection screens: custom by architects. Desktops: Hatfield Brothers, Inc.



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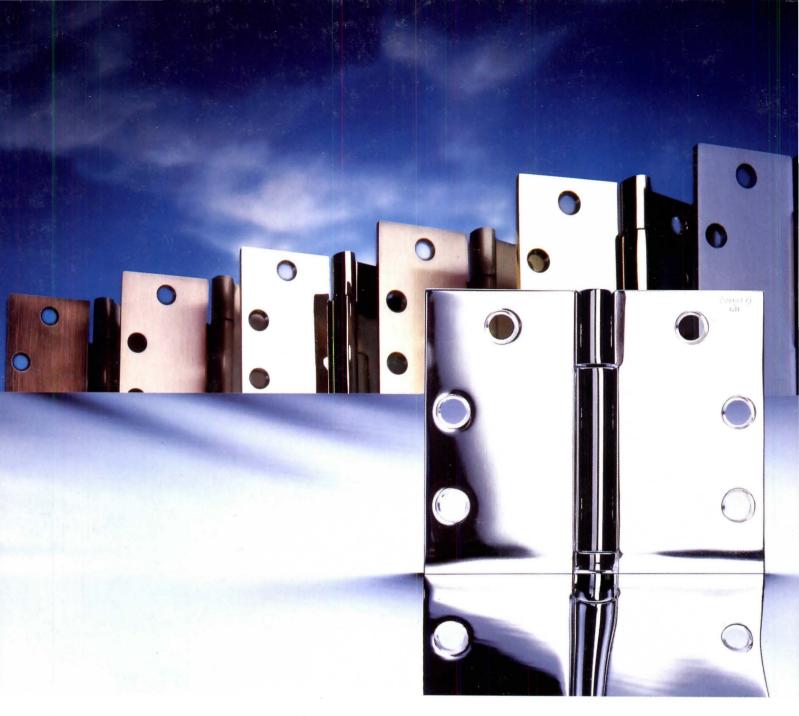
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