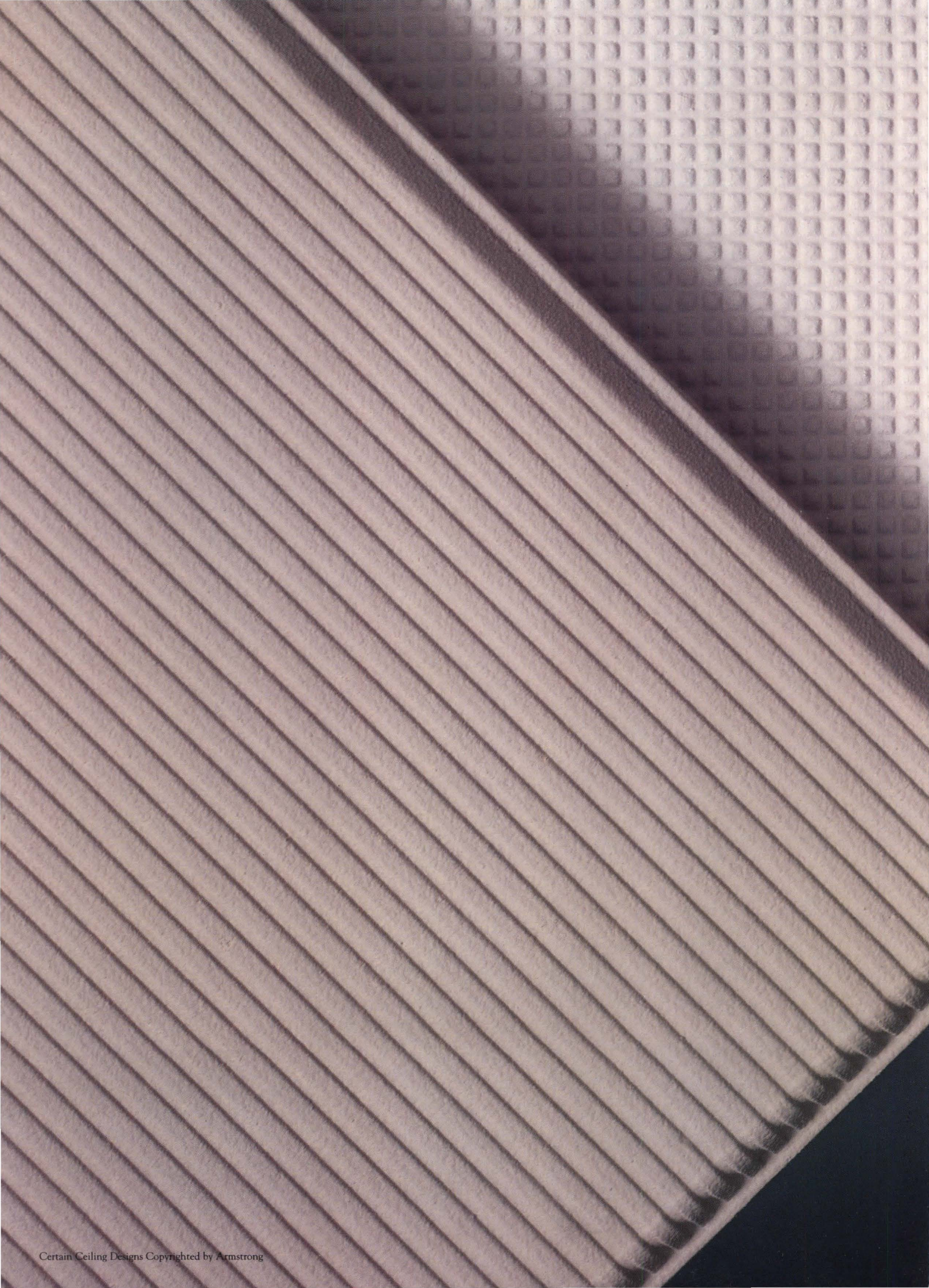
Progressive Architecture

FEBRUARY 1988



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FEBRUARY 1988

Progressive Architecture

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82

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Cover
Portland Center for the Performing Arts (p. 57) is heralded by neon-accented gates by BOOR/A. Photo: Timothy Hursley.

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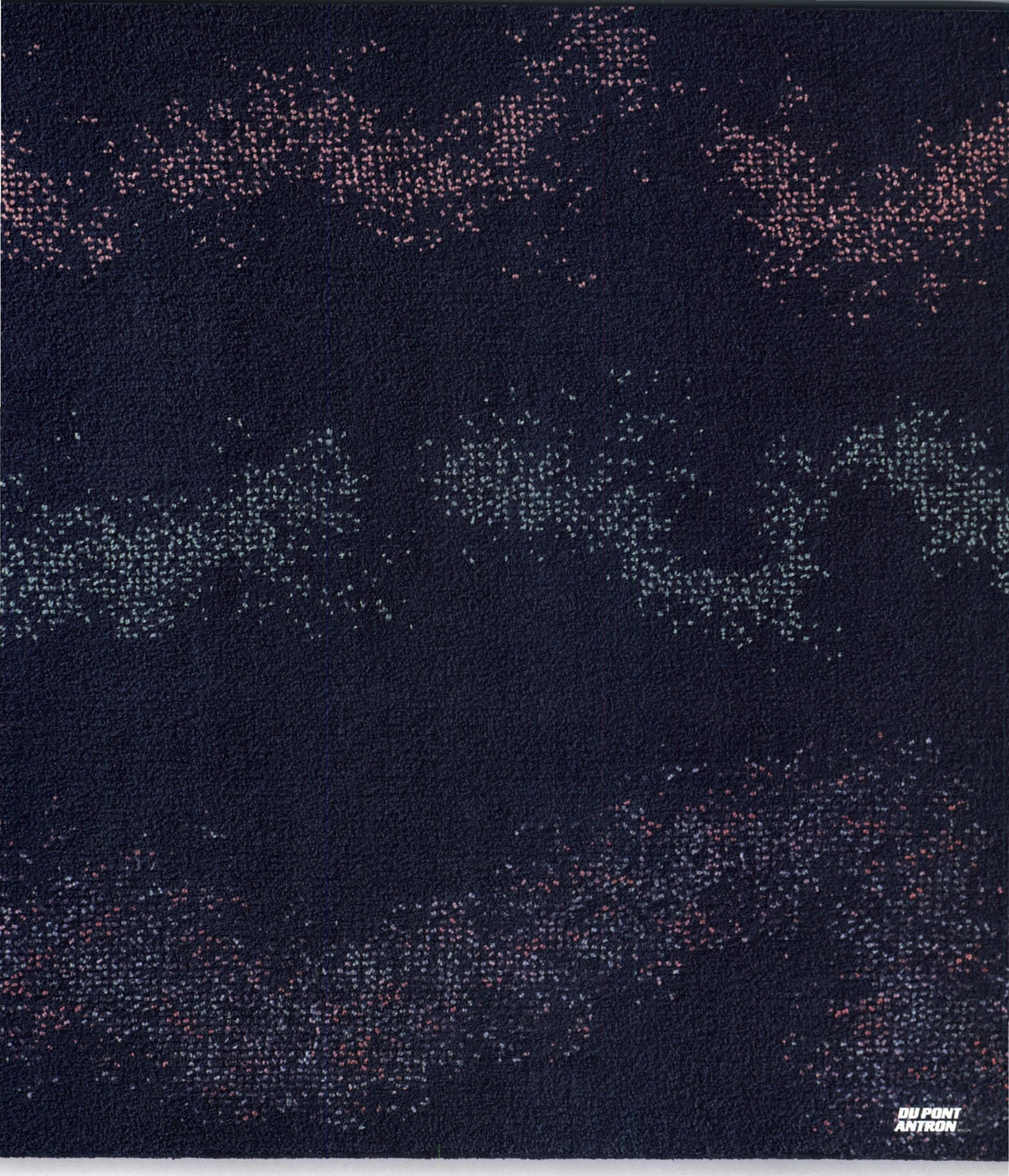

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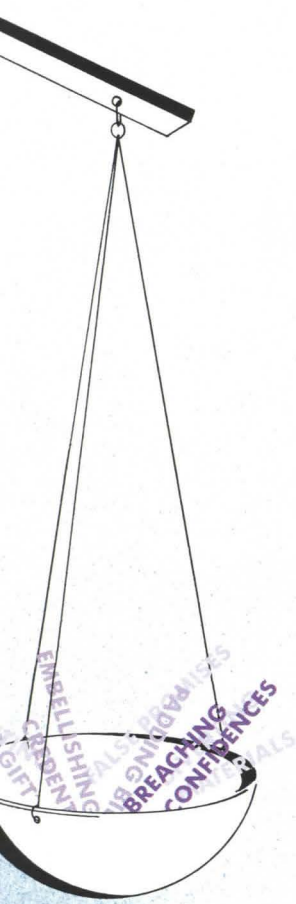
P/A Reader Poll
Ethics

Architectural professionals believe ethical abuses are widespread and demand attention, but there is less agreement on which actions are unethical.



The P/A Reader Poll on Ethics elicited over 1300 responses. This number, higher than the average for the seven polls to date, reveals the extent of concern about ethical issues among architectural professionals. Of these responses, 1000 were randomly selected for tabulation and analysis here.

Who responded
Ethical concerns are by no means limited to owners and principals of firms (who made up 53 percent of the respondents). There were also substantial representations of staff architects (22 percent) and project managers (13 percent) and a fairly typical profile in terms of years in the profession (57 percent 10 or more years) and firm size (53 percent from firms of 10 employees or less).

How many unethical (Figure 1)
How much cheating is going on? The median response to this question is that 30 percent of the profession is engaged in unethical conduct. While 19 percent estimate that less than 10 percent of the profession engage in unethical practices, 5 percent think that over 90 percent do.

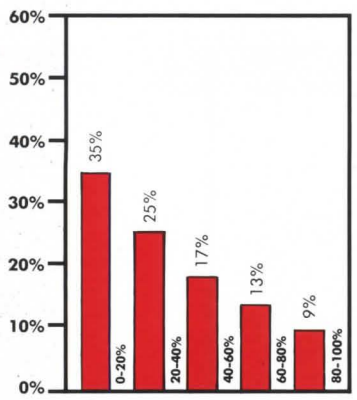
Obviously this range of opinions represents varying views about what is unethical (about which more later). Those with the least experience (three years or less) perceive the most unethical conduct (almost 40 percent of the profession); those with over 20 years experience perceive the fewest offenders (about 25 percent).

Reporting infractions (Figure 2)
Nearly all of the readers are ready to report ethical breaches. Unethical conduct that does not threaten their own firms would be reported by 67 percent of the respondents, while 80 percent say they would report conduct that threatens their own firms; altogether, 94 percent would report infractions under some circumstances. Those who believe that over half of the profession is involved in unethical conduct show somewhat less inclination than others to report it, suggesting that they are more resigned than others to what they see as a bad situation.

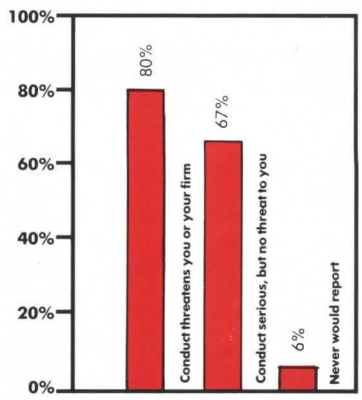
Ethical influences (Figure 3)
When asked what three factors are the strongest in keeping architects ethical, readers cite most frequently the threats of lawsuits and losing licenses. The possibility of AIA action carries less weight than maintaining personal standards or reputations. (More later about views on AIA's role.)

The power of AIA action is taken more seriously by those outside architecture and A/E firms (12 percent citing it) than by those in the profession itself (7 percent citing it). The six listed factors were ranked similarly by all factions, except that those with 20 years or more experience ranked personal codes (cited by 67 percent) above lawsuits (59 percent); rightly or wrongly, these elders take the threat of lawsuit less seriously than younger colleagues.

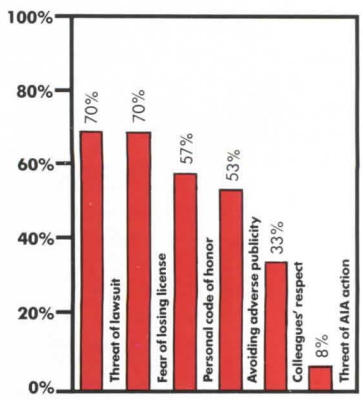
What's unethical (Figure 4)
When asked to rate 25 specific actions in terms of ethics, readers are by no means agreed. On the basis of their answers, Morrison & Morrison divided the 25 sets of answers into four categories: unethical actions (by general agreement); normal business practices (by general agreement); gray areas (borderline, with few readers calling them either serious or normal); split decisions (polarized, with substantial responses at both ends of the spectrum).
Serious breaches of ethics: The three most serious offenses in the eyes of readers—the ones considered reportable by half or more of the respondents—all involve potential public harm. Yielding to a demand that compromises public safety is considered unethical by 97 percent of respondents, normal practice by none. Concealing construction



1 "What percent of architects do you believe engage in unethical behavior"?



2 "Under what circumstances would you be likely to report unethical conduct of a fellow professional?"



3 "What are the three strongest factors influencing architects to abide by ethical standards?"

errors and sealing someone else's drawings, other infractions included in this category, also have implications for public safety.

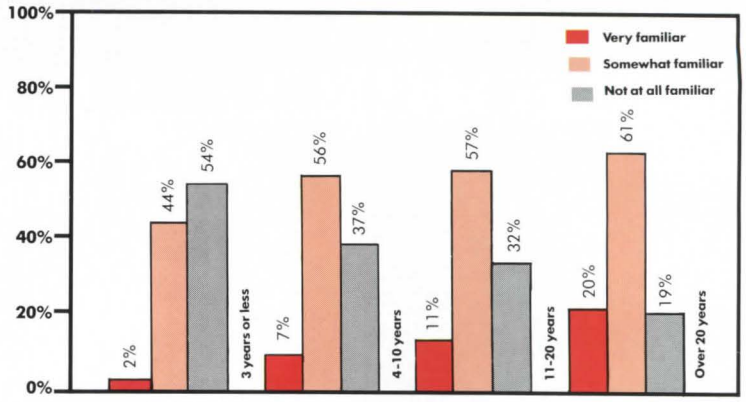
The other two actions in the clearly unethical category are unfair mainly to fellow professionals (altering credentials) and to clients (padding bills). Older professionals consider padding of billing hours a more serious offense than do younger ones. Except for such padding, all of the offenses listed here are addressed in the AIA Code of Ethics.

Gray areas: In this category, Morrison & Morrison placed actions that seem to be borderline unethical. All of these are classified as unethical or not entirely fair by two-thirds or more of readers, with relatively few calling them either reportable offenses or normal practice. In general these breaches are damaging to clients or colleagues, but not the public. Understandably, more of the younger professionals consider it unethical to give low pay to recent graduates (55 percent for the up-to-three-years group vs. 26 percent for owners/principals). Younger readers also have somewhat stronger objections to false promises of advancement, but this is perceived as unethical by all factions (e.g., by 78 percent of owners/principals). Some of these actions—those involving fairness to employees, confidentiality, and sharing credit—are addressed in the AIA code.

Split decisions: More controversial than "gray area" actions are several situations perceived as either unethical or as normal business practices by substantial portions of the respondents. Into this category fall several ethical issues that the profession shares with the rest of the world, questions of environmental hazards, bias, shady accounting, payoffs, and misappropriation. Owners/principals are more lenient than staff professionals on charging personal expenses to the firm—16 percent viewing it as normal vs. 7 percent for project managers and staff architects. Assigning white males to repre-

	Serious, reportable offense	Unethical	Not entirely fair	Normal business practice	Most frequent unethical actions
UNETHICAL ACTIONS					
Yielding to a client demand that could compromise public safety	73	24	2	–	11
Agreeing with a contractor not to report some construction errors	56	31	11	2	12
Putting one's seal on drawings one has not supervised	50	28	13	10	29
Embellishing one's school or professional credentials to get a job	35	47	12	6	19
Padding the billing hours on one job to offset losses on another	30	52	14	5	31
GRAY AREAS					
Spreading unfavorable gossip about a firm that is competing with yours for a commission	17	65	15	3	14
Discussing a confidential project with another potential client	13	73	13	2	7
Hiring/keeping employees with false promises of advancement	11	70	18	1	23
Accepting full credit for work that others collaborated on	9	62	27	2	28
Incompletely informing a client about potentially controversial design features	11	44	40	4	11
Yielding to a client request that will result in unsatisfactory performance	9	38	38	15	14
Paying recent graduates exceptionally low wages because your firm is sought after for experience	5	30	45	19	19
SPLIT DECISIONS					
Soliciting a job from a client who has already agreed to give the commission to another firm	17	53	19	11	12
Giving a gift to a local official	24	39	17	19	6
Using surplus materials from a client's construction for one's own premises	25	36	27	11	3
Making sure that your firm is represented by only white males in dealing with some clients	20	39	29	12	8
Writing off personal expenses as business expenses	16	43	28	12	27
Accepting work from a client whose operations pose environmental hazards	20	37	25	18	5
NORMAL PRACTICES					
Accepting work in a country that denies civil rights to any of its citizens	4	36	34	26	1
Accepting a gift from a contractor	8	28	22	41	6
Accepting a gift from a building product manufacturer	4	21	25	49	4
Accepting moonlighting jobs while employed full-time	3	10	28	59	6
Buying paid advertising for your firm	1	10	15	74	1
Supporting political candidates who might be helpful in the future	1	9	14	75	2
Accepting equity in a development as compensation for design services	1	4	12	82	1

4 How right or wrong is each listed action considered to be?



5 Familiarity with AIA Code of Ethics by years in the profession.

sent the firm is judged more severely by younger readers—77 percent of those with three years' experience or less considering it unethical or reportable vs. only 48 percent for those with over 20 years.

One of these split decision practices, soliciting a job from a client who has already agreed to give it to another firm, used to be banned under the mutual-protection ethics code that AIA maintained before the 1973 consent decree with the Justice Department; it is interesting that a practice quite normal in our competitive society as a whole is still considered unethical by a substantial majority of today's professionals. (Not surprisingly, younger professionals and those outside architecture firms find this practice less objectionable, though slim majorities of these groups consider it unethical or reportable.)

Among the actions in this category, the AIA code covers only gifts to local officials (if made with the intent of influencing judgment) and the assignment of only white males in certain cases (assuming that this constitutes discrimination on the basis of race and "gender").

Normal business practices: This category includes some practices—advertising and accepting equity as payment—that AIA used to rule out, before Justice Department intervention. Only very small minorities still see these practices as unethical. Advertising, however, is frowned upon more by the youngest group of professionals—only 59 percent of whom perceive it as normal procedure—for reasons other than loyalty to previous rules, apparently.

Supporting political candidates is specifically allowed under the current AIA code, provided the contribution is not intended to influence judgment in favor of the donor. The question of working in countries that deny civil rights is comparable to some general ethical dilemmas found above under "split decisions," but here there is a pronounced tilt toward "normal practice"; younger professionals are more likely than their elders to see work in such countries as unethical. On the other hand, owners and older professionals take a dimmer view of moonlighting than their younger colleagues (44 percent of the 20-years-plus group calling it normal, vs. 77 percent of those with three years or less).

Accepting gifts from contractors and producers, while clearly dubious, is considered normal by almost half the respondents—with older ones less likely to see it as normal than younger ones. Morrison & Morrison conclude that many architects "apparently do not believe their decisions are influenced by accepting such gifts."

Seriousness/Frequency: After rating various practices on ethical ground, readers were asked to indicate which three unethical or reportable practices were most common. (The structure of the question necessarily produced low figures for actions not widely considered unethical, even though some of them may be common.)

Of the top seven actions ranked as serious offenses, it is somewhat encouraging that few are perceived to occur frequently. It is sobering nevertheless to see that sealing the drawings of others is considered a frequent offense by 30 percent, padding of bills by 31 percent, and embellishing of career records by 19 percent. And if 11 percent of readers have observed compromising of public safety to be common, that number is pretty chilling.

The AIA code (Figures 5–8)

Even though AIA's current code of ethics is less than two years old, the more experienced respondents claim the most familiarity with it. But there is some question whether all of them claiming full knowledge of this code (identified on the questionnaire as "recently adopted") aren't still thinking of superseded rules. In the ethical rating of specific actions, reported familiarity with the AIA code correlates with objections to two practices—advertising and soliciting work already committed to a competitor—that are not banned under the current code.

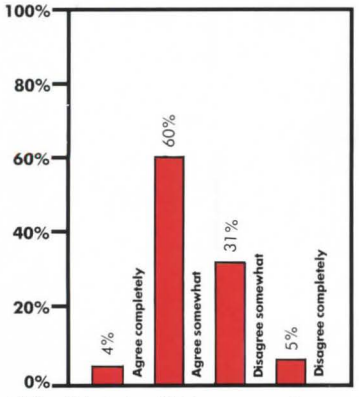
The AIA code is not seen by readers as sufficiently comprehensive—understandably since Justice Department policies limit its scope. Those who claim to be very familiar with the code, however, view it more positively, 13 percent of them agreeing completely that it is adequate. And those who perceive relatively little misconduct in the profession are also more inclined to see this code as sufficient.

About 78 percent of readers agree that the AIA code is too weak, and 90 percent agree that AIA's reluctance to act would limit the code's effectiveness. Here again, those most familiar with the code perceive it as more effective than other respondents do.

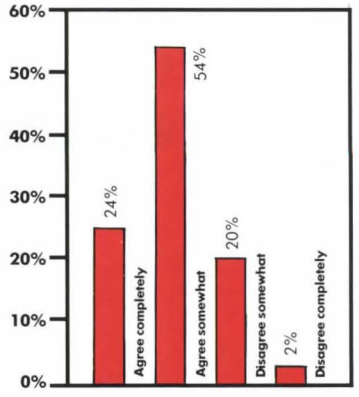
Conclusion

Readers believe that unethical conduct is common; close to one-third of the profession is perceived to engage in it. Of the 25 diverse practices listed in P/A's questionnaire, about half are difficult for readers to agree upon—falling either into a gray area between ethical and unethical or into a split-decision category, with widely divergent views.

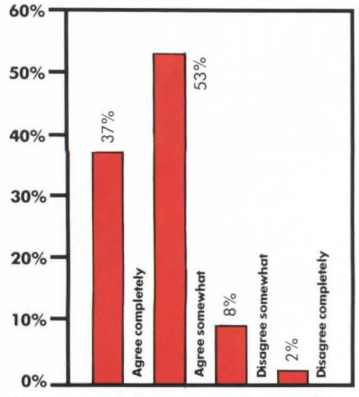
The kinds of unethical behavior seen as occurring frequently seem to fit the established characteristics of this profession as engaged in intense competition, pressed for money, and tempted to please clients at any cost. The possibilities of self-policing in the profession are limited both by lack of agreement in some areas and by the government's restrictions on efforts that might affect competition. ***John Morris Dixon*** ■



6 "The AIA Code of Ethics covers all areas necessary to guide practitioners."



7 "The AIA Code of Ethics is too weak to influence actual practice."



8 "The effect of the Code of Ethics will be limited because AIA may be reluctant to take disciplinary action."

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P/A News Report

Dida Biggi

Gino Valle's 94-unit public housing project in Venice, part of an extensive program of urban rehabilitation, is a modern reinterpretation of the Byzantine city. See Perspectives, page 32.

Burgee & Johnson's PortAmerica.

PortAmerica's Downscale Update

Final plans have been unveiled, again, for the controversial PortAmerica project located on the Maryland side of the Potomac south of Washington, D.C. As reported previously in these pages (P/A, Oct. 1986, p. 38) the 480-acre, $1-billion riverfront project designed by John Burgee Architects with Philip Johnson was besieged from its inception by criticisms from a wide variety of public agencies. Some purported to defend the capital city's architectural and urban design interests, while others worried over hazards to civil aviation (the site is adjacent to the flight path approaching

(continued on page 28)

ai Joins Steelcase

On January 4, Atelier International became the newest member of the six-month-old Steelcase Design Partnership, a group that now comprises Steelcase/Stow & Davis, Brayton International, Vecta Contract, Metropolitan Furniture Company, and ai.

Stephen Kiviat will continue as president of ai and will become a member of the Design Partnership's management planning council. As do all members of the partnership, ai will still operate separately under present management, maintaining its manufacturing, marketing, and distribution systems.

In a related announcement, Italian furniture manufacturer Cassina said that ai would continue to function as that company's sole distributor in the U.S. ■

Coliseum Switch: Safdie Out, SOM In

David Childs of Skidmore, Owings & Merrill, New York, has replaced Moshe Safdie, Montreal, as architect for the controversial Coliseum Center in New York (P/A, Aug. 1985, p. 23).

The change in architect is only one in a series of related announcements made over the past several months by developer Mortimer Zuckerman of Boston Properties. Following the withdrawal of the investment firm Salomon Brothers as prime tenant and backer for his Coliseum project, Zuckerman negotiated a new purchase agreement with the City of New York.

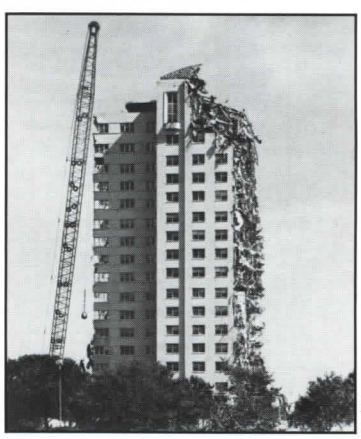
Although Childs has five months to come up with a new design, Zuckerman has already stated that it will be 75 feet shorter than the tallest of Safdie's two towers, rising no higher than 62 stories or 850 feet. But that change is not likely to satisfy critics, most notably the Municipal Arts Society, an urban advocacy group that won its suit in December charging that the city violated its own zoning laws in the developer selection. ■

Winning design by Harris Dimitropoulos for Bastille Monument.

An American Wins in Paris

Anticipating the bicentennial of the French Revolution in 1989, several Parisian groups organized an international competition to design urban monuments commemorating the event. "Invent '89" called for "a mythical, radical and universal image" while specifying no program or material limitations. No

(continued on page 28)



Paul Hester

Houston's Shamrock Hotel comes down.

Luck Runs Out for the Shamrock

With the demolition last November of the Shamrock Hotel, Houston lost a much loved—and occasionally maligned—landmark.

When it opened St. Patrick's Day in 1949, the 18-story hotel jarred Houston's skyline. Its name was chosen by a contest run through local newspapers,

(continued on page 28)

Pencil Points

John Rauch **has withdrawn as a principal of Venturi Rauch & Scott Brown, Philadelphia. The architect will continue as a consultant to the firm.**

Carr Lynch Associates, **Cambridge, have been named planning consultants for the redevelopment of the 26-acre Prudential Center in Boston's Back Bay. A previous plan by HOK (P/A, March 1986, p. 21) for 3 million square feet of new construction, including a 51-story condominium tower, was scrapped following a storm of community protest. Carr Lynch will work with guidelines now being developed by a committee of 22 neighborhood and civic groups selected by the city.**

Richard Serra's "Tilted Arc" **won't be moved after all. Members of an advisory committee of the National Endowment for the Arts that had been organized to screen other sites for the 12-foot-high, 112-foot-long steel sculpture decided instead that the work, which was commissioned specifically for its site in front of a government office building in lower Manhattan, could not be relocated without damaging its artistic integrity.**

The controversial service tax **in Florida has been repealed just six months after it went into effect (P/A, Sept. 1987, p. 35). The tax, which applied to architectural and other services, was replaced by a one-percent increase in the state sales tax. Three other states still tax services, including architecture.**

Six architects **are in the running to design the Walt and Lily Disney Concert Hall, at The Music Center in Los Angeles, endowed by a $50 million gift from Lillian B. Disney. Gottfried Böhm, Cologne, Germany; Henry Nichols Cobb, I.M. Pei & Partners, New York; Frank Gehry, Frank O. Gehry & Associates, Venice, Calif.; Hans Hollein, Vienna; Renzo Piano, Building Workshop, Genoa, Italy; and James Stirling, James Stirling/Michael Wilford and Associates, London, were chosen by an Architecture Subcommittee chaired by MOCA Director Richard Koshalek.**

Interior renovation of Union Station as a station cum shopping mall.

The Malling of Union Station

After more than a decade of abuse and disuse, Washington's Union Station—once among the finest of railroad stations in the United States—is well along the road to a recovery of sorts. Plans hatched in 1981 by the federally chartered Union Station Redevelopment Corporation, following years of false starts and botched efforts, called for restoration of Daniel Burnham's 1907 Beaux-Arts masterpiece as a combined railroad station, office building, and commercial shopping mall. Partly as a response to the continued decline of the railroads and, one may say, to the prevailing view that the private sector will do better, or at least cheaper, the station will probably emerge as more shopping mall than railroad station.

While it is hard to be against the welcome prospect of the station's renewal, its history still brings pause. In anticipation of huge crowds that never materialized for the 1976 national bicentennial, the station was "converted" to something called a National Visitor's Center. Among other things, its once-great hall housed an ill-fated multiprojector slide show (memorable because it never worked) and a number of rarely frequented (hence rarely staffed) public information booths. The entire saga, which, incidentally, gave rise to a number of well-publicized lawsuits, was an architectural and tax-dollar travesty of major dimensions, taking place just blocks from the Capitol. By 1980, Union Station had become so dilapidated and damaged by leaking water that it was deemed a public danger and closed.

Carol M. Highsmith

Restored Union Station Head House.

The fine restoration was directed by Harry Weese & Associates, Chicago, for the Department of Transportation; the retail design and interiors were headed by architects Benjamin Thompson & Associates of Boston. Judging from drawings and the substantial progress of work to date, it appears that the station as a building will again possess a large measure of its original grandeur. The commercial aspects of the project seem to be going well, too, on their own terms: more than half of the 100-plus commercial retail spaces have been leased, most to "upscale" retail tenants. A mammoth parking structure, which stood unfinished for years, will at last be completed above the tracks behind the main station.

If one overlooks the lingering construction debris and the vile condition of the "temporary" train station to its rear, now in its 13th year of use without much maintenance, and never very pleasant to begin with, it *is* heartening to visit Union Station today. You can actually imagine it as it once was and may yet be again. Still, when all is said and done (targeted completion date: September 1988), a lingering question will remain in the minds of those who knew the wonderful place when: Why didn't they just leave the poor thing alone?

Thomas Vonier ■

Exploring Hispanic Traditions

"Hispanic Traditions in American Architecture," a symposium held last fall at Columbia University's Temple Hoyne Buell Center for the Study of American Architecture, marked the first attempt in this country to document nearly 500 years of Spanish influence in the Western Hemisphere.

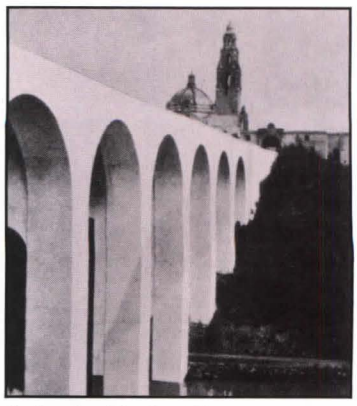
This seminal event, which was organized by Susana Torre, and accompanied by two exhibitions, brought together an impressive group of historians and practicing architects from nine different countries.

A casual chronological sequence was followed for the two-day event, ranging from 16th-Century colonization in South and Central America through the reemergence of Hispanic traditions in 20th-Century architecture in the United States.

Spanish urbanism, as Ramon Gutierrez of Argentina explained, proved an ingenious means of spiritual and economic conquest in the new world. Spanish architecture, on the other hand, underwent a purification and simplification process, becoming more formulaic for religious buildings, but freer for civic and private constructions. While the former accommodated the church's universal goals, the latter was able to incorporate local cultural idiosyncrasies.

In considering the influence of Spanish architecture on American production, David Gebhard of the University of California, Santa Barbara, presented the seductive and sparkling romance of California Spanish Style during the 1920s and 1930s. Several participants argued that this period in American architecture, combined with concurrent developments in several Latin American countries, constituted a significant international movement.

Finally, the presence of

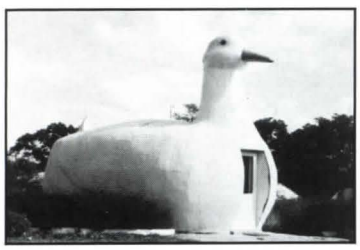


Balboa Park in San Diego.

Charles Moore, who showed past and current architecture influenced by the Spanish Style in various Sunbelt states, gave a certain weight to the last session, dedicated to Hispanic influence today. But it was Jorge Rigau of Puerto Rico, who, in his lucid analysis of Spanish Revival villas on the island, went beyond the appearance of Hispanic traditions to analyze possible didactic and professional applications today. While other speakers were concerned solely with the face of Hispanic architecture, Rigau was more concerned with its essence and intentions.

An illustrated monograph, certainly the only way for those who were not present to realize and understand the importance of this tradition, awaits publication. ***Warren A. James*** ■

The author, a designer with Robert A.M. Stern Architects, New York, is a frequent contributor to P/A.



Jeffrey Milstein

Long Island's Duck about to move.

The Duck Stops Here

The Big Duck, Long Island's roadside landmark whose fate had been the subject of concern for roadside architecture buffs, has been temporarily relocated to Sears Bellows Pond County Park in Flanders. The current owner, Kai Eshigmi, has donated the Big Duck to Friends of Long Island's Heritage, a private organization whose long-term goals, he feels, match his own. The recent move beats a March deadline when a private developer takes possession of the 11-acre wooded site on Route 24 that has been the duck's home since 1936 when it was relocated from its original site in Jericho.

Long Island poultry grower Martin Mauer built the duck in 1930 to advertise his Long Island Peking duck farm. The Collins brothers, Long Island prop designers for New York City theaters, tied a live chicken—not a duck—to a porch as a model. The body and one wing were completed in one day. Pleased with their progress, the brothers celebrated the next day, leaving the masons to copy the second wing from the first. The result: two left wings. The hand-sawed wood frame is covered in concrete. No nails were used; glue and stove-pipe tin ribs hold the structure together.

The eyes—actual Model-T tail lights—the small tail plume, and orange beak have been stopping local traffic for nearly 47 years. The duck gained international fame when featured in Robert Venturi's book *Learning from Las Vegas* (MIT Press, 1972), and is now considered one of the best examples of roadside American Architecture of the 1920s and 1930s.

Eshigmi, a sculptor and businessman, purchased the duck (and the Big Duck trademark) just over five years ago, then decided to break up the site, a scheme which would have allowed him to preserve the duck on one acre of its natural habitat while developing the remaining ten acres. When town zoning regulations prevented him from doing that, Eshigmi sold the land to a private developer but kept the duck. The purchaser granted Eshigmi 18 months to find it a new home.

Once news of the transactions surfaced, Lance Mallamo, Director of Suffolk County Division of Historical Services, and Gerald Kessler, president of the 10,000-member Friends organization, approached Eshigmi to discuss preservation and long-term-use programs. One possibility, says Mallamo, is a museum of roadside architecture.

The Friends will launch a fund-raising drive as soon as the donation agreement is finalized. Kessler estimates it will cost $40,000 to $50,000 to repair and maintain the duck. Although it was hit by a car in 1963 and has stood empty for three years, the duck is "in good shape," he confirms.

Those who wish to contribute to the preservation fund should contact Gerald Kessler, Friends of Long Island's Heritage, 1864 Mutton Town Rd., Mutton Town, N.Y. 11791 (516) 364-1050. ***Jessica Elin*** ■

Wright Buys

The news at the latest auction of Frank Lloyd Wright decorative art designs at Christie's auction house in New York was not who bid but who did not. Michigan collector Thomas S. Monaghan (P/A, Nov. 1987, pp. 118–123) declined to bid against Governor James R. Thompson, enabling the Illinois governor to "buy back" five lots of furniture and drawings from the 1903 Dana House in Springfield for a mere $330,000. ■

Photos: Fred Charles

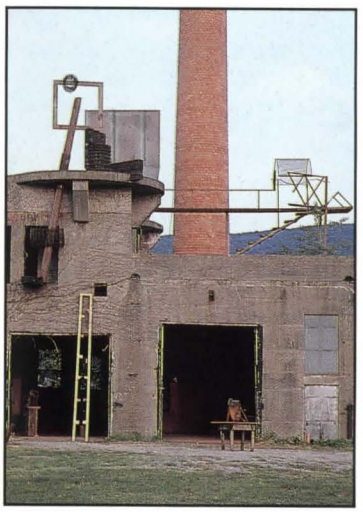
William McDonough's pyramid.

The (Dis)unity of the Arts

The idea of a unity of the arts—of artists and architects jointly conceiving of and working on projects—remains for both groups a long cherished goal. But in those instances where it has been sought, as it was this past summer at the Triangle Artists' Workshop, that goal has proven elusive.

Triangle Artists' Workshop, founded in 1982 by artists Anthony Caro and Richard Loder, convenes about 40 artists for two weeks each summer at a fish and game preserve in Pine Plains, New York. Last summer, the Triangle Directors invited architects Frank Gehry of Frank Gehry & Associates, Los Angeles, Alison and Peter Smithson of London and William McDonough of McDonough Nouri & Associates, New York, to work with artists in the building of structures. The collaborations apparently went well and produced some very fine large-scale pieces. But the workshop also highlighted significant differences in the way architects and artists think and work.

The architects themselves went about their tasks very differently from one another. William McDonough imposed an architectural order on the art. He gave his structure a program (a study for St. Jerome), a precise orientation (due South), a site reference (the pyramid shape reflecting the form of nearby hills), and a metaphorical justification (the masonry base and fabric roof representing the first shelter: the mud hut and the tent). The art, such as Roger Mack's playful "ivy" metal sculpture flanking the pyramid's entrance and Susan Roth's undulating mural that recalls the earth of the berm behind it, had to fit the geometry and program



The Smithsons' concrete pedestal.

of McDonough's highly controlled, and somewhat controlling, frame.

Frank Gehry, on the other hand, didn't impose his own order, but derived one from the art itself. Sculptors Anthony Caro and Jon Isherwood both described Gehry's contribution as one of taking the large-scale wooden pieces that they and Sheila Girling had begun to construct and arranging the objects so that they related to one another. The analogy Gehry used was that of a village, with the sculpture like so many buildings along a street. Gehry and his assistants also built a walk-through wooden whale for aspiring Jonahs.

The Smithsons saw their role as enablers, purposefully avoiding any preconceptions or

(continued on page 26)

Frank Gehry's wooden village.

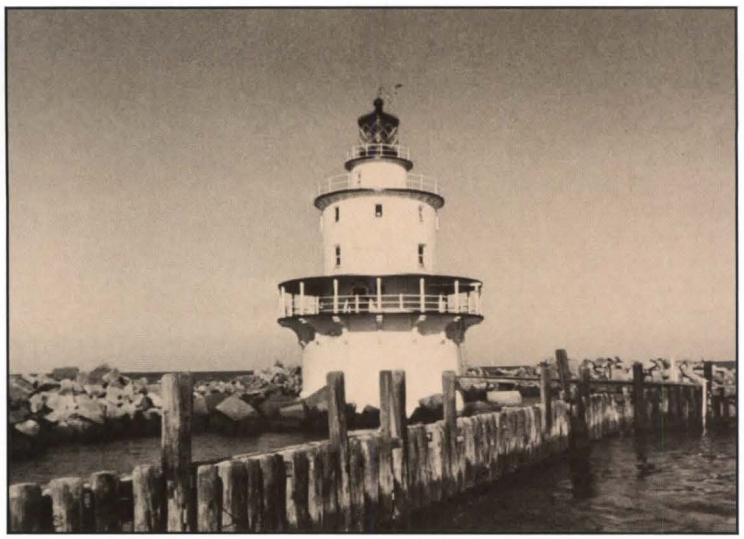
Arts *(continued from page 25)*
analogies. Working with an abandoned 1906 concrete dairy building, "we wanted to make the artists conscious of the possibilities of the space without influencing them," said Peter Smithson. What evolved was sculpture that either used the building as a podium or backdrop or, as in the case of Ian Redelinghuys's stairlike piece, created a way for people to get from the building to the roof.

The architects, as a group, also worked in a manner much different from that of the artists. "The artists," said William McDonough, "accustomed to moving their work from place to place, were not used to relating it to a particular geography and climate." That idea was confirmed by artist Jon Isherwood. "We typically look at an object and the immediate space around it," he said. "Frank Gehry showed our group how the objects related to each other and the buildings and landscape around them."

Another difference arose in the communication of ideas. "We had to make drawings to explain an idea," said Peter Smithson, "but many of the sculptors couldn't explain their thoughts through drawings. They have learned to work directly with materials." Sculptor Anthony Caro agreed, adding that "because the architects drew things up, they looked at things in a more conceptual, less experiential way." The architects also viewed their work as more of a collaboration and less of an individual activity. "The artists," noted William McDonough, "did not always understand how much architects have to organize and coordinate the work of many people." Added Anthony Caro, "We're frightened of architects, you know. We don't know how they can work with so many complications and so many things to think about."

"The one common ground of the architects and artists," said Jon Isherwood, "was dealing with the pure aspects of design, moving around forms and spaces. There, we all spoke the same language and had the same feelings." If a unity of the arts is possible, it may indeed lie in the aesthetic experience and in such universal design elements as form and space. But the vitality of the work produced at Triangle, whatever the differences among the ideas and methods of the participants, shows that a degree of conflict and disunity among the arts can be healthy.

Thomas Fisher ■

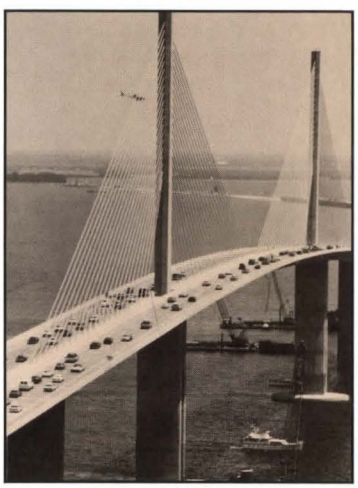


PCI winners: Brandywine Shoal Lighthouse.

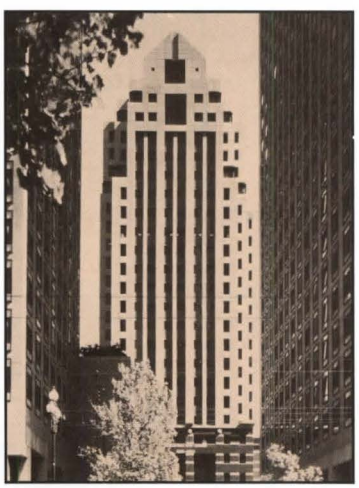
The 25th Annual PCI Awards

Fourteen equal awards of excellence have been presented in the 25th annual Prestressed Concrete Institute Design Awards Program. Four prestressed or precast concrete bridges and ten buildings were selected from over 150 entries.

The winners are: Commissioner of Public Works Administrative Offices, Charleston, S.C. (Lucas Stubbs Pascullis Powell & Penney, Charleston, architect; Johnson & King, Columbia, S.C., structural engineer); 1700 California Street, San Francisco (Jorge de Quesada, San Francisco, architect; Raj Desai Associates, San Francisco, structural engineer); Stevenson Place, San Francisco (Kaplan/McLaughlin/Diaz, San Francisco, architect; Cygna Consulting Engineers, San Francisco, structural engineer); Lincoln Plaza, Sacramento (Dreyfuss & Blackford Architectural Group, architect; Buehler & Buehler Associates, Sacramento, structural engineer); Olin Library, Kenyon College, Gambier, Ohio (Shepley Bulfinch Richardson & Abbott, Boston, architect; Linenthal Eisenberg Anderson, Boston, structural engineers); Arkansas Valley Correctional Facility, Ordway, Colo. (R.N.L. Facilities Corporation, Denver, architect; S.A. Miro, Denver, structural engineer); Stanford University Parking, Stanford, Calif. (The Watry Design Group, Redwood City, architect and engineer); the Hyatt Regency, Greenwich, Conn. (Kohn Pedersen Fox Associates, New York, architect; Lev Zetlin Associates, New York, structural engineer); Olympic Oval, Calgary (Graham-McCourt, architect; Simpson, Lester, Goodrich, Calgary, structural engineer); residence for Mr. and Mrs. Hans Keilhack, Charlotte, N.C. (Gene Leedy, Winter Haven, Fla., architect); Sunshine Skyway Bridge, Tampa Bay (Figg & Muller, Tallahassee, engineer/designer); Richard P. Braun Bridge, Coon Rapids and Brooklyn Park, Minn. (Minnesota Department of Transportation, St. Paul, architect/engineer); Research Boulevard Bridge, Kettering, Ohio (Edward Durell Stone, New York, architect; Lockwood, Jones & Beals, Dayton, engineer); University Bridge, Mississippi River at St. Cloud, Minn. (Howard Needles Tammen & Bergendoff, Minneapolis, architect/engineer); Harbor Street Grade Separation, Pittsburg, Calif. (CH2M, Emeryville, Calif., designer); Lightfoot Mill Road, Hamilton County, Tenn. (Division of Structures, Tennessee Department of Transportation, Nashville, structural engineer); Ten Central Car Park, Kansas City, Mo. (Patty Berkebile Nelson Immenschuh, Kansas City, architect; Norton & Schmidt, Kansas City, structural engineer); Tom Bradley International Terminal, Los Angeles (Pereira Dworsky Sinclair Williams, Los Angeles, architect; Brandow & Johnson Associates, structural engineer); Brandywine Shoal Lighthouse, Delaware Bay, N.J. (Duffield Associates, Wilmington, design engineer; Gredell & Paul, Wilmington, construction engineer). ■

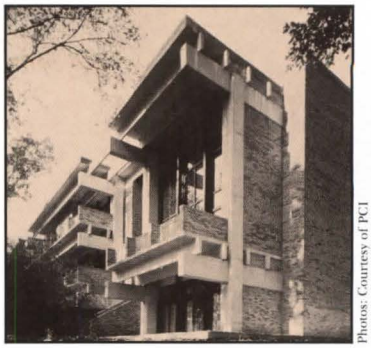


Sunshine Skyway Bridge.



Stevenson Place.

Keilhack Residence.



Olin Library, Kenyon College.

Photos: Courtesy of PCI

Film Festival in Switzerland

The relationship of architecture to cinema is receiving increasing attention in Europe. In France, Bordeaux sponsors a biannual festival of architectural films, and two days of films highlighted the recent Le Corbusier retrospective at the Pompidou Centre in Paris (P/A, Jan. 1988, p. 30).

Last October, it was Switzerland's turn, with the first International Festival of Films on Architecture and Urbanism in *(continued on page 28)*

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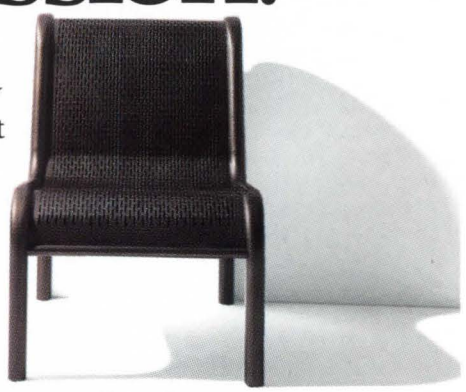

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Film *(continued from page 26)*
Lausanne (FIFAL). The event demonstrated more enthusiasm than real accomplishment. Over 600 films were submitted from 45 countries; 48 were placed in competition and some 150 others screened during the three-day Festival. Two genres dominated: the poetic and the documentary. The former—fluid, lyrical, and usually accompanied by dramatic music—focused on the beauty of architectural details, but often lost the sense of a building. The latter, descriptive and narrative, tended to cover more extended subjects, such as a city's architecture or an architect's career, and often sacrificed depth for simplicity. Mario Botta, serving on the jury, concluded that "the films' approach to architecture is more or less naïve."

The best films overcame these obstacles. The Grand Prize winner, Jacques Barsac's three-hour "Le Corbusier," ransacked the archives to present the architect's career with commentary by Corbu himself. His gravelly monotone and ironic humor brought home the man inside the "machine for living." A Polish film, "Blok," staged a series of Kafkaesque vignettes in a shabby apartment house, pitting black humor against the alienating aspects of modern urbanism. "Por Una Tierra Nuestra" employed stirring polemics to recount the efforts of homeless Argentines to build their own city from a Buenos Aires wasteland. The Public's Prize was awarded to "Numbers Out of Light," an astro-architectural analysis of the Church of the Holy Cross, in Nin, Yugoslavia, which demonstrated how its design served to calculate time and seasons.

The small number of winners—most of which had already won prizes in Bordeaux—testifies to the difficulty of making successful films about architecture. Can films reveal aspects of buildings hidden to other forms of representation? Botta's response was pessimistic: "The art of presenting space is extremely difficult. Film creates a fictional space which has only a passing relation to that created by architecture."

Another architect on the jury, Esteve Bonell Costa from Barcelona, focused on a different aspect, real duration. Film, he said, can show the evolution of a building through time, or re-create the times in which it was conceived and constructed. Buildings exist both as objects in space and as systems in time. The mobility of film might reconcile this dichotomy by showing how architecture is revealed through use. A project currently under way to film the evolution of Le Corbusier's housing project in Pessac over a five-year period will test this goal.

Unfortunately, there were few opportunities at the Festival for the audience to discuss the films and the questions they raised; one Danish filmmaker complained of "a festival devoted to consumption, not communication." Georgel Visdei, Director of the Festival and President of the Swiss Association for Scientific Films (under whose auspices FIFAL took place), promised that the Festival, improved by its experience, would return in 1988. ***Thomas Matthews*** ■

The author is a journalist based in Bordeaux who writes frequently for P/A on French architecture.

Paris *(continued from page 23)*
site was designated beyond the vague pretext of "an urban context." Competition sponsors—the Institut d'Architecture Français, the Grande Halle de La Villette, the Ville et Banlieue Association des Maires, and the review *Vaisseau de Pierres*—are now using the winning entries to support a worldwide fund-raising campaign to pay for construction of several entries.

One of ten winners, Harris Dimitropoulos, is an artist and architect living in Georgia. His proposal, a towerlike brick cylinder that stands 2.4 meters high with a diameter of 3.6 meters, is both a monument and an event. On the 14th of July, in a symbolic reenactment of the storming of the Bastille, the public will remove all but the cylinder's base. The bricks, inscribed with the words Liberté, Egalité, Fraternité on one side and 200 in Roman numerals on the other, will become provocative souvenirs of the event.

Dimitropoulos proposes that his brick citadel be constructed not only on the Place de La Bastille but throughout Paris and in other French cities. At each site, the round form will "provoke and disturb," says the artist. Even after their removal, some memory of the event and the object will remain. ***Claire Downey*** ■

PortAmerica *(continued from page 23)*
Washington's National Airport). At issue was the project's centerpiece, a World Trade Center tower, which, at its originally proposed height of 52 stories, would have been the tallest building between Atlanta and Philadelphia. The tower was later scaled down by ten stories. Now the granite-clad octagonal tower is planned to be a mere 22 stories in height, flanked by six office buildings of ten stories each.

That's all right. The real virtues of the project lie in its overall plan (inspired, its architects say, by unspecified 19th-Century American urban plans), which remains essentially unchanged in the "new" design. That plan boasts an exceptionally well-conceived treatment of the river's edge and sensitively links various disparate functions, ranging from full-blown commercial uses to private residential and community activities. Thus, even at some thirty stories below its original ambitions, PortAmerica should be an interesting and welcome addition to the Potomac's shores. Completion of the project's first phase is slated for 1990. ***Thomas Vonier*** ■

Shamrock *(continued from page 23)*
in a fashion typical of the developer, oil wildcatter Glenn H. McCarthy. For the opening, McCarthy's friend Eddie Rickenbacker of Eastern Airlines supplied four planes, and a train with 26 chartered Pullman cars brought celebrities from Hollywood. McCarthy himself made the cover of *Time*.

The 778-room, reinforced-concrete-frame Shamrock was built at a cost of $21 million and featured a night club over 100 feet square, a lobby paneled in Brazilian mahogany from a single huge tree, air-conditioned refuse storage, its own water supply from two deep wells drilled by McCarthy, and the world's largest hotel pool (165 by 142 feet). Its architectural character was, however, stodgy; the bulky building was

rendered by Houston architect Wyatt C. Hedrick in "Modern Romanesque" with a striped exterior capped with a green pantile roof.

To many, the audacity of the Shamrock (later the Shamrock Hilton) became a symbol of Houston's "can do" spirit, as McCarthy's hunch proved right, and urban development engulfed his hotel's supposedly remote site.

But to a generation of Modernist critics, the hotel was an abomination: Frank Lloyd Wright, receiving the AIA Gold Medal there shortly after its opening, said its big green neon sign should instead read "why?"; and Texas architect O'Neil Ford quipped, "I always wondered what the inside of a jukebox looked like."

Over the years, however, Houstonians came to love it. Yet, a dismal occupancy rate resulting from the declining oil market gave the Hilton chain the excuse to sell the 23-acre property. In December 1985, it was sold to the Texas Medical Center for the bargain price of $14.9 million, barely the value of the land alone. Hilton continued to operate the Shamrock through the end of June 1986.

When remarks by TMC President indicated an intention to demolish the hotel, local neighborhood groups resisted and even staged a "Save the Rock" parade and rally with 3000 people on St. Patrick's Day 1986. Yet, this past fall the end came, and with no announced plans for future development in any form, the Shamrock was demolished in November. The parking structure was converted to TMC use. ***Peter C. Papademetriou*** ■

National Trust Expands its Agenda

Billed as "Landmarks of Democracy," the 41st annual convention of the National Trust for Historic Preservation often went beyond the show-and-tell slide shows or how-to-use-tax-shelters talks of conventions past.

Perhaps it was the outsiders in town for concurrent Main Street U.S.A., and ICOMOS (International Council on Monuments and Sites) meetings who lowered the average age and raised the average attendance of the convention audience. The Trust's broader and livelier agenda may, however, signify a maturing of the preservation movement in America.

In the last four years, the 197,000-member organization has grown at the rate of 10,000 new members a year. While speakers still spoke of new brick pavers in Salt Lake City, they also heard lectures pushing new frontiers like landscape architecture and rural preservation.

Architects and architecture, however, were honored only in their absence if at all. A walking tour of new Washington in-fill developments, for instance, featured an array of fascinating structures labeled by the tour guide with the name of, say, developer Oliver Carr rather than the designer.

Nonetheless, if the Trust skimped on the specific credits of who designed what where, the overall conference managed to touch the larger issues of preservation that define architecture—from the single structure to the larger site, from the techniques of restoration to city zoning. ***Jane Holtz Kay*** ■

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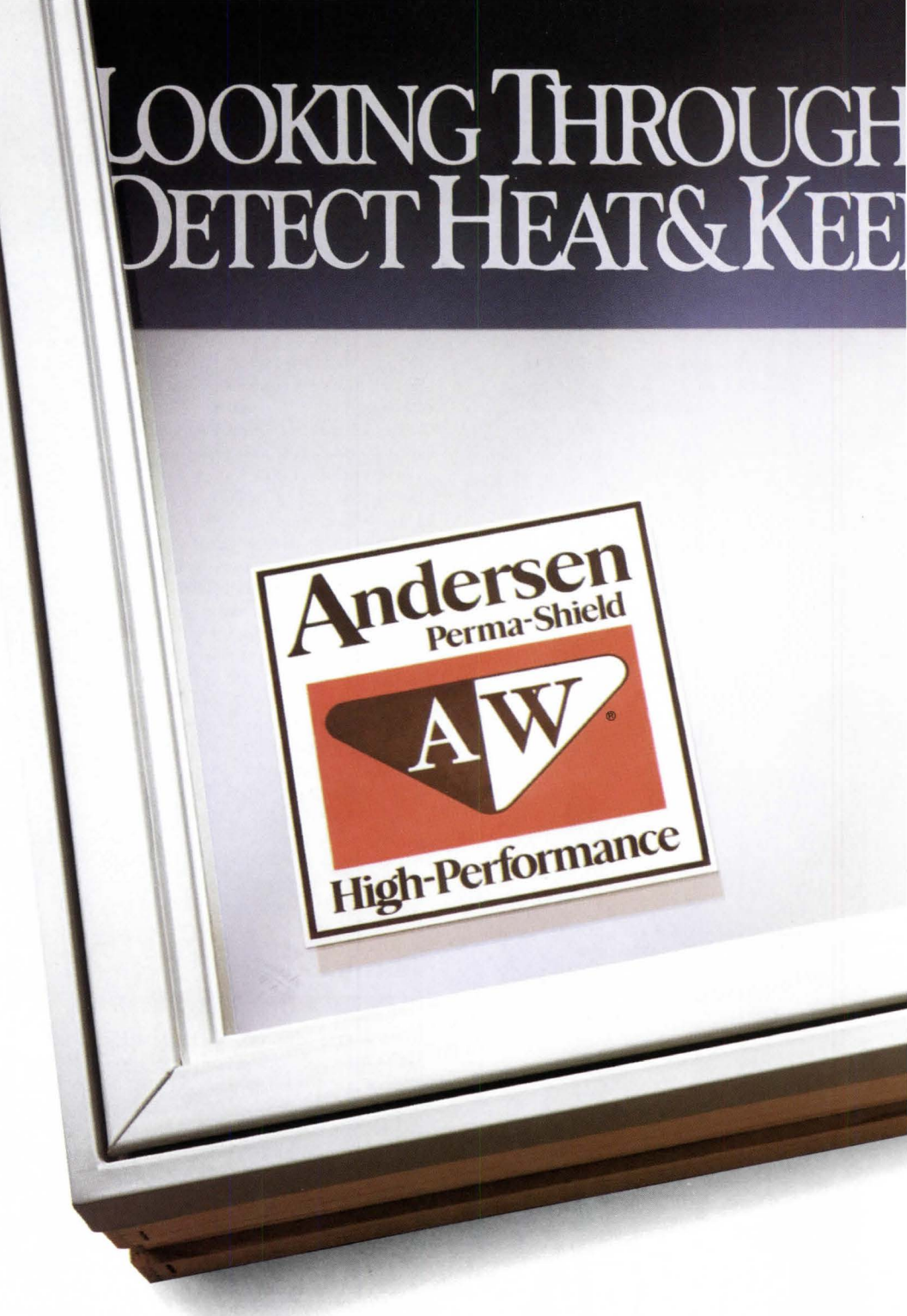

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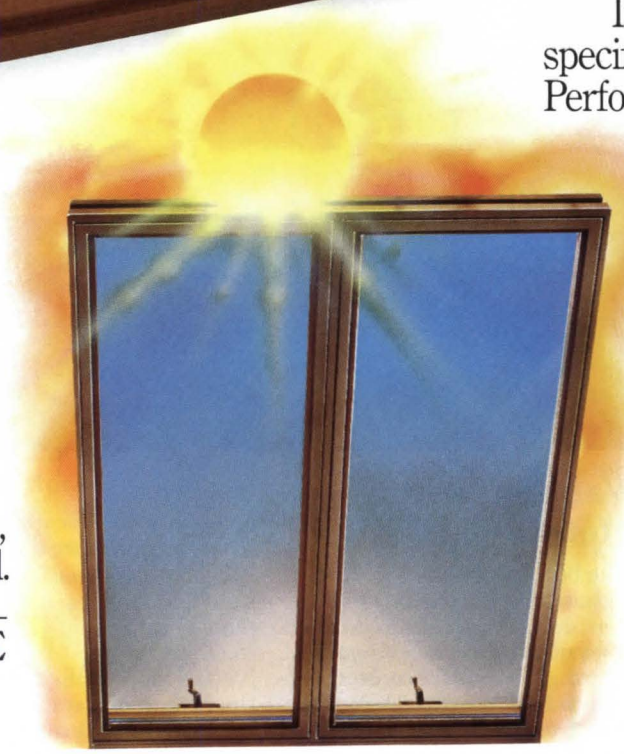

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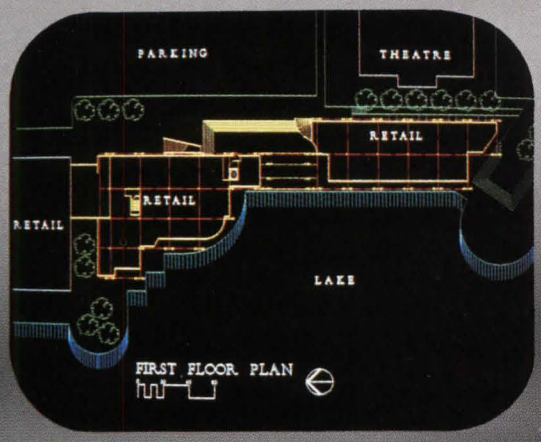
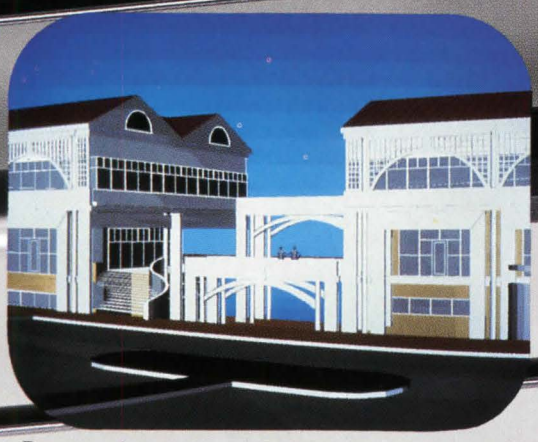


Production. Ordinary CAD does drawings one step at a time. ARRIS goes one step further. Simply feed in the basic design parameters, and the system *automatically* does the routine work, and makes any changes. And you can even add ARRIS to your existing CAD system, to complement, extend and enhance its capabilities.



Presentations. Ordinary CAD is a generic product. ARRIS has been created specifically for architects and building design professionals. It allows your clients to visualize your projects from any perspective. With sharp, colorful 3-D images that can be transferred easily onto slides.

Plus. Ordinary CAD was designed and intended for one person, one project. ARRIS is a multi-user, multi-task UNIX-based system. It was designed for the way architects and building designers *really* work, and to allow for future growth. It gives you the competitive edge, and will *keep* you competitive for years to come.

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ARRIS is a product of Sigma Design and is available in the U.S. and Canada. Computer images created by Jenkins-Peer Architects as part of Lakefront Shoppes at University Place project.

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These are some of the extraordinary advantages that make ARRIS the leading edge in architecture and building design. And this same software, that was developed and refined over 10 years of high-end usage, is now available on work stations and PC's—and at PC prices.

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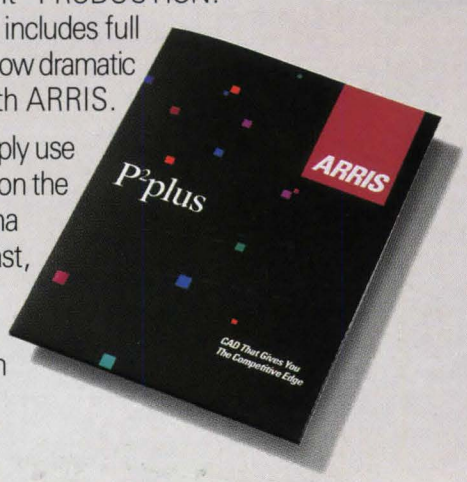

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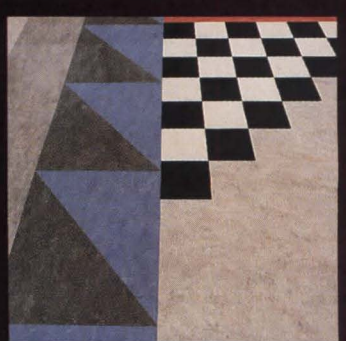


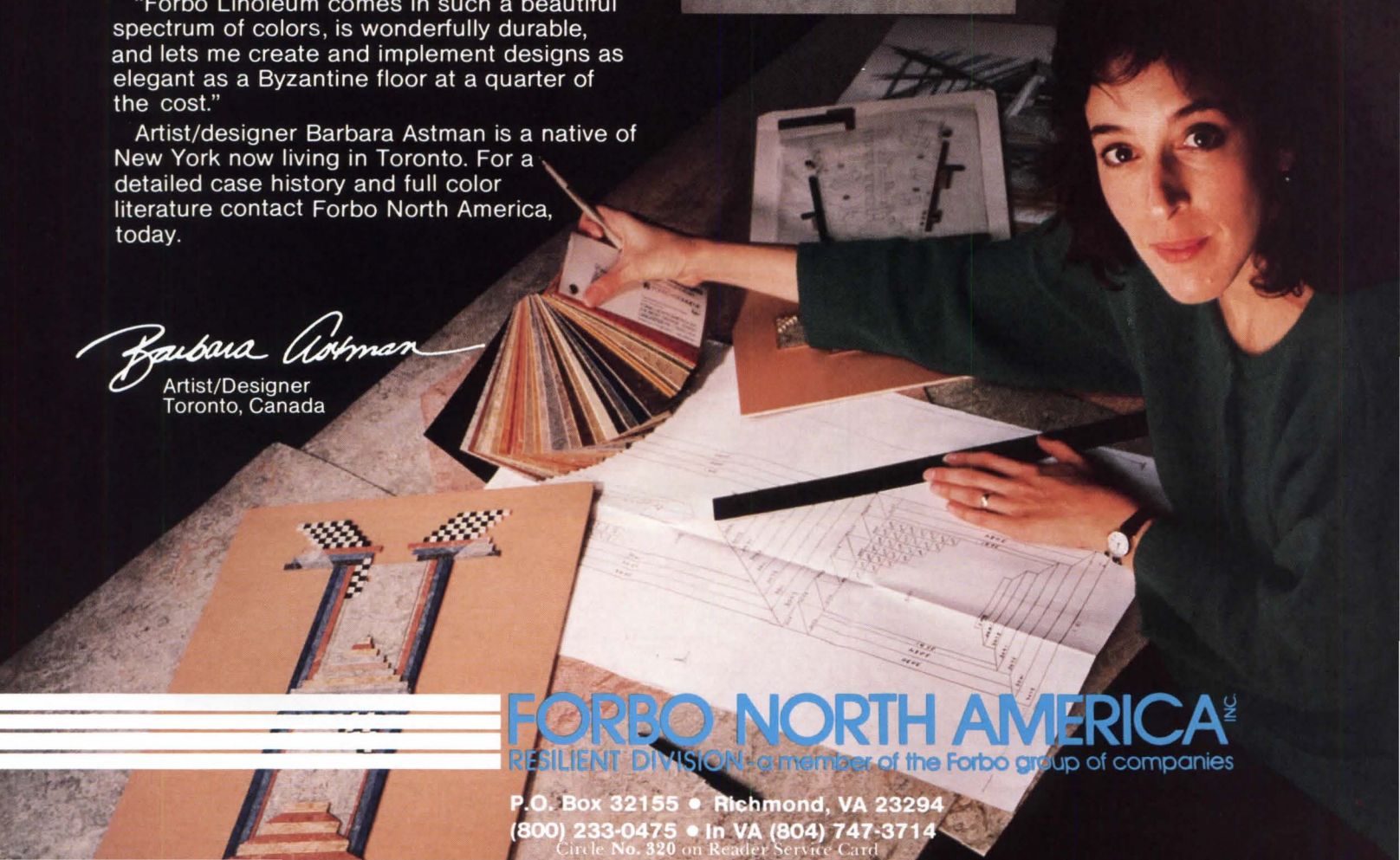
"An historic building like the Olympic Oval demands a bold and heroic entrance—to enhance the excitement of the Winter Games, to create a legacy for the people of Calgary long after the games have ended.

"Forbo Linoleum comes in such a beautiful spectrum of colors, is wonderfully durable, and lets me create and implement designs as elegant as a Byzantine floor at a quarter of the cost."

Artist/designer Barbara Astman is a native of New York now living in Toronto. For a detailed case history and full color literature contact Forbo North America, today.

Barbara Astman

Artist/Designer
Toronto, Canada



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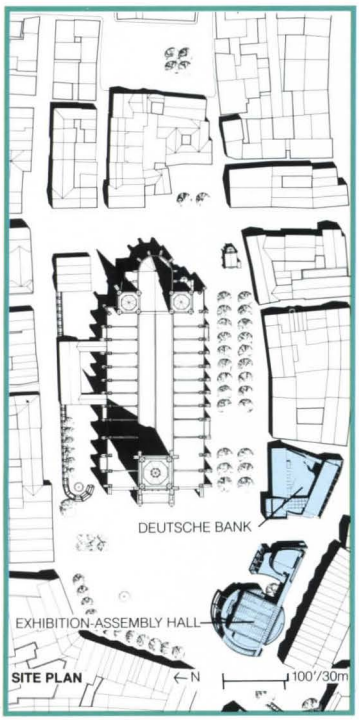
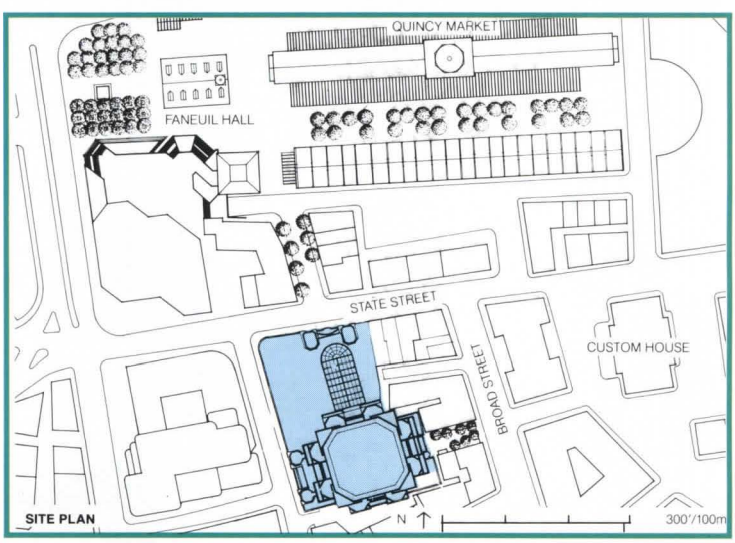
In Progress

Three urban projects, designed for downtown sites from Ulm, West Germany, to Minneapolis, illustrate a range of approaches to context, from contrast to accommodation.

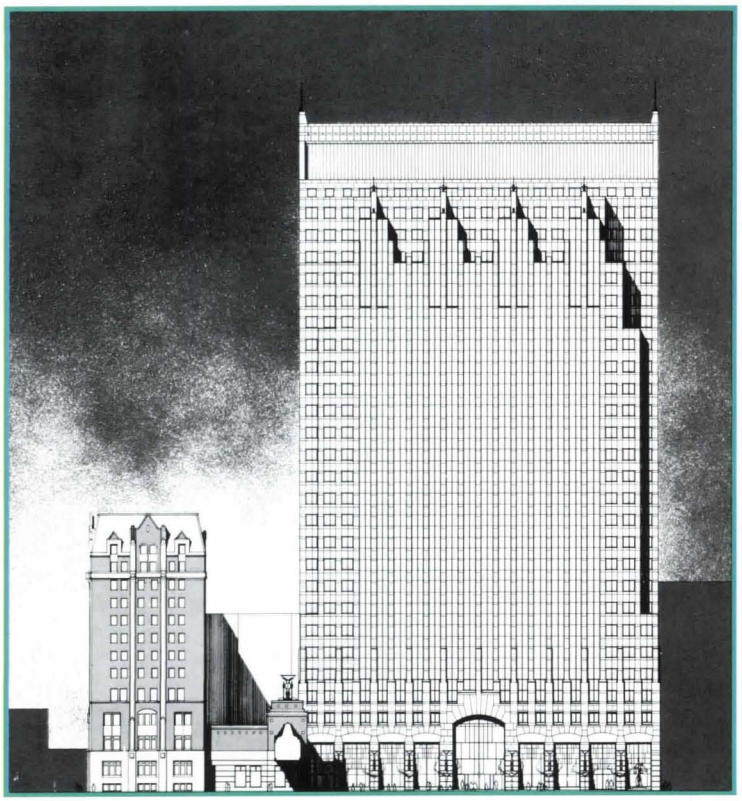


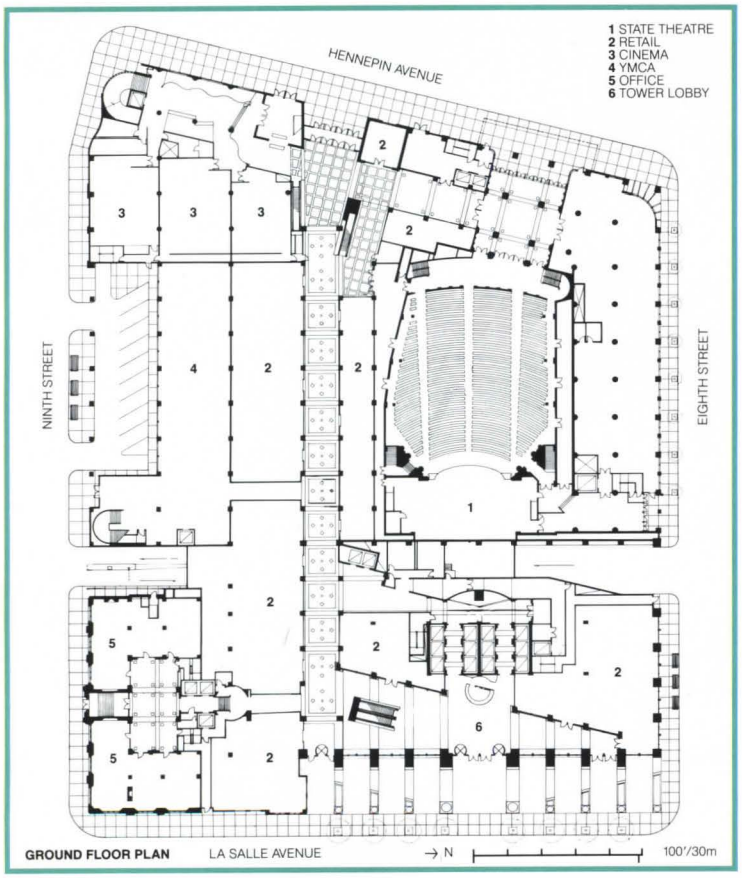
© Wolfgang Hoyt/ESTO

Exhibition-Assembly Hall, Munsterplatz, Ulm, West Germany. *Architect: Richard Meier & Associates, New York.* Located in Ulm's Cathedral Square, this 40,000-square-foot stone and stucco building will function as a public exhibition hall and a meeting place for the City Assembly and other groups. The square itself will be redesigned as two related elements: a secular entryway into the Cathedral and a more pedestrian plaza formed by a double row of newly planted sycamore trees. A 35,000-square-foot addition to the neighboring Deutsche Bank Headquarters is also proposed to the southeast of the assembly hall. Construction begins Spring 1989.



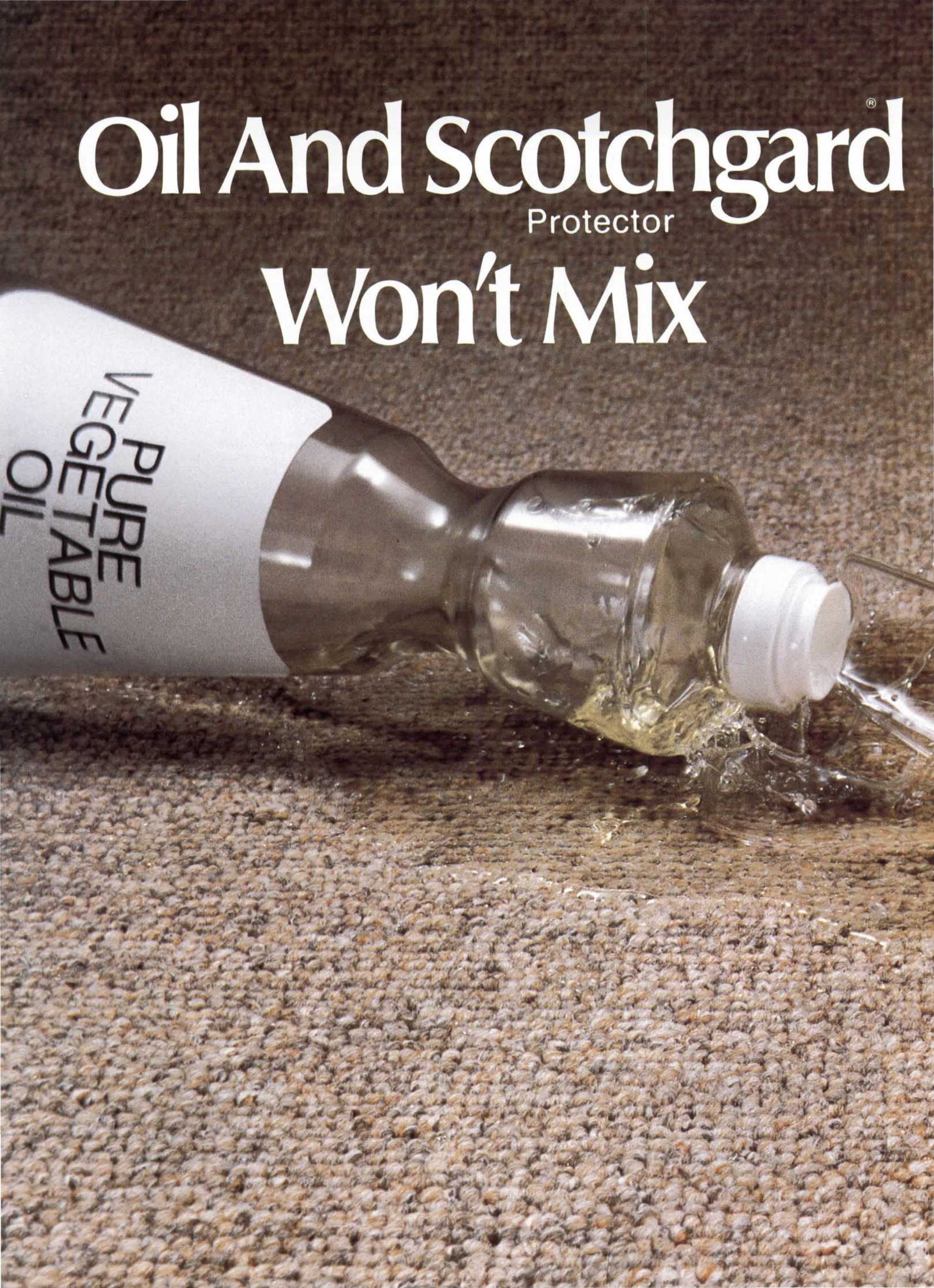
75 State Street, Boston. *Architects: Graham Gund Associates, Cambridge, and Skidmore, Owings & Merrill, Chicago.* This 715,000-square-foot mixed-use complex will be clad in five different types of granite—with polished or flame finishes—supported on steel trusses. The 31-story, set-back office tower rests atop 40,000 square feet of street-level retail space rendered in red and gray-beige granite. The main entrance leads to a six-story courtyard atrium and grand hall clad in five different marbles, wood, and bronze. A skylight of fritted glass reflects the evening uplighting. Acting as symbolic gateways, two smaller, stepped-back towers atop the base mimic the office tower. Chevrons wrapped in 35,000 square feet of gold leaf decorate the top of the towers and the octagonal penthouse level. The project's elaborate ornamentation is intended to complement surrounding older buildings without copying their styles. Completion is scheduled for Fall 1988.





GROUND FLOOR PLAN

LaSalle Plaza, Minneapolis. *Architects: Ellerbe Associates, Minneapolis.* Plans for this $130 million mixed-use, full-block project integrate two historic structures—the 1915 Collegiate-Gothic-style YMCA on the southeast corner and, diagonally opposite, the 1919 Italian-Renaissance-style State Theatre. A two-story, 70,000-square-foot retail arcade connects the various elements: a 28-story, 600,000-square-foot office tower, the 45,000-square-foot MacPhail Center for the Arts, 24,000 square feet of stacked cinemas, and a new 100,000-square-foot YMCA, which replaces the existing facility, and a public plaza. Construction of the brick-and-limestone structure begins soon.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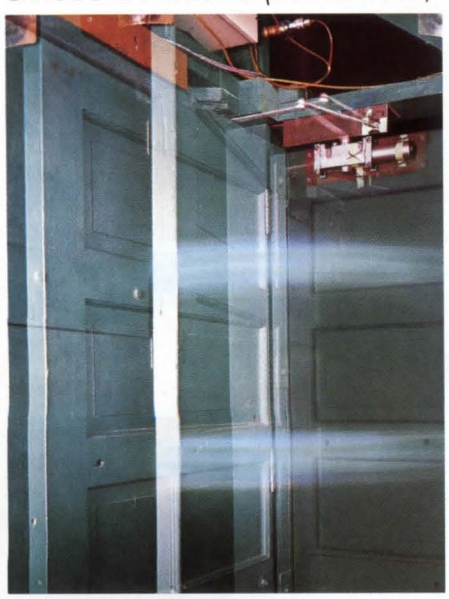

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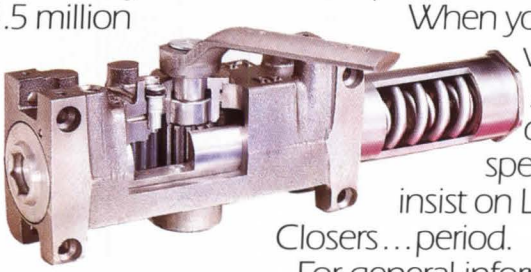

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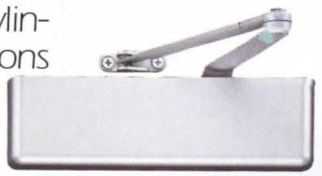
In Canada, Ingersoll-Rand Door Hardware, Mississauga, Ontario LE5-1E4; (416) 278-6128.



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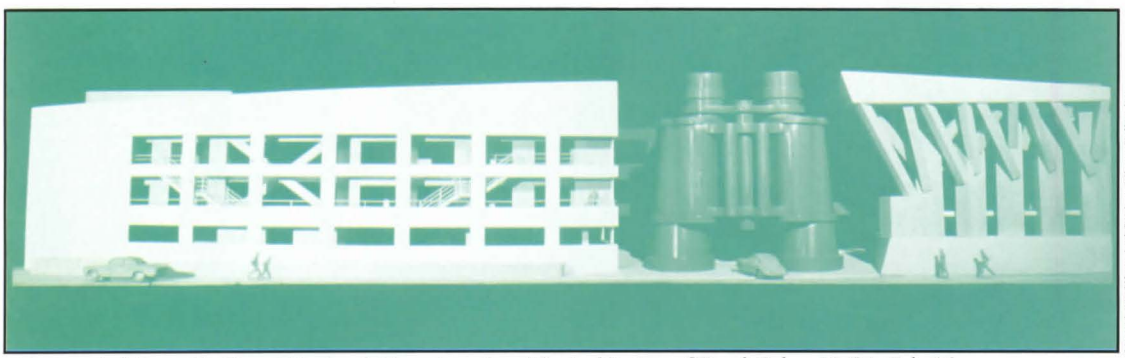
P/A Calendar



San Diego Historical Society-Ticor Collection

Chiat-Day building with Claes Oldenburg's binoculars, from The Architecture of Frank Gehry, MoCA, Feb. 16.

Exhibitions

Through February 26
Rem Koolhaas/Office of Metropolitan Architecture. Max Protetch Gallery, New York.

Through February 28
Long Island Modern: The First Generation of Modernist Architecture on Long Island, 1925–1960. Octagon Museum, Washington, D.C. (See P/A, Nov. 1987, p. 25.)

Through February 28
The Art that is Life: The Arts and Crafts Movement in America 1875–1920. The Detroit Institute of Fine Arts, Detroit. (See P/A, May 1987, p. 32.)

Through March 5
What Could Have Been: Unbuilt Architecture of the 80's. Archi-Center, Chicago.

Through March 6
Otto Wagner: Drawings. Museum of Art, University of Oregon, Eugene, Ore.

Through March 6
Vienna/New York, the Work of Joseph Urban, 1872–1933. Cooper-Hewitt, New York. (See P/A, Jan. 1988, p. 28).

Through March 24
Frank Lloyd Wright and the Johnson Wax Buildings: Creating a Corporate Cathedral. Los Angeles Municipal Art Gallery, Los Angeles. Also, **April 23–June 19,** Walker Art Center, Minneapolis, Minn. (See P/A, April 1986, p. 27.)

Through May 1
Architectural Elements of the Pacific Islands. Brooklyn Museum, Brooklyn, N.Y.

Through August 31
Sheet Metal Craftsmanship: Progress in Building. National Building Museum, Washington, D.C.

February 16–May 18
The Architecture of Frank Gehry. Museum of Contemporary Art, Los Angeles. (See P/A, Nov. 1986, p. 26.)

February 23–May 15
Versailles: The View from Sweden, Drawings from the Nationalmuseum and the Royal Palace, Stockholm. Cooper-Hewitt, New York.

February 24–April 6
Firing the Imagination: Artists & Architects Use Clay. Urban Center, Municipal Art Society, New York.

Competitions

February 27
Submission deadline, Hypotheses: Architectural League of New York, Young Architects' Forum. Contact Anne Rieselbach, Architectural League of New York, 457 Madison Avenue, New York, N.Y. 10022 (212) 753-1722.

March 1
Entry deadline, AIA Photography Competition. Contact St. Louis Chapter, AIA, 911 Washington Blvd., Suite 225, St. Louis, Mo. 63101-1203 (314) 621-3484.

March 1
Registration deadline, 1988 Du Pont-Hypalon Architects Contest. Submission binders due **April 18.** Contact Diane O'Leary, Du Pont-Hypalon contest, Du Pont Co., Suite 300, 150 Monument Rd., Bala Cynwyd, Pa. 19004 (302) 774-0551.

March 1
Submission deadline, Expressions At Work, for resilient flooring installations, sponsored by Tarkett. Contact Competition Coordinator, Gray & Rogers, 1234 Market Street, Philadelphia, Pa. 19107.

March 4
Submission deadline, Sixth Annual Du Pont Carpet Fibers Antron Design Award. Contact External Affairs Department, Du Pont Company, Wilmington, Del. 19898 or Sue Bloomberg, Burston-Marsteller (212) 614-5031.

March 15
Entry deadline, AIA 1988 Health Facilities Review. Submissions due **April 15.** Contact Mike Cohn, Architecture for Health Committee, AIA, 1735 New York Ave., N.W., Washington, D.C. 20006 (202) 626-7366.

March 22
Submission deadline, City-Gates Arts Competition. Contact Public Arts Administration, City of San Diego, Conference Building, Room 10, Balboa Park, San Diego, Calif. 92101 (619) 696-1608.

March 31
Entry deadline, Pittsburgh Corning Corporation competition recognizing designs using glass block. Contact James H. Coleman, Manager Marketing and Communications, Pittsburgh Corning Corp., 800 Presque Isle Dr., Pittsburgh, Pa. 15239 (412) 327-6100.

Conferences

March 1–3
Restaurant Hotel International Design Exposition and Conference, Merchandise Mart, Chicago. Contact National Expositions, 49 W. 38th St., Suite 12A, New York, N.Y. 10018 (212) 391-9111.

March 8–12
Fourth International Making Cities Livable Conference, Charleston, S.C. Contact Phoebe Miller, Center for Urban Well Being, City of Charleston, P.O. Box 304, Charleston, S.C. 29402 (803) 724-7400.

March 12–15
WorldStore '88 Conference and Exhibition, Atlanta, addressing retail store planning, interior design, and visual display. Contact National Expositions, 49 W. 38th St., Suite 12A, New York, N.Y. 10018 (212) 391-9111.

March 23–25
WESTWEEK®, Pacific Design Center, Los Angeles. Contact Communications Dept., PDC, 8687 Melrose Blvd., Los Angeles, Calif. 90069 (213) 657-0800.

March 24–27
Preserving Wright's Heritage: 1988 Frank Lloyd Wright Symposium & Festival, Domino's Farms and the University of Michigan Campus, Ann Arbor, Mich. Contact University of Michigan Extension Service, Conference and Institutes, 200 Hill Street, Ann Arbor, Mich. 48104 (313) 764-5305.

April 13–15
Lighting World International, Los Angeles Convention Center. Contact National Expositions Co., 49 West 38th Street, Suite 12A. New York, N.Y. 10018 (212) 391-9111.

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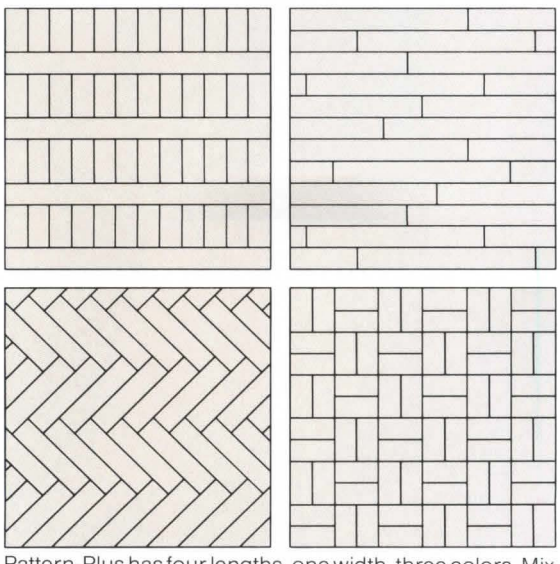

Pattern-Plus has four lengths, one width, three colors. Mix or match to create thousands of designs.

Phoenix Ballroom, The Orangery Restaurant, Knoxville, TN

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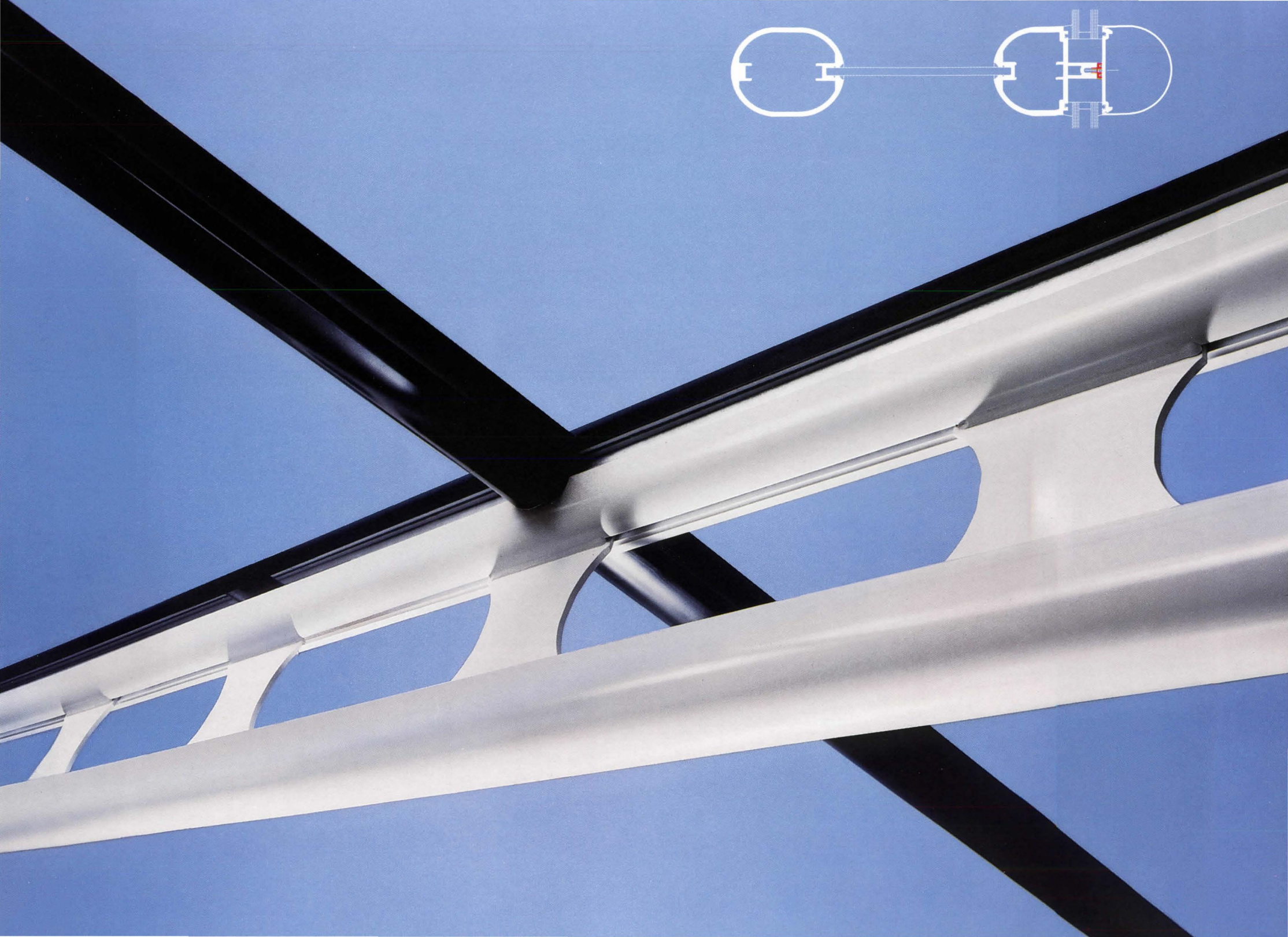

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On the inside, Trusswall offers a customization limited only to the imagination. The two-piece construction allows the exterior finish to mix or mate with the building exterior while the interior chords can complement the interior attitudes. The color palette of Fluropon® finishes suggests even more design alternatives.

With four web options to choose from, design flexibility increases. The choices are offered. The choices are yours.

But while the design options offer flexibility, the integrity of the structure remains inflexible. A thermal break, and the flexibility of either ¼" or 1" glass attest to Trusswall being ready and willing to take on nature's harshest elements.

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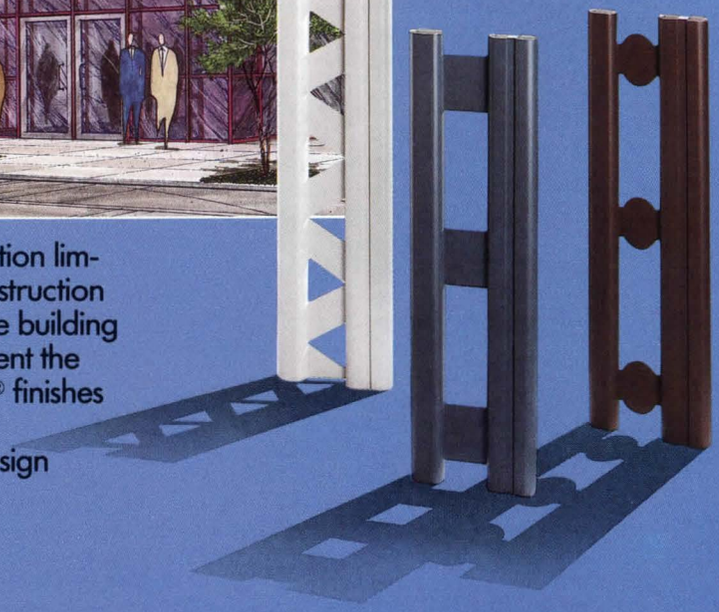

For product information on Trusswall contact:
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Specifications *(continued from p. 51)*
The supplementary general conditions are careful to call for guarantees of not less than one year, but the consultant's section specifically asks for (only) one year, thereby limiting what might have otherwise been appropriate to the situation, available from the manufacturer, or standard under the state's fraud statute; temporary electricity is specified to be the electrical subcontractor's responsibility when it has already been established that the general contractor will provide it; the procedure for shop drawing submittal and approval established in Division 1 is not followed in the contributed sections, each of which has its own preferred (and different) system. Most such issues are handled in Part 1 of the sections where coordination arrangements are generally found.

The fourth area to be examined is the use of materials. In addition to checking that three manufacturers are specified for each item where required by law for public work, there is still the more significant professional concern that the material specified is the right material for the intended use. Verifying this requires substantial knowledge, not only about the building and its construction, but also about the materials themselves and what they do best or not well at all. CSI's SpecData sheets, which form the basis for many enlightened manufacturers' product data submissions, are most useful in this respect, in that they require a listing of the limitations of the materials as well as their positive characteristics.

A good test of the specifier's grasp of such issues is the section on sealants, which may deal with a number of situations in the building, from nonmoving to expansion-type joints. The sealant specified for floors and decks should be different from that used on walls; the sealant around window frames may not be the same one used at expansion joints. Checking the materials specified in such major categories is important in satisfying one's self that the level of knowledge and judgment behind the project manual in question has been adequate to the task.

Of course, if the project is to be bid, the bidding arrangements have to be looked at also. Public work should certainly conform to the statutes that regulate it; some jurisdictions have even prescribed bid forms that must be used. Research into other public projects bid under the same circumstances will prove helpful here.

Private work also presents problems in making clear the rules under which bids are to be submitted. Do the documents tell bidders exactly where and when to turn in their proposals? Does the bid form have spaces for all the required answers (addenda, allowances, alternates, unit prices) and a place for the date and a signature? How do bidders get extra copies of documents and what deposits and bonds are required?

Even though checking a project manual for adequacy in all these areas requires concentration and knowledge, it is still somewhat easier and less time-consuming than actually preparing the document. But it's a different process, too, just as analyzing a structure is different in approach from designing one. Both are functions that architects are sometimes required to perform and both have their own methods as well as attendant professional responsibilities. Except in the case of principals checking work done under their supervision, reviewing a project manual by others should not be viewed as guaranteeing its adequacy or correctness. That professional responsibility for the most part still properly belongs to those who originally created the document.

Walter Rosenfeld ■

The author is an architect and specifications consultant in Newton, Mass.

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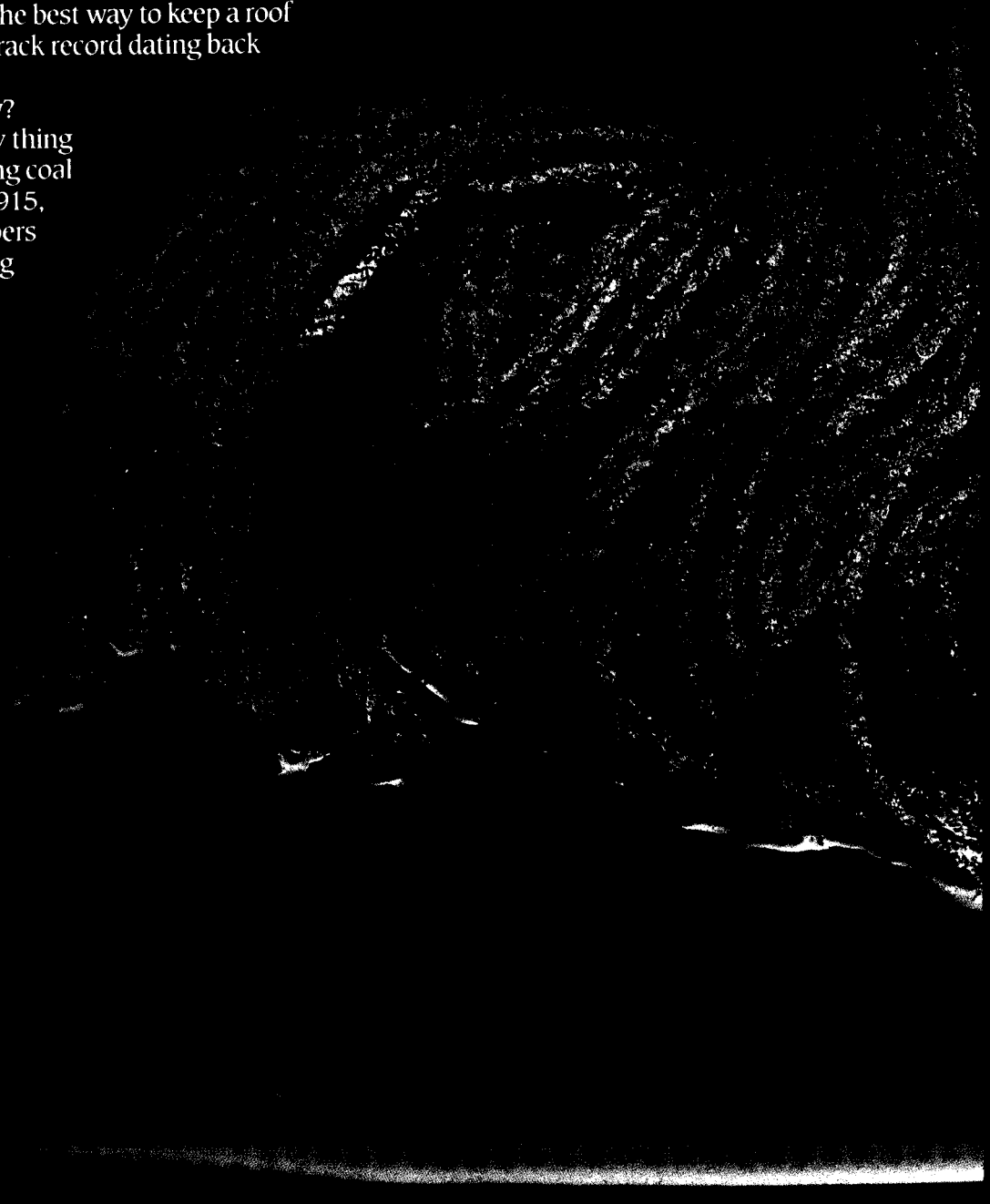
Actually, the only thing noteworthy about using coal tar on a roof back in 1915, was the fact that Koppers had entered the roofing business. To *stay.*

And Koppers would perfect a *system* for applying a built-up roof. To stay.

A system that is still head and shoulders above the rest.



Koppers Coal Tar Bitumen

The operative word here is "Koppers."

Over the years, we've perfected a blend of highly refined coal tar to produce a superior roofing and waterproofing bitumen. Superior to all others.

Its tight, cohesive molecular structure gives Koppers Coal Tar Bitumen some very special properties.

Properties that allow it to survive torrential downpours, heavy snows, ice, freeze-thaw cycles that would make other roofing materials shudder. Temperatures that dip far below zero, then soar beyond 90° Fahrenheit.

And Koppers Coal Tar Bitumen actually has the ability to heal itself, with "cold flow" properties that automatically repair hairline cracks before they cause damage.

Koppers Coal Tar Bitumen Built-Up Roofing And Waterproofing Systems

Every bit as important as the *bitumen,* is the *system.* We engineer a roof a layer at a time. To build up a membrane that is waterproof. Weatherproof. Foolproof. A membrane, that if installed properly, will remain serviceable and maintainable for decades. Without major repairs.

Low initial care and a simple preventive maintenance program can add years of roof life. That translates into major dollar savings over the life of the roof.

It's simple. The ultimate roof will actually cost *less* over the long haul.

Koppers Coal Tar Bitumen BUR Systems are engineered for level or low-sloped roofs. They are *the* solution where quality and long service life are important. In both new or re-roof situations.

If you're concerned with energy savings, and an insulated roof system is part of the plan, Koppers has engineered a system that tops them all. A roof that will retain an 8.3 R-value for at least 20 years. Koppers Rx Phenolic Insulation. Topped off with a Koppers Coal Tar Bitumen BUR System, of course.

Remember. The operative word here is "Koppers."

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Progressive Architecture

Portland on Stage

A new performing arts complex in Portland, Oregon, designed by three known firms in joint venture, responds to numerous programmatic and neighborhood influences, creating a lively if eclectic environment for entertainment.

At night, the corner of Broadway and Main comes alive.

P/A Awards Update
Center for the Performing Arts, Portland, Oregon

WHILE it has always taken pride in its arts scene, until last August Portland had lacked a real center for the performing arts. By passing a $19 million city bond issue in 1981, citizens had made it clear that they wanted that situation rectified. The architectural joint venture selected to carry out the project included three firms known for a combined experience with various kinds of theater and performance hall design: Broome, Oringdulph, O'Toole, Rudolf, Boles & Associates (BOOR/A), Portland; The ELS Design Group (now ELS/Elbasani & Logan), Berkeley, California; and Barton Myers Associates, Toronto (now Los Angeles). Since each of the three firms has been justly proud of its design accomplishments, each had a design leader who became a team member in directing the project: Robert Oringdulph, Donn Logan, and Barton Myers, respectively. In collaboration, they worked out a design approach that they felt would respond to the numerous neighborhood cues, some positive and others inhibiting. The ensuing design won an Award in 1984 in the P/A Awards program (P/A, Jan. 1984, p. 92).

First on the list of opportunity/challenges was the complete restoration of Rapp & Rapp's Paramount Theatre, built as a movie and vaudeville palace in 1929—appropriately enough on Broadway. In Portland's somewhat seedy downtown theater district, the old theater had been saved from demolition in 1971 by a public outcry and the city's subsequent designation of it as a historic landmark. By 1974, when it was listed on the National Register of Historic Places, the hall was leased for rock concerts and closed-circuit TV events. It was to become the Arlene Schnitzer Concert Hall, home of the Oregon Symphony.

One of the next challenges was to build a new set of facilities to include two theaters and support areas on the block adjoining the older theater. The new theaters face Schnitzer Hall across a new one-block brick-paved Main Street mall. The site containing the new part of the center is L-shaped, sharing one quarter of the block with the historic First Congregational Church. The church and the west façades of the new theater and the Schnitzer address the sedate, underpopulated park blocks along Park Avenue.

Work on the design was begun in April 1982 when the architectural team was selected, to be joined by acoustician R. Lawrence Kirkegaard of Chicago and theater consultants Theatre Projects, Ltd., of London. The renovation work on the Paramount started in September 1983, and the facility was opened in September 1984. Construction of the new portion began in April 1985 and it opened in August, 1987.

Schnitzer Hall

Under the leadership of Donn Logan of ELS and Robert Oringdulph of BOOR/A, and with substantial contributions by Portlanders Arlene and Harold Schnitzer, the old Paramount has been carefully restored for use by the symphony and for a variety of performances, including classical, jazz, rock, folk, and gospel music, as well as dance, theater, travel films, and conferences. The $10-million renovation included the repair, recasting, or replacing of most of the interior splendor, and the cleaning and general salvaging of the Rococo Revival building, bringing it up to acceptable code and comfort levels.

Seating for the orchestra and balcony levels is 2776, viewing a 94′ x 32′ stage with a 54′ x 32′ traditional proscenium. Orchestra accommodations allow for 15 musicians, and dressing rooms can host 90 performers. The stage has been equipped with a portable and adjustable acoustical shell. Original lobby chandeliers have been repaired and refitted with new crystal. New wool carpeting designed in Portland was loomed in New Zealand, and the old dark gold, green, and rose color scheme has been replaced by "warm neutrals and teal" in the lobby and auditorium.

The Main Street Mall

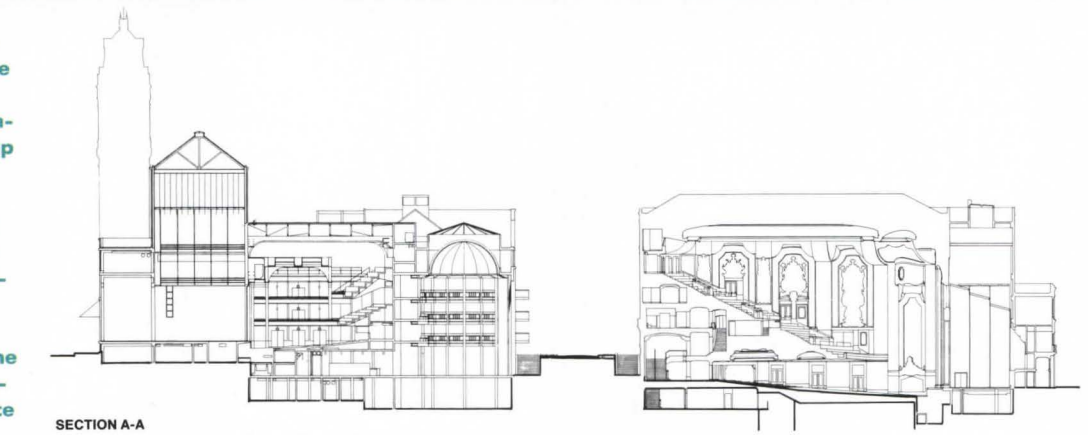
Because the city has been reluctant to close Main Street entirely between Park Avenue and Broadway, the mall is still a somewhat tenuous celebration. Open for traffic by day, the street is paved in a herringbone pattern brick that recalls both Schnitzer Hall and the new theaters, and provides the intended visual link between the two. Closed at one end at 6:30 P.M. the mall becomes a more realistic, but

From Broadway (top), the glassy stair tower makes the corner transition from the more open and playful Main Street mall façade to the more stern east side. Projections help to ease this theater district face, but the building takes on a different personality here and on the south side which, because it is the backstage area, is more restricted. On the west, along Park Avenue (above), both the renovated Paramount and the new facility enjoy a parklike setting quite different from Broadway's. In contrast, the mall façade (facing page) is a lively extension of the theater it introduces. The gates that close Main street at 6:30 are highlighted by two spirited light towers designed by BOOR/A. Pediment on the intermediate theater (foreground) is freestanding and pierced to reveal a drum above the lobby on which is mounted a glass dome (page 62). The cornice of the smaller theater (background) engages the roof of the unfinished rehearsal hall. Balconies project from lobby areas so that people can get fresh air during intermissions.

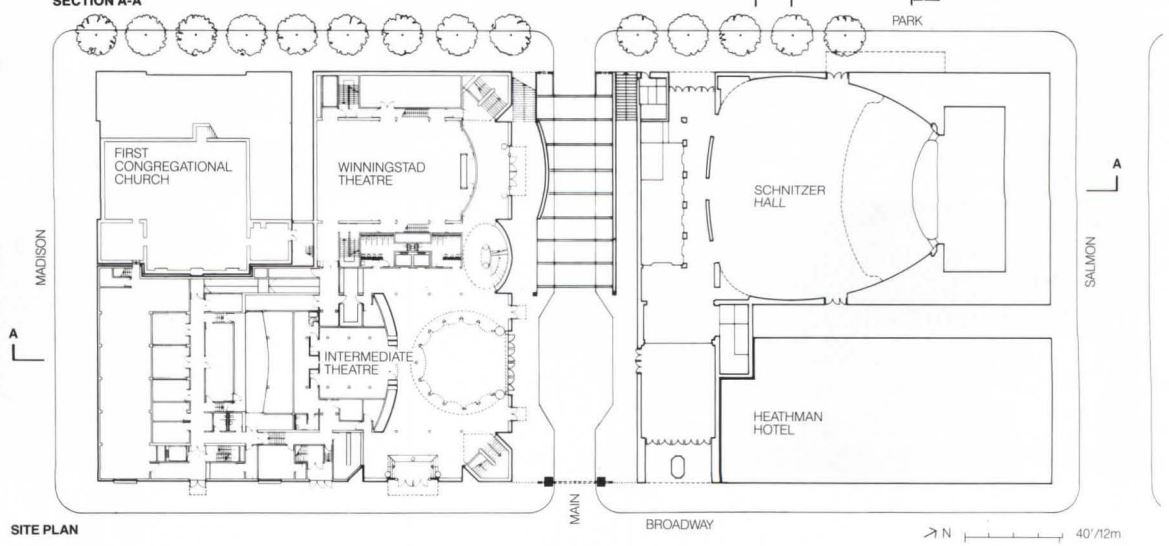

SW Broadway

Strode Eckert

The architects' referential intention is evident in the view from the blocks along Park Avenue (above), where cues from the Congregational Church are picked up and abstracted. As on the mall side, the lobby entrance on the west façade (facing page, lower photo) is accented by a column-supported balcony. Glazed four-square openings over each entrance will serve the rehearsal hall when it is finished. Part of the theater district signage, the marquee over the Broadway entrance to the existing theater (facing page, top), has been preserved, and it frames the entrance to the Main Street mall.



SECTION A-A



SITE PLAN

Strode Eckert

still tentative, link. It is still open to the west and unavailable for planting that in any way suggests a garden.

The closure on the east end is highlighted by two festive gate towers in painted and stainless steel. These delightful neon-accented, Deco-ish structures, designed by BOOR/A, stand 27 feet high, and include street lights and traffic signals. The towers and gates add an upbeat note to the mall and the theater entrances at night—when the new complex is definitely at its best—announcing the "in" place to be for entertainment.

The New Theaters

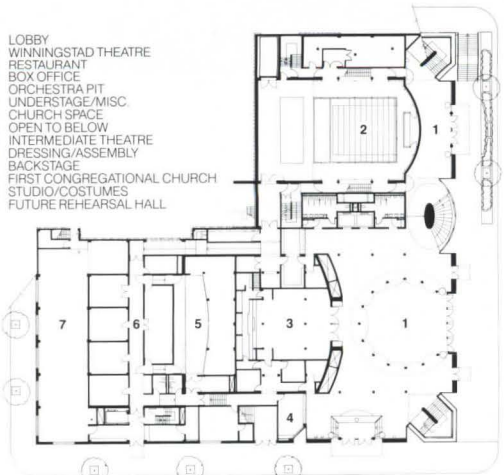
With their main lobby entrance off Main Street, the new theaters are appropriately oriented to the north, and the building housing them is the most animated on that side. The pedimented façades, honestly expressed as structurally unattached elements, reflect the roof shapes of the adjacent church. Brick colors of the accented planes that some local critics have called walls 'with measles' were chosen to blend with the renovated Paramount and the nearby Heathman Hotel. Transparent corner and center stair projections and entrance glazing combine, again, with night interior lighting and rows of 7-watt bulbs on the stairs, to dematerialize the façade into a sparkling curtain containing or inviting enthusiastic crowds. The whole effect is theatrical and fun, even if the rows-of-bulbs school has been overdone everywhere; the effect does not particularly flatter the jogs of the stairs at the corners.

On the Broadway side, visitors get to see mostly the business end of the complex, and if the building was intended to appeal to the aspirations of the theater district, the effort was lost. It conveys only business southward beyond the corner. The same is true of the Madison Street side, in an increasingly severe vocabulary. Toward the park blocks on the west, the building begins to regain its exuberance, but is kept restrained out of respect to tree-lined Park Avenue. From the pedimented west entry to the corner tower, the façade does seem in spirit to edge toward the Main Street mall.

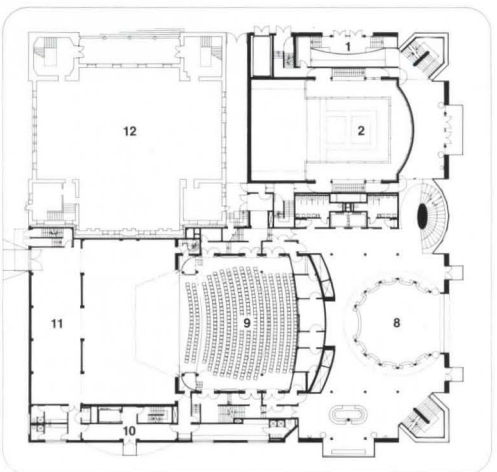
Just inside the main entrance, a five-level foyer and intermission atrium takes center stage. The literal high point in the space is five levels up, an inspired glass dome by artist James Carpenter. Its floating blue slices are installed by means of an ingenious mounting system designed to allow the glass freedom to move, even under seismic disturbance (see next month's P/A Technics article on Carpenter). A terrazzo floor anchors the space, which is ringed by a series of circulation tiers, the accepted way of seeing and being seen at theater intermissions. The rotunda faces of these viewing posts, as well as the theater walls outside their diameter, are surfaced in cherry wood panels. Given the ceremony of the lobby space, however, the panels ringing the rotunda do not lend much enthusiasm to the celebration.

Inside the Intermediate Theater, however, another mood properly sets in. Seating 916 in an Edwardian-style space, the theater features orchestra and balcony seating, the farthest of which is an intimate

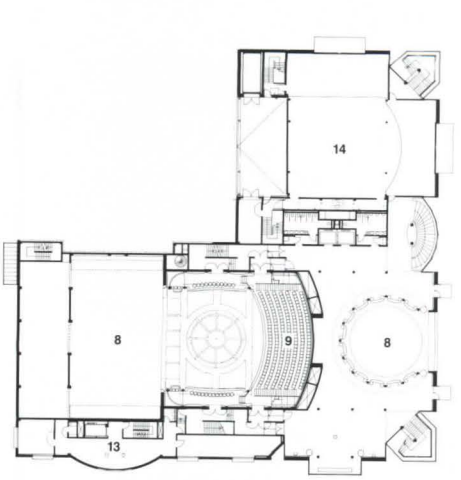
1 LOBBY
2 WINNINGSTAD THEATRE
3 RESTAURANT
4 BOX OFFICE
5 ORCHESTRA PIT
6 UNDERSTAGE/MISC.
7 CHURCH SPACE
8 OPEN TO BELOW
9 INTERMEDIATE THEATRE
10 DRESSING/ASSEMBLY
11 BACKSTAGE
12 FIRST CONGREGATIONAL CHURCH
13 STUDIO/COSTUMES
14 FUTURE REHEARSAL HALL



FIRST FLOOR PLAN



SECOND FLOOR PLAN



FOURTH FLOOR PLAN

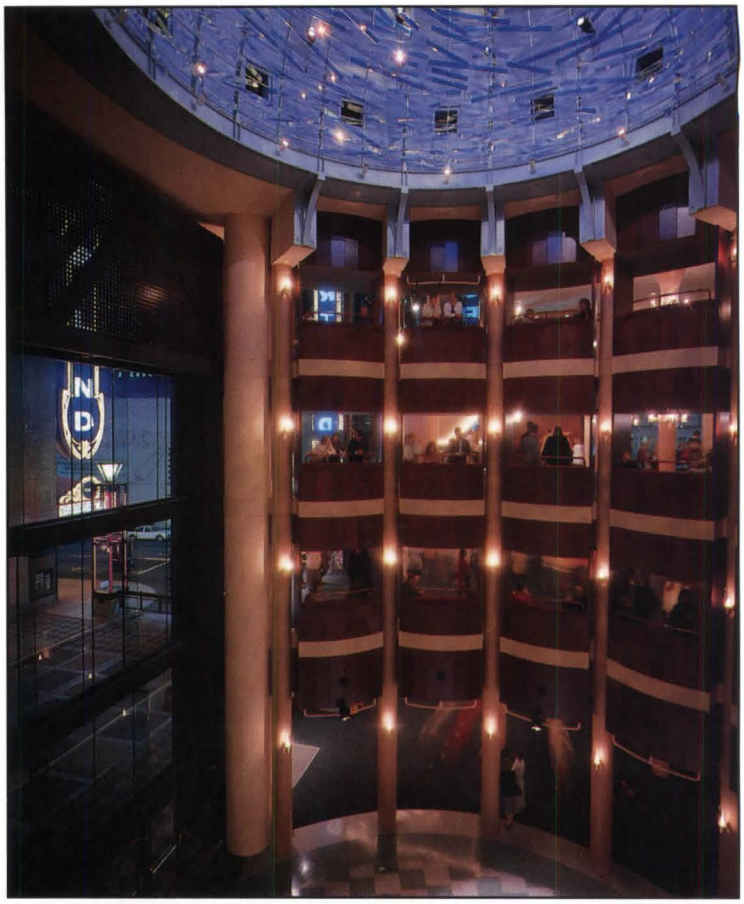
N 40'/12m

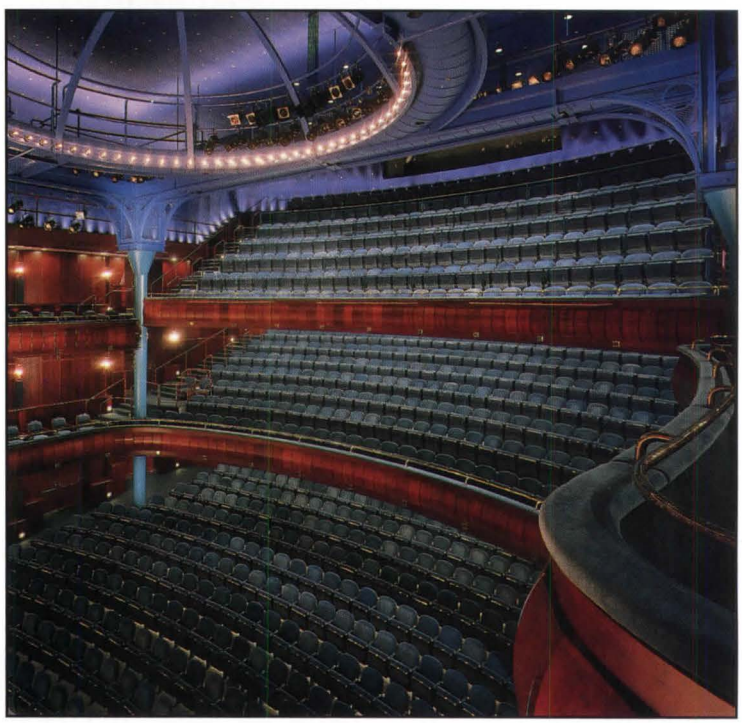
65 feet from the stage. There is an orchestra pit for 35 musicians which can be raised to form 40 additional seats, or to extend the stage 12 feet beyond the 54′ x 32′ proscenium arch. Like Schnitzer Hall, it has a portable acoustic shell for adjustment to orchestra, chamber music, or choral arrangements. Side balconies and voluptuous boxes faced in cherry proceed forward to the proscenium; a fanciful steel frame outlines a "room within a room" over the audience, with a domed "sky" of blue, studded with brass "stars." Brass balcony railings accent a blue and blue-green color palette.

In the Winningstad Showcase Theatre, a "black box" theater is rendered in red. Dolores and Norman Winningstad, long supporters of cultural growth in Portland, are the major sponsors of this facility. With a maximum capacity of 368, the theater is patterned after a Shakespearean courtyard model, and is designed flexibly to accommodate drama, dinner theater, dance, chamber music, recitals, indoor markets, and many other activities. It has two balconies (8 and 16 feet above the stage) allowing rows of movable and fixed seating, dressing facilities for 28 performers, and an orchestra pit for 18 musicians. The 45′ x 25′ stage is augmented by the orchestra floor and forestage lift that can be raised to levels below and at stage, allowing for thrust, traverse, arena, and freeform staging. As required, seating can be completely removed. The bold red color of the wall surface of stained cedar lattice with acoustic red backdrop walls has, as could be expected, critics; but the mood of the space is really unique, and with lights down, little different from any other flexible theater.

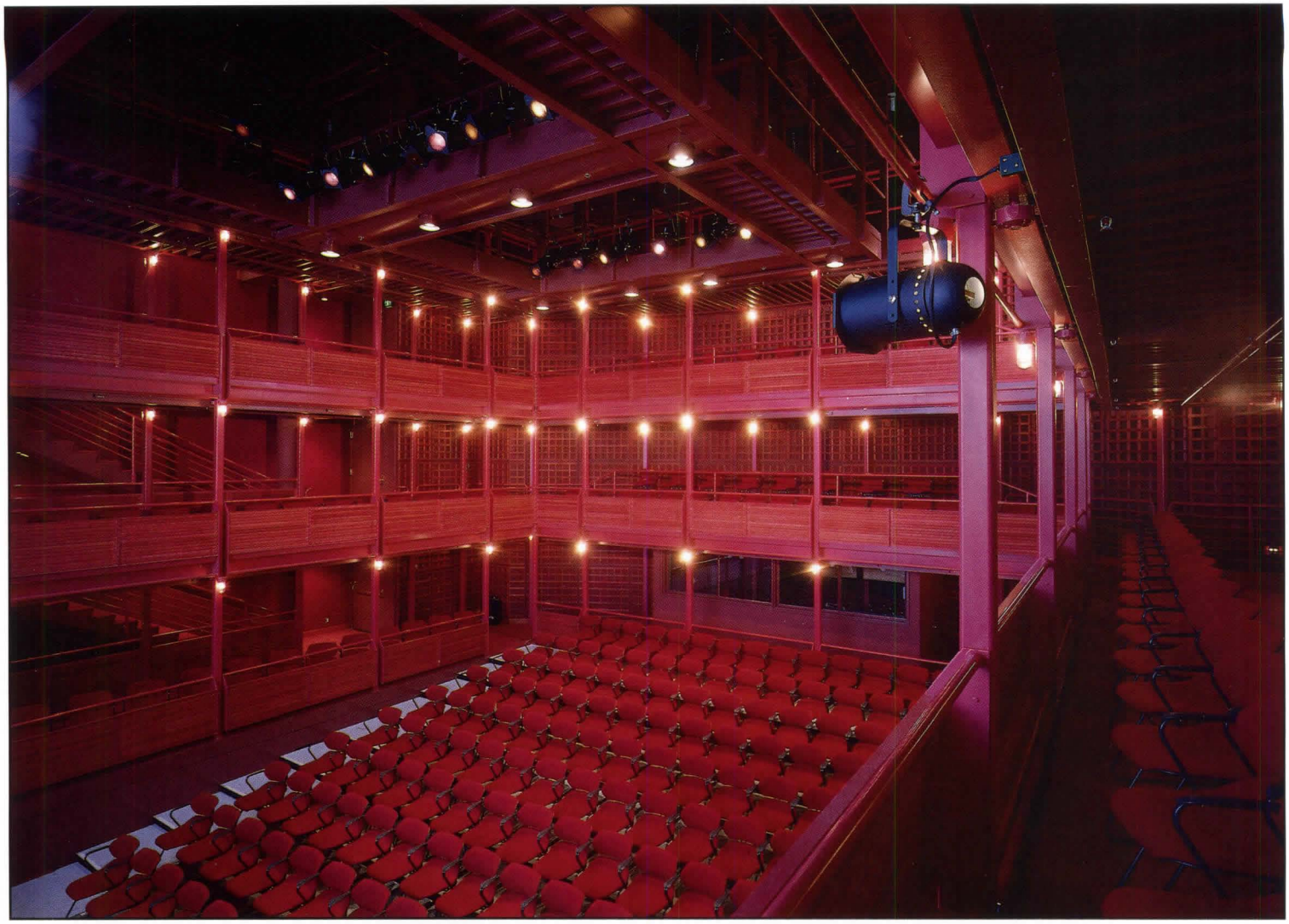
The Complex

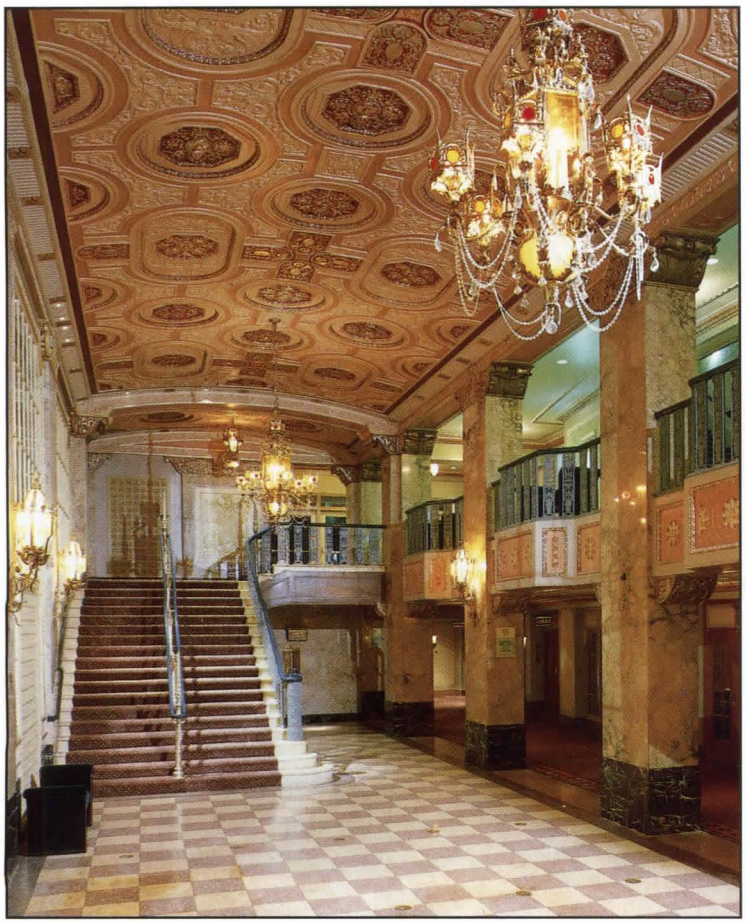
Without doubt, the combination of three design-oriented firms in joint venture to design the new center contributed to the eclectic end result. However, since there is really no single "Portland style," and because the city exudes a friendly openness, this eclecticism seems somehow in keeping. The problems posed by the Center's complex program, and the struggle to keep the new building sympathetic to its neighbors, obviously made the design challenge much more difficult. Any public building makes a prime target for critics at large; a building for any of the arts, by definition, is most frequented by a public with a highly developed artistic sensitivity. Playing to such an audience is a difficult role at best, but it would seem that the architectural team for the Portland Center for the Performing Arts knew their lines. The complex comes off as having the kind of vivacious urbanity worthy of a cultural citadel; it should carry off almost any kind of performance. ***Jim Murphy*** ■





Above the atrium in the lobby for the intermediate theater (top), a dome of coated glass by James Carpenter crowns tiers of balconies, traditional focal points for intermissions. Another dome, this one implied, tops the theater itself (above), under a blue ceiling with brass "stars." Columns with conical capitals leaf out into fanciful steel and mesh brackets under the ring of the dome (facing page) and, together with the plush wood balcony faces, join in lending a Victorian air to the hall.





Ed Hershberger

Project: *Portland Center for the Performing Arts, Portland, Oreg.*
Architects: *Broome, Oringdulph, O'Toole, Rudolf, Boles & Associates, Portland, Oreg.; ELS Design Group, Berkeley, Calif.; Barton Myers Associates, Toronto and Los Angeles (BOOR/A: Robert E. Oringdulph, Dennis J. O'Toole, Stanley G. Boles. ELS: Donn Logan, Kurt Schindler, Guillermo Rossello. BMA: Barton Myers, Thomas Payne, Chris Couse). Frank Berg, site architect for the joint venture.*
Original theater architects: *Rapp & Rapp, Chicago (1929).*
Client: *City of Portland, Performing Arts Center; Patrick Harrington, director.*
Site: *An existing theater (now a concert hall) occupies 30,000 square feet of a block in downtown Portland; the new part of the center occupies about the same area on an adjacent block.*
Program: *restoration of the 1928 Paramount Theatre into the 2776-seat Arlene Schnitzer Concert Hall, and provision for two new theaters; the smaller Winningstad Showcase Theatre seats 368, the larger Intermediate Theatre seats 916. Support facilities, lobby areas, box office, administration offices, members' lounge, restaurant, and unfinished rehearsal hall compose the remainder of the 127,000-sq-ft new structure.*
Structural system: *cast-in-place concrete, with steel and structural glazing systems at major openings.*
Major materials: *brick, steel, glass, exterior; brick, glass, steel and brass railings, terrazzo and carpeting, and a variety of fabrics and woods (see Building Materials, p. 156).*
Mechanical system: *gas-fired boiler, air distributed through four major air handlers.*
Consultants: *CH2M Hill, structural; C.W. Timmer Associates, mechanical; R. Lawrence Kirkegaard & Associates (Chicago), acoustical; Theatre Projects, Ltd. (London), theater consultant; Tina Beebe, color; McArthur/Gardner, landscape.*
General contractor: *Hoffman Construction Company.*
Costs: *$17,500,000, including sitework, landscaping, interior finishes and furnishings.*
Photos: *Timothy Hursley, except as noted.*

Dramatically red, the Winningstad Theater (facing page, top) provides a versatile space for various kinds of performances. Carefully restored lobbies (facing page, bottom) and theater (below) of the Schnitzer Concert Hall comprise the public spaces of the largest facility in the center complex. The hall seats an audience of 2776.

A Track Record

After its first eighteen months of service, Portland, Oregon's light rail transit system, with urban design, overpasses, and station design by Zimmer Gunsul Frasca, continues to surpass all expectations.

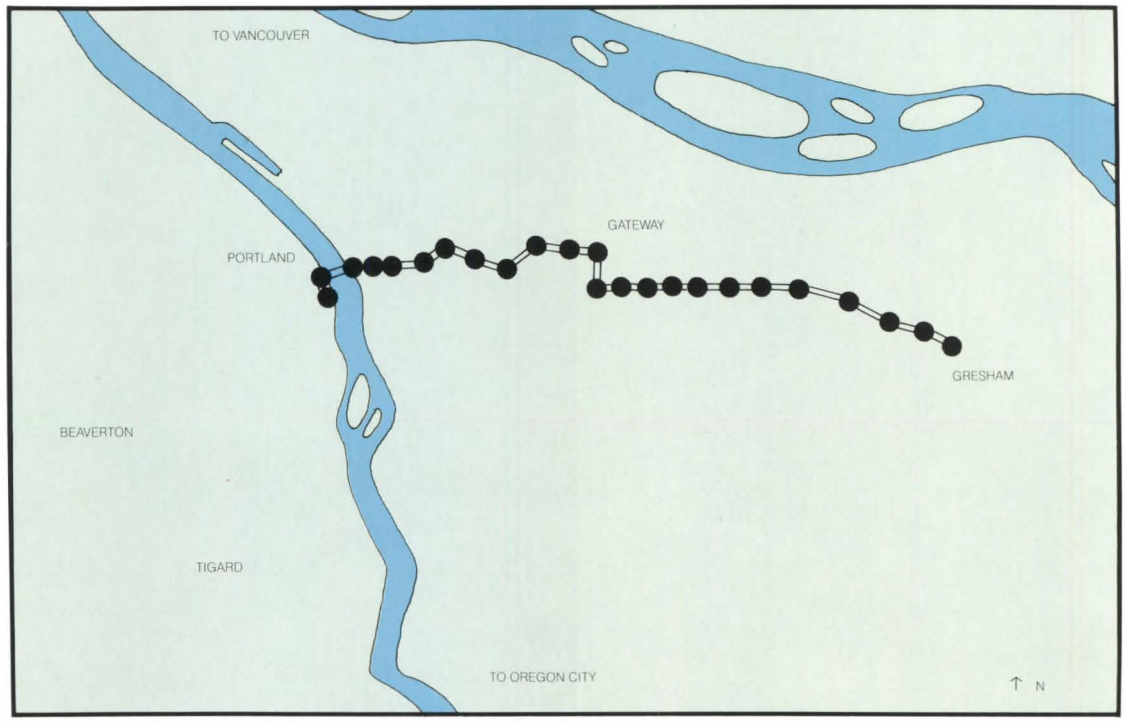


Diagram (below) of the 15-mile light rail corridor and the stops between downtown Portland and Gresham. The inbound segment of the downtown loop follows Morrison Street (facing page) from 1st Avenue west to the turnaround at 11th, returning down Yamhill, passing Pioneer Courthouse Square (columns, right background) on both legs. Brick pattern at the intersections is part of the urban design by ZGF.

PORTLAND is a paradox. In the face of an economy that is something short of robust, and despite the reputation of being more conservative in most things than its northern neighbor, Seattle, Portland continues to improve its lot in life. Its well-deserved reputation of livability and optimism is reinforced, it seems, at every turn. A prime example is the one-and-a-half-year-old light rail system serving downtown and the 15-mile corridor east to Gresham.

Winner of an Award in the P/A Awards program in 1984, the Banfield Light Rail Project was guided through many layers of design by the Zimmer Gunsul Frasca Partnership (ZGF) under the direction of principal Gregory Baldwin. The project is part of the overall transportation system in the area, the Tri-County Metropolitan Transportation District of Oregon, or Tri-Met. Called the Metropolitan Area Express (MAX), the part of the rail system completed is the first segment of an intended regional network.

Along the route, the system would pass through three jurisdictions—Portland, Multnomah County, and Gresham—and a number of quite varied environments. It was decided that the route would be connected to areas of indicated development, such as the Old Town and Skidmore Fountain sectors, the proposed Oregon Convention Center (another ZGF project), and Lloyd Center, on its way to the corridor to Gresham. One segment of the path would take advantage of the existing right-of-way paralleling the Banfield Freeway, the source of the name of the project.

Overall goals and strategies were established and market analyses were done as part of the process that generated urban design and project development standards. Finally, specific design particulars were evolved to address each of the many environments along the route. The complexity and scope of this project, therefore, is certainly beyond the normal architectural/urban design commission; it involved everything from policy decisions and regional planning to street hardware design, with all the steps in between.

While the obvious initial emphasis was to be an improved and expanded transit system, other goals were set for the project. It was also hoped that MAX would become a "focus for regional development on a neighborhood-by-neighborhood basis." While this is not an unusual side benefit to be wished for from a transit system, the designers were aware that in some of the neighborhoods along the intended corridor, development was not desirable and intrusion by the system had to be held to a minimum. To achieve this balance between growth and neighborhood preservation, the ZGF team deemed it "critical that every element associated with station operation be designed from a local perspective to fit with that which is or should be." Through extensive discussions in, and careful review of, the communities involved in this first leg of the system, the architects arrived at an approach and developed appropriate and somewhat standardized design elements. These include simple structures that embody a "civic" character, and are easy to maintain, durable, and inexpensive to construct.

In the downtown loop, a system of paving colors and textures was worked out for the route MAX would travel (drawing, p. 68), with red and dark


ZELL BROS
CARL GREVE
ONLY
125
Portland

gray brick accenting the stone block of the trackbed and the asphalt road paving. For the downtown shelters, black steel frames, glazed canopies, and brass accents form the vocabulary, with black and brass trash receptacles, steel tree grates, and black and brass traditional lampposts.

As the line moves across the Willamette to the Lloyd Center and beyond, the steel and glass shelters change to a gray-blue, but retain the same design. Along the Banfield Freeway, overpass bridges of concrete are made more monumental and formal with cast-in rustication, articulated stepped side rails on the stairs, and towerlike elements enclosing elevators. Here, the gray-blue of the shelter supports is combined with a light green on the box-ribbed roofs, and light green ornamental guardrails on the stairs and overpasses. Extra screening between the stairs and the freeway was added as an obvious and clumsy afterthought, without benefit of the architects' eye.

From this point east, small semienclosed structures are added to the shelters, reinforcing the civic/transit character of the stations in a very positive way. These little punctuations are constructed of two colors of glazed brick, the colors changing in some locations, but laid up in the same pattern. Again, the gray-blue/green combination is used, with a darker green accent for the four-square windows. Pediments of varying shapes, and often including circular lights, are also employed to give a particular flavor to each of the masonry enclosures.

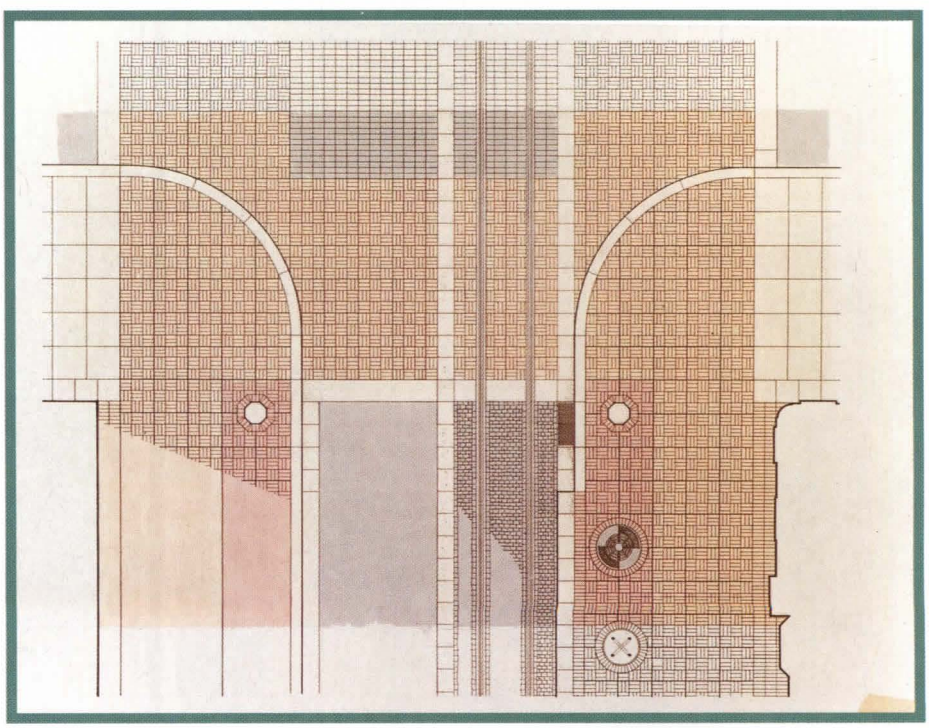
Bottom Lines

From opening day on, MAX has surprised its planners. From the standpoint of transit alone, it has confounded its early detractors by refusing to conform to their pessimistic estimates of 5000 riders per day; instead of either that figure or the cautiously optimistic one Tri-Met officials put forth (between 10,000 and 12,000), MAX began with an amazing 3-day weekend total of more than 200,000 free riders for its debut. Between then and its first anniversary, the system has posted an average weekday paid ridership of 19,900. A one-day record was set last June 6, with 70,000 paid riders to the Grand Floral Parade and other events connected with the city's Rose Festival. Its total ridership for that first year was 7,230,000, making the early pessimism a relatively distant memory. Tri-Met has even found it necessary to permanently add services, proof that MAX has more than satisfied the most primary of goals.

According to a Tri-Met ridership survey this past summer, the predicted sources of ridership have turned out not to be balanced in quite the anticipated way, however. Viewed by some at the beginning as primarily oriented to the working commuter, MAX has surprised observers. On weekdays, 28 percent of the boarders take light rail to and from work, with the rest riding it for shopping, entertainment, or personal business. On weekends, the agency estimates that 22 percent of the riders are sightseeing, 20 percent are shoppers. The Tri-Met survey also shows that for weekly ridership, 25 percent of its patrons have incomes of less than $10,000, while incomes of over $40,000 are listed for 18 percent of the weekday riders and 22 percent of the weekend fares.

For ZGF's Baldwin, these and other Tri-Met and economic figures carry important implications for architects/urban designers/regional planners. In downtown Portland, Tri-Met reports that in the first month MAX was in operation, many retailers posted an 18 percent increase over the previous year, with Christmas season sales up 50 percent. Traffic for businesses along the light rail route is reported to be up, and occupancy rates for office

Along the downtown loop (below), station shelters are of black steel, with glazed canopies and brass trim on leaning rails, black trash receptacles, and traditional streetlight posts. The architects' layout for intersections and stations (drawing, bottom) carefully details the pattern with brick in two colors, stone, and asphalt for the street, the sidewalk, and the crosswalks.



Leaving the downtown area via the Steel Bridge (below), MAX crosses the Willamette River for the corridor east, toward Gresham, where shelters change from the black color scheme to blue-gray. Some of the effects MAX has had on the corridor are evident in the before-and-after photos of the Skidmore Fountain area (bottom); while the neighborhood was on its way up before MAX, an increased pride and popularity has been shown since light rail began, with activity in the outdoor market and flea market more vigorous than ever before, and buildings leasing more readily. Similar leasing gains and increasing pride in buildings shows up all along the downtown loop (facing page).

Zimmer Gunsul Frasca

properties were up for the first quarter of this year to 84 percent. Building owners list MAX as being responsible for making buildings along the route easier to lease. Business at the eastern end of the line in Gresham has been similarly affected, according to the transit agency. New customers, higher sales, weekend openings, and increased commercial building activity are cited there.

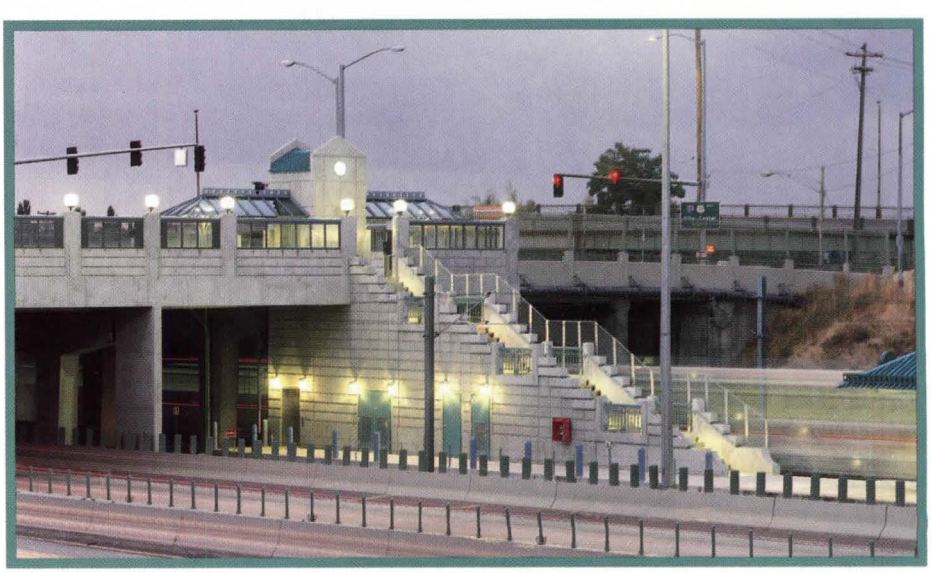
While Tri-Met's Ron Higbee, project director for the light rail system project, is extremely enthusiastic about its results, the agency does not delude itself into thinking that some of the recent expansion activity would not have happened without MAX. But it is apparent that the system has provided a focus, as intended, and a shot in the arm in addition. Portland's popular Pioneer Courthouse Square (P/A, Aug. 1985, p. 93), for instance, was geared to the eventuality of the light rail system when it was built. The late Portland architect Willard Martin anticipated the rail loop along both sides of his "living room" for the city, and the south side of the square provides a row of clear shelter roofs to accommodate waiting riders. Local entrepreneur/businessman/developer William Naito of H. Naito Properties would have certainly continued with his own efforts to revive areas like Old Town, Chinatown, and Japan Town; but his colorful enthusiasm-cum-boosterism on Portland's behalf has been stepped up by the development climate for which he gives MAX major credit.

Since being responsible for the Portland project, Gregory Baldwin has been asked to consult in such diverse places as Texas and Colorado. In a talk he gave to a Colorado AIA audience, he notes several questionable assumptions that have shaped transit planning for many years. Among them: the traditional base of transit has been technology; the "one-seat" ride—one source from beginning to end, as opposed to transferring, the need for "sensitivity to fare structure and travel time," and the "assumption that successful transit must be commuter biased." But, Baldwin observes, a system can be attractive to a majority of noncommuter trips, even in a Western auto-oriented city, and it can handle ridership in excess of its theoretical capacity.

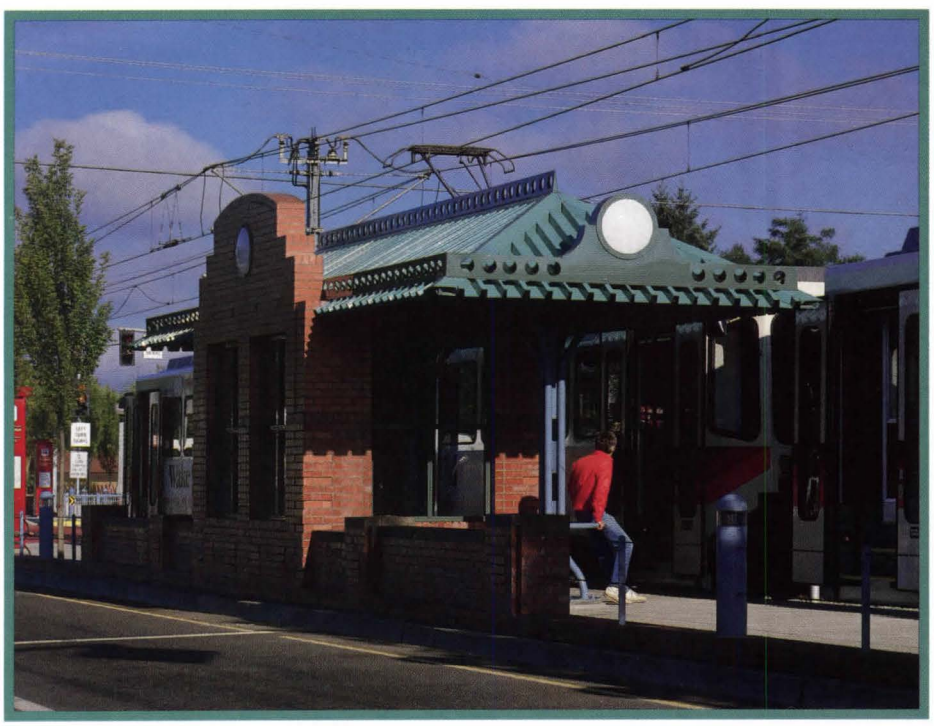
There are certain things he feels may be the cause of the "new and peculiar lessons" cited above. He is convinced now, more than at the beginning of the project, that surface transit, in addition to being less expensive than underground or elevated systems, is far more accessible and is capable of attracting a majority of noncommuter riders. He further feels that because of its barrier-free nature—both in the recent sense, but also in that no stairs or barriers exist in most heavily commercial areas—can initiate unusually broad support for abutting businesses. Baldwin also urges as "essential" the investment of private sector time and resources during the planning and construction phases of the system.

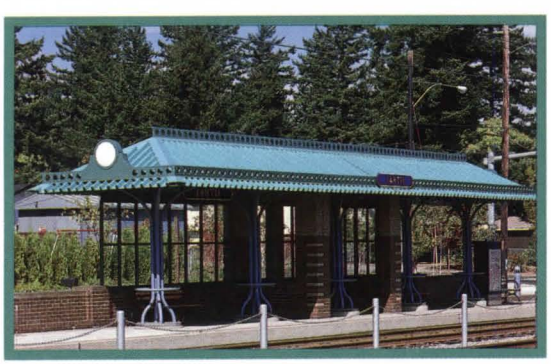
Given the fact that the investment dollar value of development in the area of the light rail project, directly attributable to MAX or not, is already over five times the cost of the $210 million system itself, the "friendly" aspects of the new system seem to have confirmed some of the assumptions ZGF started out with. Baldwin sums up the parameters of any project similar to Banfield: "a) it has to be conceived as more than a transit project; b) the quality of the experience has a greater impact on patronage than trip time or fares (within limits); c) it has to have a strong institutional context of development goals, policies and plans . . . but not necessarily regulations." From the perspectives of Ron Higbee, Bill Naito, and the roughly 20,000 weekday riders of MAX, the strategies appear to have succeeded in Portland. ***Jim Murphy*** ■

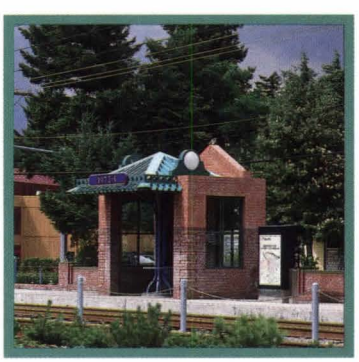
At the Lloyd Center/11th Avenue station (below), the same shelters serve the line, in softer blue-gray out of deference to the more parklike surroundings. Farther east, along the Banfield Freeway (bottom), the stations and overpasses mark more pronounced transfer hubs from Tri-Met buses to MAX. The same shelters combine with rusticated concrete structures and pedimented elevator towers for handicapped passengers. The unfortunate fencing on the freeway side was put up as an afterthought, without consulting the architects, who did the overpass ironwork. Even farther east, the shelters combine with varied brick enclosures (facing page, top photos) to express individual communities. The steel-framed Ruby Junction maintenance facility (facing page, bottom photos), removed from the main line, is a clean and refined technical area.



Project: *Banfield Light Rail Project, Portland, Multnomah County, and Gresham, Oreg.*
Architects: *Zimmer Gunsul Frasca Partnership, Portland (Gregory S. Baldwin, principal in charge and principal planner; Robert G. Packard and Brainard Joy Gannett, project managers; Ronald R. Stewart, job captain; Karl R. Sonnenberg, senior designer; Gary Molyneaux, planner; Brooks Gunsul, Thomas Geiser, Ronald P. Gronowski, Lee F. Kilbourn, technical team.*
Client team: *Tri-Met, Oregon Department of Transportation, City of Portland, City of Gresham, Multnomah County, Metropolitan Service District; Ron Higbee, project director, Banfield Light Rail Project.*
Program: *While providing improved transit service, the 15-mile rail project was intended to become a focus for regional development in the areas of its intended route.*
Consultants: *Roger Shiels, associated architect and coordination consultant; Shiels and Obletz, project manager; Ecodesign, Inc., Project for Public Spaces, Inc., E.M. Rose & Associates, The TRANSPO Group, CH2M Hill, Economic Research Associates, planning and urban design; KPFF Consulting Engineers, structural; Mitchell Nelson Group, Fred Glick Associates, Bruce A. Johnson, landscape; Wilsey & Ham, Cooper Consultants, Inc., civil; Bechtel Engineering, Louis T. Klauder & Associates, PAE Consulting Engineers, trackway and electrification.*
General contractors: *Railco-Multi Corporation; R.A. Hatch Company; Donald M. Drake; Herzog Construction Corporation; Marion Construction; Bombardier (vehicle manufacturers); Siemens (electrification).*
Cost: *$210 million.*
Photos: *Strode Eckert Photographic, except as noted.*







Ed Hershberger

Ed Hershberger

Ley Student Center
Rice University, Houston, Texas

Rice Reprise

Cesar Pelli & Associates rephrase a formal theme developed in an earlier project at Rice University.

CESAR PELLI & Associates' Ley Student Center at Rice University in Houston is the firm's second architectural project on that campus. Following on the heels of a great success at Herring Hall (P/A, April 1985, pp. 86–97), the Ley Center was at once a smaller and tougher problem. The architects' enviable opportunity to reexplore and expand notions of architectural organization and ornamentation first broached in Herring Hall was constrained here by existing conditions and a limited budget.

Pelli's design is an addition to the 1958 Rice Memorial Center, a half-hearted interpretation of Ralph Adams Cram's Tuscan Italianate architecture, which dominates on campus. In plan, Ley Center remains faithful to notions of spatial organization that guided the 1910 campus plan by Cram, Goodhue & Ferguson, which Pelli adapted in recent campus master plan proposals. The architects sought to reinforce the edge of an inner campus street, articulate a quadrangle given definition on the opposite side by Herring Hall, and clarify a syncopated spatial sequence of alternating buildings and open space.

The extension itself, which permits the consolidation of facilities serving a student population that has doubled in 20 years, is a collection of six components: a zone of two private dining rooms added to the existing cafeteria; an east/west corridor "spine," which extends beyond the building as a porte cochère; a group of one-story lounges off this spine which serve multiple activities and may be combined; a two-story "bar" to the north containing workrooms and student advising on the first floor with student activity offices above; an octagonal multipurpose room used for lectures, recitals, receptions, and dramatic performances; and a pair of courtyards comprising an interior garden and a service court with steel gates.

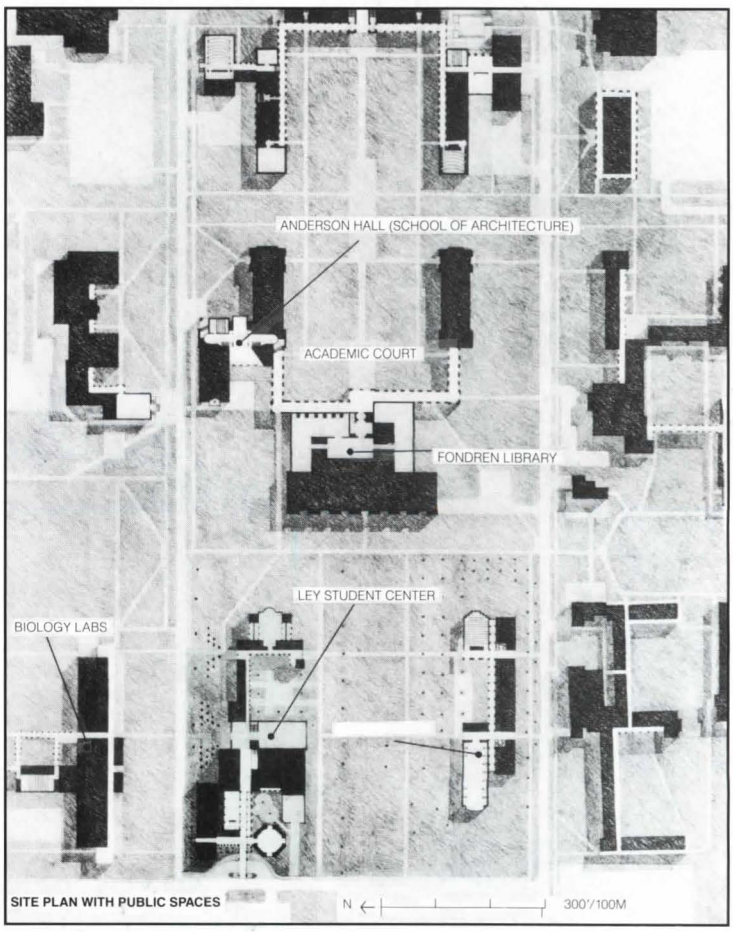
Visual themes explored by the architects in Herring Hall are restated here. The half-columns at the porte cochère are obvious repeats, as is the use of decorative masonry. As at Herring Hall, a modern structure is made to look traditional, although the sleight of hand is revealed. The garden arcade "piers," for example, which do not actually support the cantilevered roof, are articulated as "solid," while the brick veneer, pulled back at its edges, exposes the piers as nonstructural cutouts.

Other elements are less successful. The transition from existing building to new spine is barely articulated. The mass of the gable roof seems visually to weigh down upon its columns, while the fat fascia, designed to conceal gutters, is jarringly thin where it turns at the gable end. Vertical windows along the gallery, while cleverly evoking the rhythm of pilasters, are ungainly proportioned.

The success of Herring Hall was hard to follow, and the Ley Student Center inevitably suffers by comparison. The biggest problem proved to be the gap between diverse user needs and the restricted budget set by the University at the time of contract bid. Revisions too often resulted in expensive change orders. An entire bay was eliminated during construction; finishes in some sections were downplayed; and custom seating designed for the garden was eliminated.

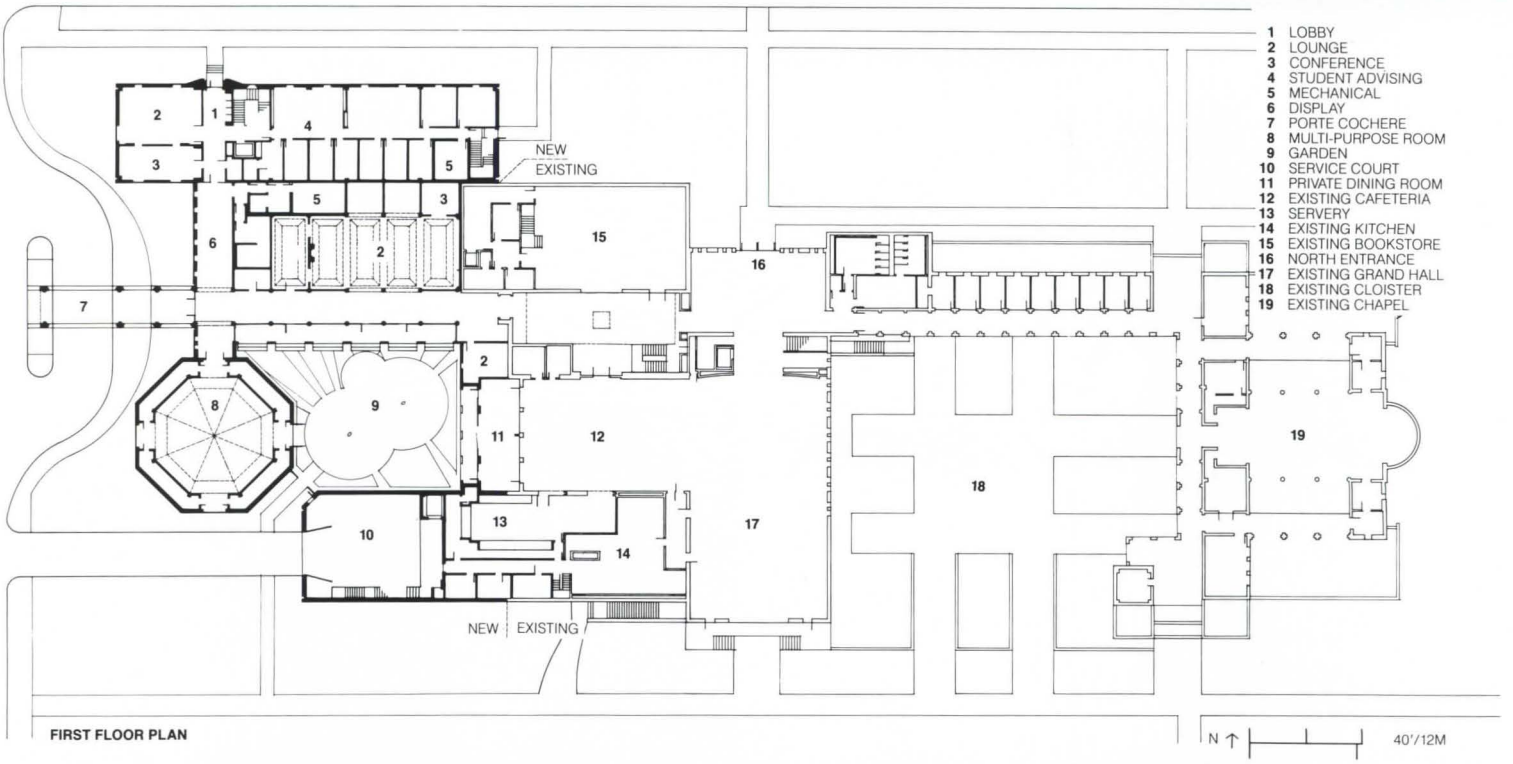
The project remains, however, a case study in the evolution of a consistent approach to form and detail that is at once modern and faithful to its eclectic context. ***Peter C. Papademetriou*** ■

Distant view (above) shows relationship between Ley Student Center at left and Herring Hall at extreme right, with quadrangle between. Existing Grand Hall and Campanile of the Rice Memorial Chapel are seen to rear of Ley Center. Ceramic medallion featuring owl image over entry is by artist Polly Myhrum. Shown below: the south corner of the Rice Memorial Chapel (Harwin C. Moore, architect), directly across from Herring Hall and adjacent to the 1958 addition renovated by Pelli, illustrates the more liberal architectural detailing and ornament typical of campus buildings after Cram. Site plan at right shows new quadrangle shaped by Ley Center and Herring Hall.

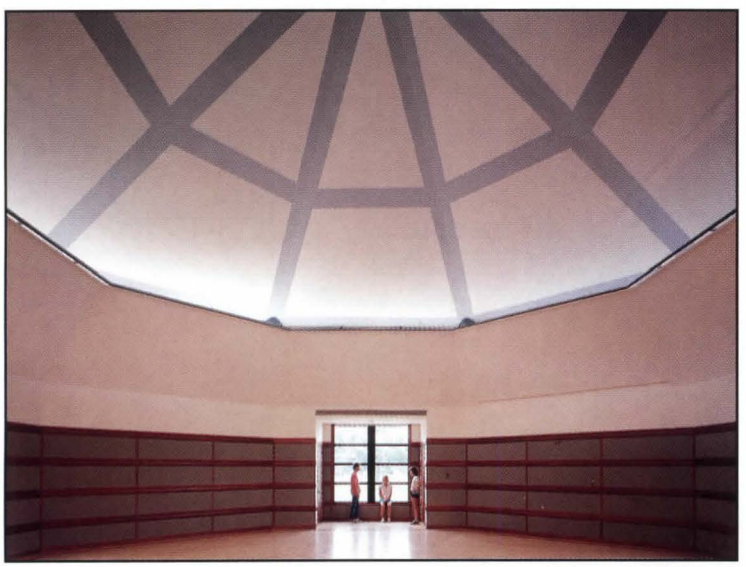


SITE PLAN WITH PUBLIC SPACES

New open courtyard designed by partner Diana Balmori captures sun from the south; benches are substitutes for Pelli-designed seating which had actually priced out below budget, and saplings were installed in lieu of larger specimen trees selected by architects. Paving was designed for natural drainage. Interior of octagonal multipurpose room (facing page, top left) shows thick wall containing support services; main lounge (facing page, bottom), which opens onto corridor "spine," is accented by skylights and lower-ceilinged alcoves; interior spine (facing page, top right) lines courtyard.



FIRST FLOOR PLAN



Project: *Ley Student Center, Rice University, Houston, Texas.*
Architects: *Cesar Pelli & Associates, New Haven, Conn.*
Client: *Rice University (Josephine Abercrombie, chair, Trustees Committee on Buildings and Grounds).*
Program: *23,500-square-foot addition and 56,000-square-foot renovation of existing student center comprising public lounges, multipurpose room, offices for student activities, garden, and expanded cafeteria, kitchen, and bookstore.*
Structural system: *steel frame.*
Major materials: *brick, limestone, glazed brick, tile, clay roof tiles, and sheet metal (exterior); quarry tile, carpet, wood flooring, painted gypsum wallboard and wood wall finishes (interior; see Building Materials, p. 156).*
Mechanical system: *chilled water and steam from central plant; single and multizone air-handling units.*
Consultants: *Cesar Pelli & Associates, landscape, interiors; Walter P. Moore & Associates, structural; Burns DeLatte McCoy, mechanical; Stephan Mesh and Diana Juul, lighting.*
General contractor: *W.S.Bellows Construction.*
Cost: *$3,850,000.*
Photos: *Paul Hester.*

Savoring the Essence

Piero Sartogo and Nathalie Grenon combine the finest design ingredients to create an elegant Manhattan restaurant.

Norman McGrath

Curves are used as a theme throughout the restaurant. Sinuous walls unify the front bar/café area (facing page) with the main dining room beyond, and the piano shape—the restaurant's logo—is found in details such as the plan of the front door (above), the door handles, ashtrays, and wood and leather custom-designed chairs. While specific details, such as beveled door frames, refer to the region of Tuscany, the well-crafted use of sensuous materials embodies the spirit of Italy. The latter is exemplified by the copper door and brass handles, the pearwood walls and bar, the Carrara marble floor, the Tirreno marble tables, and the brass and Murano glass lamp standards.

WHEN the Bitici brothers of New York (formerly of Tuscany) planned to move their well-loved and highly rated Manhattan restaurant Toscana to a new east side location (in the "bustle" of Johnson Burgee's "lipstick building" on Third Avenue), they looked for a designer that would give them certain special qualities. They wanted someone who could produce an environment to please the eye as their food pleases the palate. Just as the best cuisine releases and highlights the essence of its basic ingredients, the restaurant's environment, they felt, must go to the essence of design, far beyond the superficial aspects of decoration. They thought, for example, of Philip Johnson's Four Seasons restaurant in the nearby Seagram Building—elegant, mystical . . . and architectural.

Reviewing a number of possibilities, they chose a pair of architects whose credentials (including design collaboration in the Italian Trade Center in New York, P/A, Aug. 1981, pp. 94–99) confirmed that they could produce such an environment. The two—Piero Sartogo and Nathalie Grenon of Rome and New York—were, moreover, well capable of providing the Italian point of view.

The architects began by considering the awkward shape of the given space, generous in the rear but long and narrow in the front. Placing the bar and café section in the front and the dining area and private party room behind, they used curving walls not so much to refer to the early Modernist piano shape, which is certainly evoked, but to provide an abstract connecting device. The motif created by the opposition of curves and orthogonal lines is carried as a theme throughout the restaurant, in the shape of the dropped ceiling, the

inset light fixture, the wood-and-marble floor pattern, the custom-designed chairs, ashtrays, door handles, and even door section.

To reflect regional architectural influences, the typical narrow windows of early Renaissance Tuscany are given a contemporary interpretation in the beveled apertures that frame the unusually deep entrance doors, the doors to the prominent wine cellar, and the trompe-l'oeil window that gives a romantic (even kitschy) suggestion of the blue sky beyond.

But the Italian design instinct does not stop at abstract forms. Sensuality and vital materiality must be present as well. At Toscana, pearwood sheathes the curved walls and alternates with ebony to band the sinuous bar, the flitches carefully chosen by Sergio Bitici himself who, instructed on the fine points of wood grain by Sartogo, shopped for the material as his brother the chef might purchase the best ingredients at the daily produce market. Marble, "that noble and vital Italian material," as Grenon calls it, is used for tables, on the bar counters, for the trompe-l'oeil window, and for the floor. In the floor, maple strips between the marble tiles create a linear pattern that, in the center of the dining area, is reversed to become predominantly wood, to echo the piano shape in the ceiling and to be used, when occasion demands, as a dance floor.

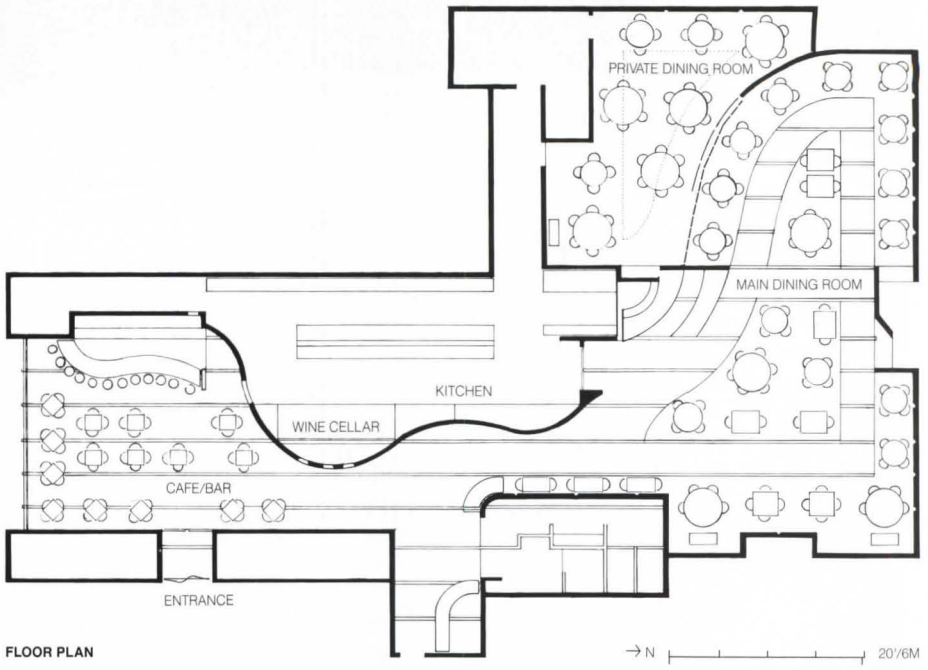
For walls not covered in pearwood, simple painted sheetrock did not suffice. Instead these surfaces are finished in encausto, a fresco-like technique employing egg-tempera pigment applied directly to a wet plaster base, resulting in a subtle play of color that imparts a sense of depth to the planes.

Most sensuous of all the materials is, surprisingly enough, glass—Murano glass used in various ways for light fixtures. In the piano-shaped ceiling hollow above the main dining room, glass "waves" in the typical blue Murano color are suspended beneath an illuminated ceiling that gives the suggestion of a natural skylight. For wall sconces and standing lamps, opaque and clear glass are combined to form a smokelike pattern which is extended, with magical effects, in the reflections on the wall. To create these fixtures, the techniques for glass-blowing were extended to their limits, huge (five-foot-square) molds being needed to achieve a sufficiently thin material, each square producing two fixtures.

A satisfactory acoustical environment, muted without being dead, has been achieved—despite the many hard materials—by varied ceiling heights, judiciously placed carpeting, the curved wood wall, and a suspended acoustical tile ceiling system that, reinforcing the linear pattern of the floor, is integrated into the overall design.

The Biticis knew that to create the finest cuisine, intelligence, instinct, experience, and a true understanding of the essential ingredients are mandatory. For design, they suspected that the same qualities were necessary, and they were right.

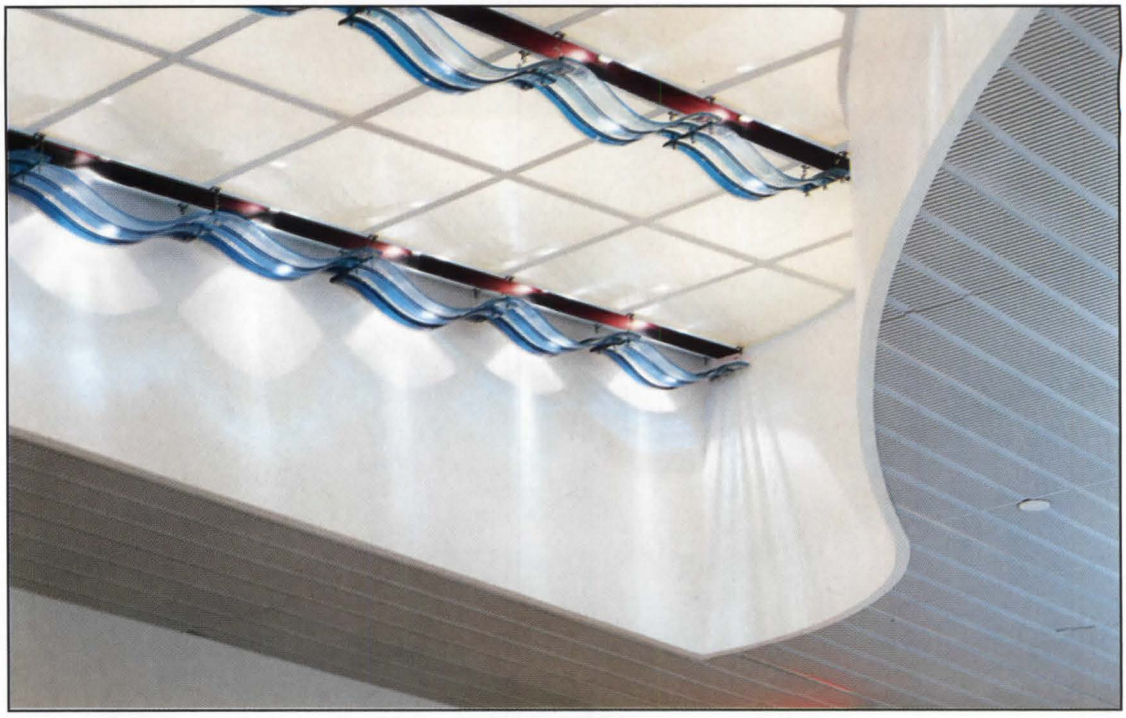
Susan Doubilet ■



FLOOR PLAN

Two decorative elements refer directly to the restaurant's Tuscan origins. The painting in the café/bar (facing page) is by Giuliano Fiorenzoli, after the 15th-Century "Perspective of a Square" attributed to Francesco di Giorgio. In front of the trompe l'oeil window in the main dining room (above) stands a "Vita Aerea," Leonardo da Vinci's "flying screw," serving here as perch for a bird sculpture.

Project: *Toscana Ristorante, New York.*
Interior architects: *Piero Sartogo Associates, Rome and New York (Piero Sartogo, Nathalie Grenon, design architects). Emery Roth & Sons, construction documents and supervision.*
Building architects: *John Burgee Associates with Philip Johnson.*
Client: *Sergio Bitici.*
Program: *restaurant with private party room; bar and café section: 4700 sq ft on ground floor of office building. Service area, 2500 sq ft, in basement.*
Major materials: *marble, pearwood, encausto (see Building Materials, p. 156).*
Consultants: *Cosentini Associates, mechanical; Foscarini-Murano, lighting; Vignelli Associates, graphics; Dynamic Food Service Equipment Inc., kitchen consultant.*
Contractors: *Herbert Construction Company Inc., general contractor; Pat Morris, marble installation; Sommerville, woodwork.*
Costs: *$3 million.*
Photos: *Mark Darley, except as noted.*



Two possibilities for bringing natural light into the main dining room were thwarted, but were replaced with ingenious devices. A permit for a window in the back wall was expected but not received; instead, a trompe l'oeil window sculpture (right) was devised by sculptor Roberto Gnozzi of white Carrara with blue "sky" painted in. And a skylight over the space was ultimately rejected because of potential maintenance problems; instead, the dropped ceiling is hollowed out in a piano shape and lighted to give the effect of a skylight, with blue Murano glass waves floating over the surface (facing page). When turned on to its full potential, the "skylight" floods the space with light, leaving the edges rather dark in contrast.

Clos Pegase Winery
Calistoga, Calif.

An Unfinished Harvest

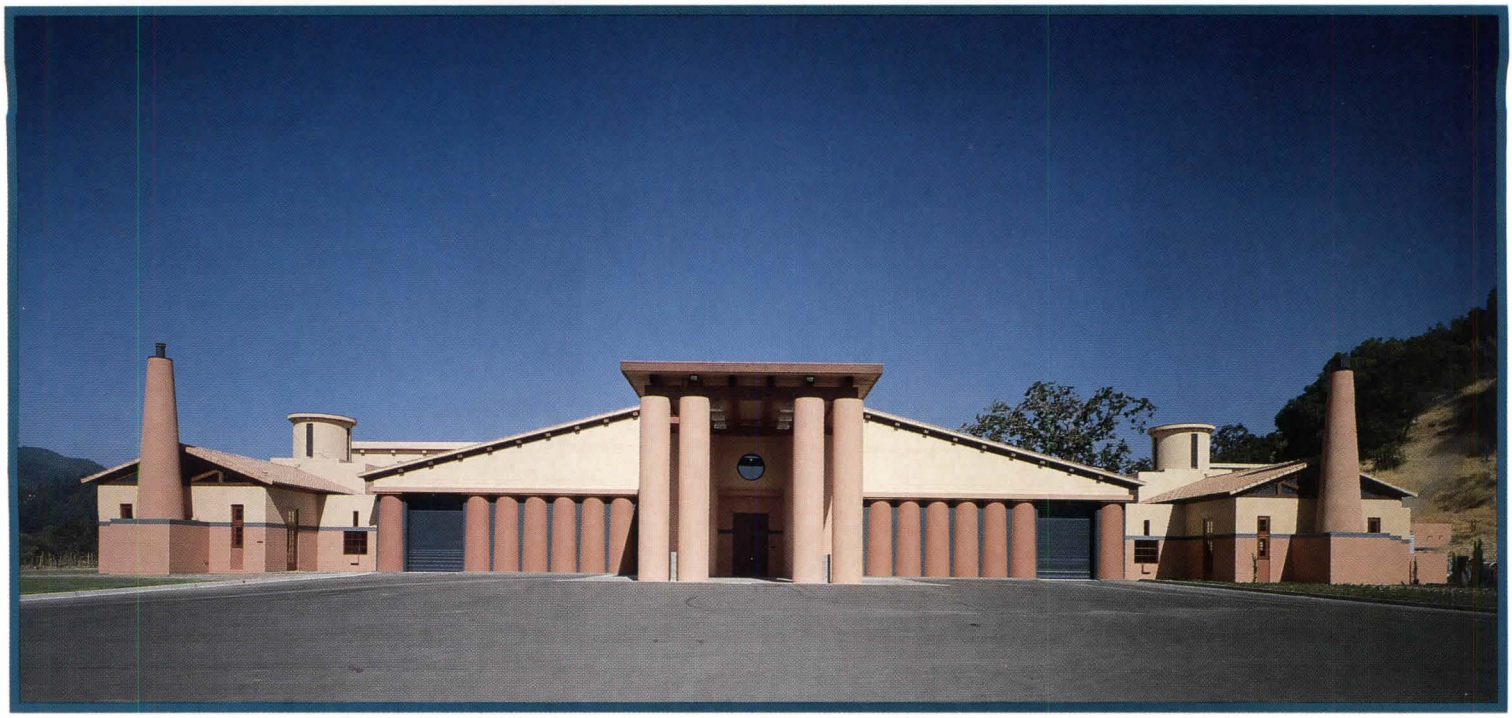
Winner of a highly publicized competition, Michael Graves's design for a winery is both a powerful building and an intriguing fragment of a larger, unrealized composition.

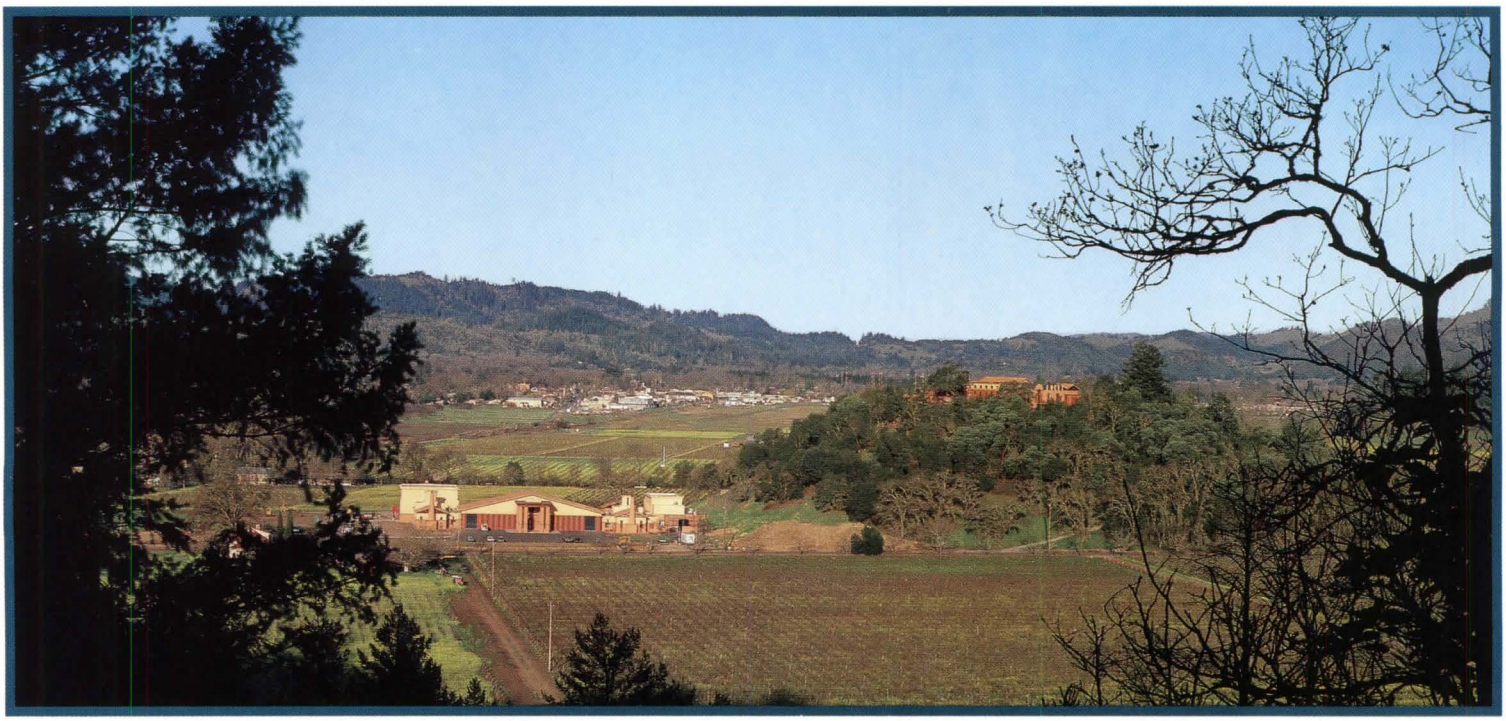
In 1984, the San Francisco Museum of Modern Art, in cooperation with vineyard owner and art collector Jan Shrem, sponsored a design competition for a winery, sculpture garden, and residence in the Napa Valley. The winery was to be integrated with an existing vineyard on the valley floor, next to a wooded hill, where the house would stand. The sculpture garden, which was to be open to the public, was to tie the house and winery together on the hill. To consummate the union of art and architecture in the noble enterprise of winemaking, an architect and an artist were to collaborate on the design. In September 1984, the jury reviewed the five finalists, chosen from 90 entries, and awarded the commission to the team headed by architect Michael Graves and painter Edward Schmidt (P/A, Dec. 1984, pp. 20–21).

The winery's public entrance (right) is located on its south side, separated from the road by a field and vineyards. The central portico, with its giant Tuscan column, encloses an atrium that separates the office wing to the east from the visitors' wing to the west. In the center of each wing is a rotunda, the drums of which are visible above the tall side doorways. The chimneys at each end of the building are for the fireplaces in the owner's office (east) and the dining room (west).

STRONGLY colored, boldly modeled, monumentally scaled, the Clos Pegase winery presents itself with authority. While the winery as built is a significant work in its own right, it is also worth discussing as a part of a design, for a larger, richer complex of buildings and landscape that was Michael Graves's response to the competition's program.

Michael Graves's vision of the Napa Valley as the new Tuscany has been severely edited, as a glance at the competition model (see page 85) shows. The competition design program, released in July 1984, specifically requested that the public sculpture garden tie the house and winery together on the side of the hill; it also suggested an open-air theater ("if feasible"), and "water features" that would tie the winery to the garden. However, Graves's sculpture terrace (which he located at the bottom of the hill) is missing, as are his amphitheater, the zigzag path up the hill, the water course connecting house to





Paschall-Taylor

winery, and other features. The winery's open, stepped rotunda, which would have been planted with cypresses and lined on the inside with Edward Schmidt's murals of winemaking (the focus of the required artist/architect collaboration) has been axed, disrupting the formal and symbolic link to the fermentation shed. Even the sculpture of Pegasus, symbol of the winery, which was to have crowned the entrance, was shelved. How come?

The competition jury found the Graves/Schmidt site development plan "a brilliant and powerful piece of work," and the most responsive of the five finalists' schemes to the stated design requirements. Further statements released by the San Francisco Museum of Modern Art indicated that the competition's sponsors, including client Shrem, were well pleased with the results. Yet behind these happy scenes, another scenario was unfolding.

Even before the competition had concluded, Jan Shrem had submitted preliminary plans to the Napa County planning commission for a winery and residence, designed by Valley Architects (who had nothing to do with the competition). There was no provision for a sculpture garden; perhaps Shrem, aware that his property was zoned for agricultural use only, knew that including it would only exacerbate local tensions over congestion in the area. The preliminary program for the competition, published in May 1984, had stated: "The Napa Valley enjoys an influx of a talented, cultured, cosmopolitan group of leaders brimming with energy, who can develop the valley into a center for the arts." In fact, local residents were not enjoying the influx of people, never mind who they were.

Predictably, the commission and residents took a dim view of the winning scheme. Although a conditional use permit was granted in October 1984, it came with a warning against any programmatic changes in the submitted (Valley Architects) plan, which effectively wiped out a good deal of Graves's design.

The winery's east side (top) is where grapes are delivered, under the overscaled portico of the fermentation shed, with its engaged columns and blank pediment. The chimney at the north end vents the mechanical system. From a distance (above), the winery can be seen in relation to the residence of the owners, on the hill above the winery. The model (facing page, top) of Michael Graves's competition-winning design shows the winery and residence, as well as the sculpture terrace, stepped rotunda, water course, amphitheater, and landscaping that were part of Graves's scheme, but which were not built.

Faced with opposition, Shrem retreated on all sides, saying that he had never intended to build more than what was shown on the permit. When questioned at a press conference around the time of the winery's opening, he asserted that Graves's design was much too costly, and implied the architect had let his imagination run wild. So much for the union of art and architecture.

As built, the residence follows Graves's design, but the interiors have been painted a most un-Gravesian white throughout, and the architect's Classical landscape design for the entrance court has been scrapped for a Japanese garden. (Shrem has also kept professional photographers away from the house.)

The winery complex is faithful to Graves's scheme, except for the replacement of the barrel-vaulted storage section of the building with caves bored into the hillside, an alteration requested by a new winemaker at Clos Pegase. However, Graves's strong architectural composition now appears overexposed. While a row of poplar trees will eventually screen the east side of the site from the road, the owner's replacement of two groves of trees at the corner of the site with parking lots cheapens the setting by recalling a shopping center. This may change, but one cannot help concluding that at least as much violence was done to Graves's scheme by insensitive landscaping, here and elsewhere in the complex, as by the amputation of major parts.

From the parking lots, not one but two monumental entrances are visible. The most commanding one, however, is for grapes, not people. Animated by use for only a short time during the harvest, the portico recalls the great central doors of cathedrals, which are only opened for the highest occasions.

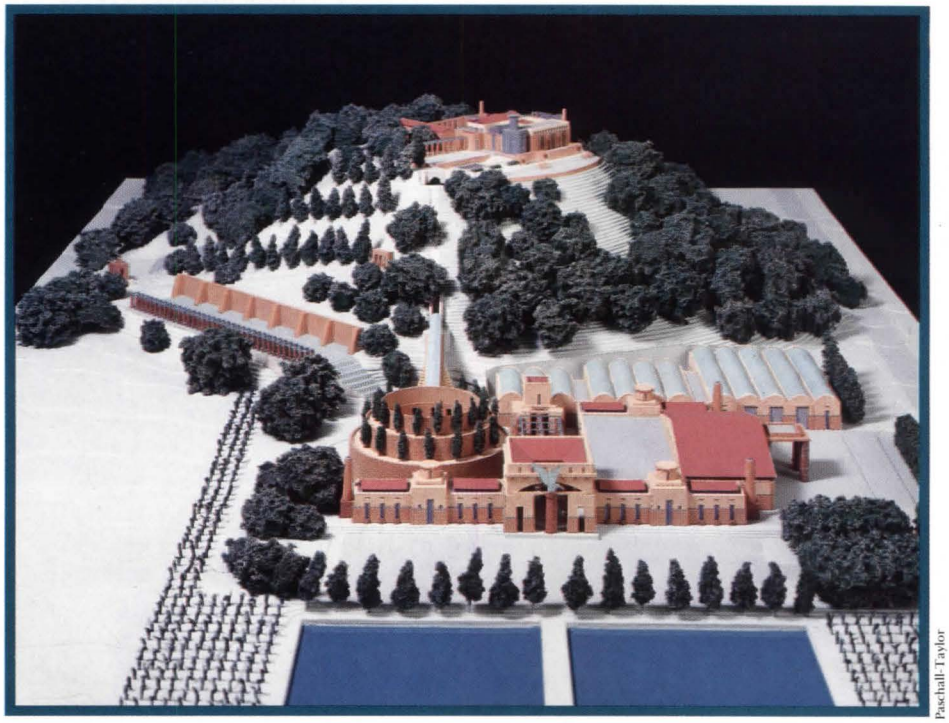
The public entrance to the winery is a more humanly scaled composition. Poplars were to have lined a terrace beyond which two square ponds were to have defined an axis to the single Tuscan columns centered in the openings framing the atrium. Even without the introductory landscaping, the great square atrium, open to the sky and supported by four square piers, provides a thrill. Here visitors pause to take in the sense of open sky and splendid, framed views across the valley.

The interiors of the offices and public rooms are the narrow, high, and airy spaces that Graves favors, and cupolas dramatize their spatial sequence. The mahogany window frames and the strong, simple light fixtures designed by Graves for the reception wing provide craftsmanlike notes in otherwise simple interiors. While the window frames also enrich the exterior, they do not compensate there for a general lack of scale-giving detail. Such detail would also have given a greater sense of materiality to the elevations, and would have reinforced the monumentality implied in the forms, but only fully realized in the atrium.

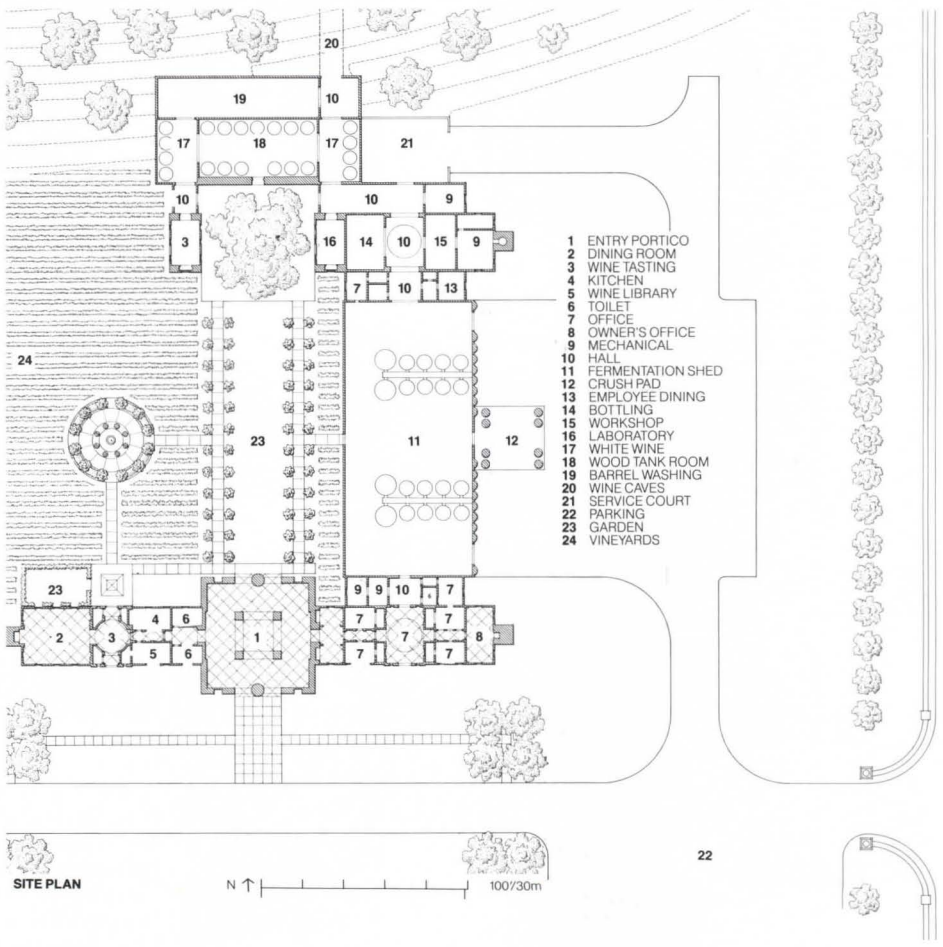
The strong colors of the winery, while countering the banal landscaping, are not convincing enough to maintain the feeling of masonry suggested by the building's simple forms and horizontal divisions. Only when the full force of sunlight strikes the walls do the colors lose their intensity and allow the building to "give back" the light that so inspired Graves when he first visited the valley. How the colors will age, or whether they will be allowed to mellow, is difficult to predict.

Some critics have faulted Graves's personal blend of Classical styles at Clos Pegase—Ledoux in Tuscan garb, as it were—for its lack of modesty. Simple stone and wooden buildings that recede into, rather than stand out from, their settings are

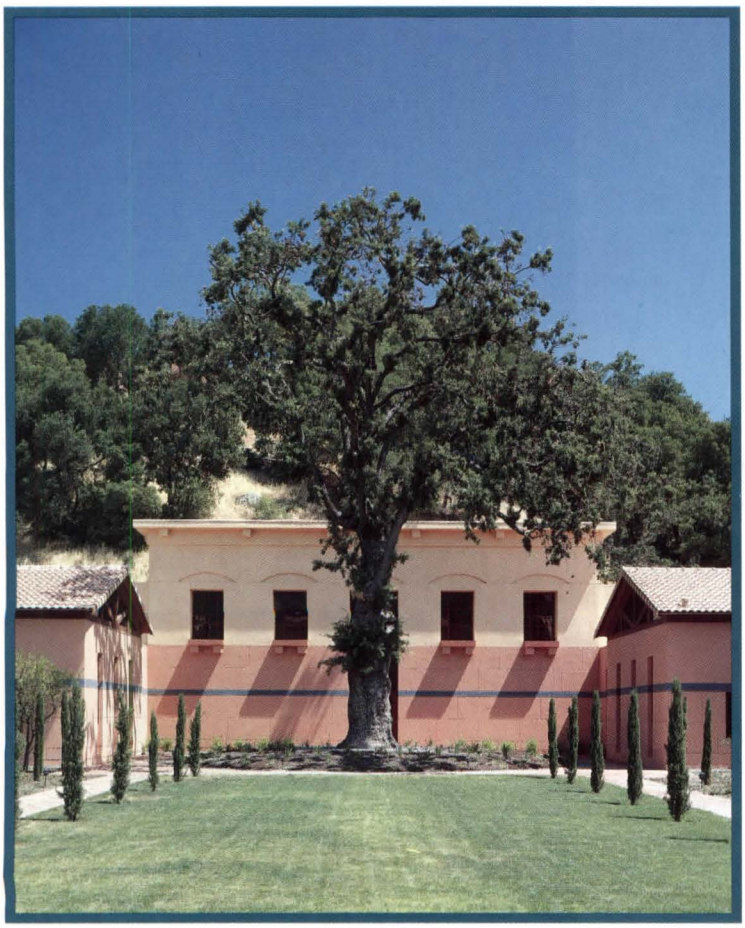
(continued on page 88)



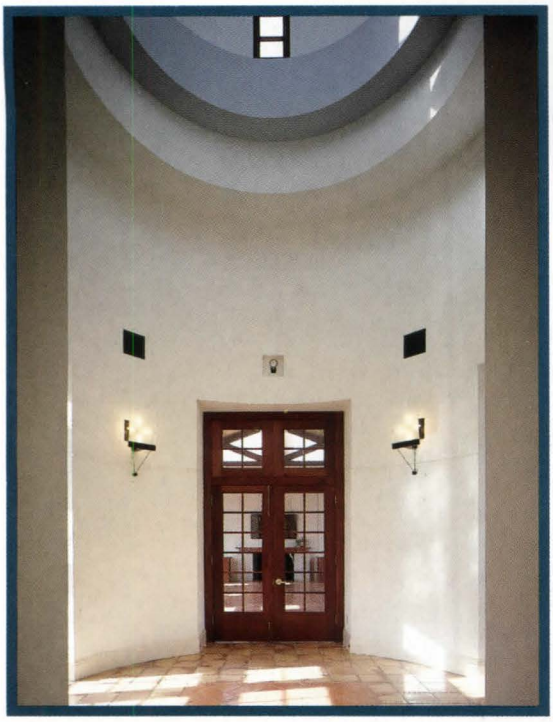
Paschall-Taylor

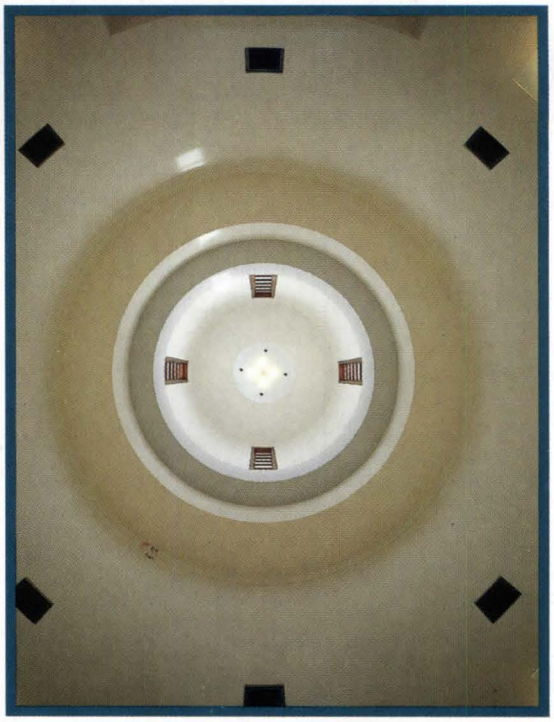


SITE PLAN



The portico at the visitors' entrance (top) leads to a courtyard, at the opposite end of which is the wood cask room (interior, above, and exterior, left) and tasting room (at left of wood cask room). The old live oak tree is a focal point of the courtyard, which is enclosed on the east side by the fermentation shed (facing page, view south), but which is open on the west side, where Graves had intended the roofless rotunda to be. The architect had also intended for this courtyard to be shaded by pergolas; the winery's owner decided instead to plant double rows of cypress trees.





Project: *Clos Pegase Winery, Calistoga, Calif.*
Architect: *Michael Graves, Architect, Princeton, N.J. (Michael Graves, project architect; Terence Smith, associate in charge; Juliet Richardson-Smith, job captain; Ronald Berlin, project manager; Peter Hague Neilson, Alexey Grigorieff, Lesley Mason, assistants).*
Client: *Clos Pegase, Calistoga, Calif.*
Site: *agricultural valley, with existing old live oak tree preserved.*
Program: *25,500 sq ft of wine production, office, and visitors' facilities (caves not included).*
Structural system: *wood frame construction; renforced concrete slabs, foundation walls, and footings.*
Major materials: *wood; stucco, terra cotta roof and floor tiles; cedar trim, cast concrete; oak flooring; gypsum board; redwood ceilings (see Building Materials, p. 156).*
Mechanical system: *heat pumps and condensing units; gas-fired furnaces; ducted supply and return distribution.*
Consultants: *Robert Lawson, structural; Marion Cerbatos and Tomasi, mechanical; Beta Associates, energy; Michael Graves, Architect, interiors.*
General contractor: *Friederich Company, Inc.*
Costs: *unavailable.*
Photos: *Otto Baitz, except where noted.*

Photos: John Sutton

(continued from page 85)

seen to be more appropriate. Yet the architectural history in the valley is one of a tabula rasa on which people were free to project their visions of somewhere else.

The 1860s Napa Soda Springs resort had white Roman temples set against a hillside; the 1880s wineries offered images of the Rhineland. Recent decades have produced wineries in every style you can name, and some you can't.

Graves won the competition by projecting a picturesque vision of buildings and landscape that captivated the jury. Contemplating the completed fragment of that vision, it seems less urgent to question Graves's motives than to wonder about competitions that are rooted more in illusion than reality.

Sally B. Woodbridge ■

The west rotunda (top, left and right), adorned with architect-designed light fixtures, leads to the dining room (above), for which the architects also designed furniture and lighting (except for the chandelier, which was a client purchase). Mahogany door and window frames, and a granite and wood fireplace (detail, left) add further richness to the room. The tall, elegant proportions of the doors and windows are emphasized on the exterior of the rotunda (facing page).

P/A Technics
Uses of Wood Framing

While wood framing has become more standardized, some recent projects show that building with wood can produce results that are anything but standard.

ONE wonders if Chicago builder George Washington Snow realized the importance of his 1832 invention: the balloon frame. It not only simplified the building of shelter in the rapidly growing industrial cities of the East and in the sparsely forested areas of the West, but it amounted to a whole new conception of wood as a structural material. The massive, irregular, treelike qualities of the timber used in post-and-beam construction gave way to the lightweight, uniform, machine-made characteristics of the 2x4. What Snow set in motion—the development of wood as a mass-produced commodity and wood construction as an highly efficient process—continues to this day.

Recent efforts at increasing the uniformity of the material, for example, include the selective breeding of "super trees" with straight trunks, high limbs, and good tapers and crowns. Increasing the average rotation of trees from 28 to 38 years also has reduced the amount of juvenile wood and further improved the quality of lumber. "We can't change the variability of wood," says Carl Lindberg of the Southern Forest Products Association, "but we can identify that variability and make the behavior of the material more predictable." An illustration of just how far the quality control of wood has gone is a project about to begin at the U.S. Forest Products Laboratory that will develop specifications for wood comparable in precision to those for steel or concrete.

Recent improvements in the cost and efficiency of wood construction have been no less dramatic. One such development has been optimum value engineering, a method of wood framing developed by the National Association of Home Builders Research Foundation for the Department of Housing and Urban Development. This process eliminates all nonessential framing members, using two rather than three studs at corners, for example, or placing studs 24 rather than 16 inches on center. Developed in the late 1970s as inflation was rising and lumber supplies were dwindling, optimum value engineering saves both labor and material, although its adoption has been slowed as the conditions that first prompted it have eased.

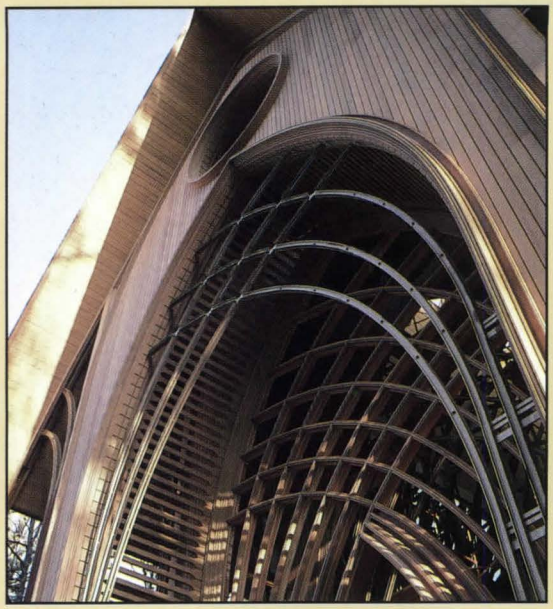
The Truss Frame System, developed by the U.S. Forest Products Laboratory, is another example of recent efforts at streamlining the balloon frame. The truss frames, each containing a floor and roof truss connected by studs, are erected 24 inches on center like so many slices of bread. The system demands less labor and material and creates clear-span interiors, but it does not lend itself to complicated or irregularly shaped structures.

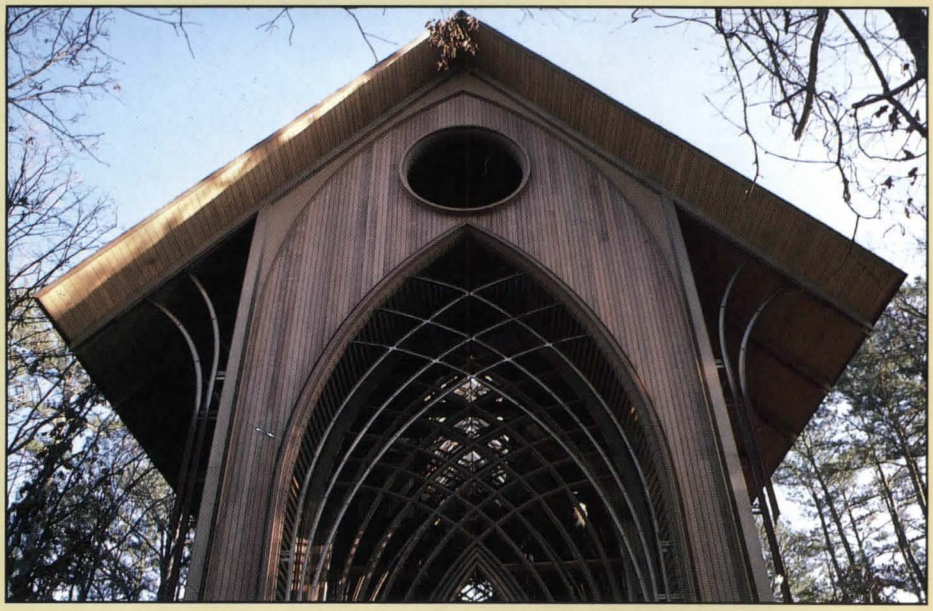
The greater predictability of wood also has led to its being combined increasingly with other materials. Trusses that have wood chords and steel webs, space frames assembled of wood struts and aluminum connectors, and cladding systems in which wood framing supports concrete or brick prefabricated panels are but a few examples.

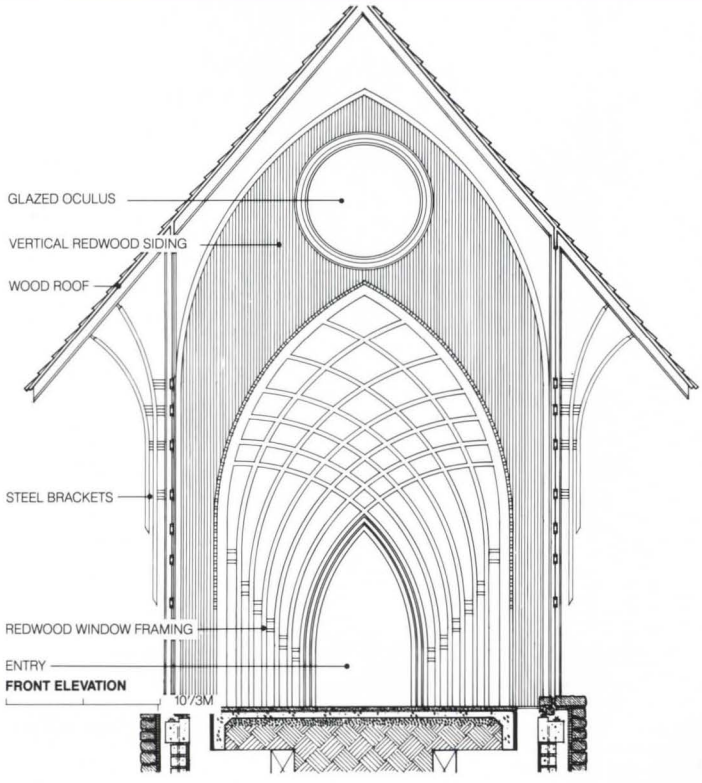
If the technics of wood framing has consistently aimed toward a common goal—greater predictability and more efficient use—the architectural expression of the wood frame has taken different directions. One direction has emphasized the linear aspects of the wood frame; the board-and-batten houses of A.J. Davis and the bungalows of Greene & Greene are some historic examples of that approach. Another direction has emphasized the frame's surface and its qualities of thinness and lightness. Here, the taut forms of the Shingle Style or the thin planes of many early Modern houses come to mind.

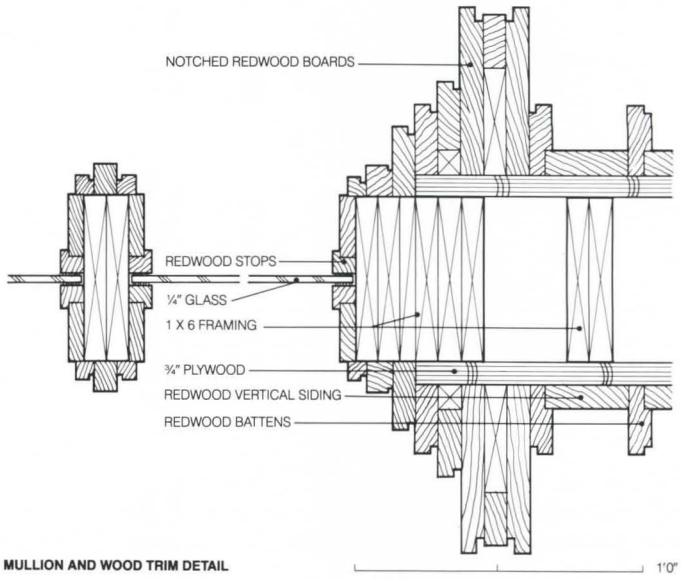
The buildings on the following pages offer some new twists on these old themes. Several projects take advantage of the greater predictability of wood by using it in precision applications and combining it with other machine-made materials. Most strive for efficiency by minimizing the amount of wood or using it only where it is most needed. And all use the wood frame as a means of architectural expression, emphasizing either the linear qualities of the frame itself or the planar qualities of the surface that the frame supports. While none of these buildings are direct descendants of Snow's balloon frame, they all retain its goal: pushing the limits of what wood framing can be. ***Thomas Fisher*** ■

Acknowledgements
We want to thank the following for their help with this article: Debra Squire, U.S. Forest Products Laboratory; Tina Laver, American Wood Council; Carl Lindberg, Southern Forest Products Association; Chris Grover, California Redwood Association; Mike O'Brien, Western Wood Products Association; Martin Mintz, National Association of Home Builders.









Project: Mildred B. Cooper Memorial Chapel, Bella Vista, Arkansas. Architects: Fay Jones & Maurice Jennings.

This private chapel consists of a single room enclosed within a high, narrow wood-and-steel-framed structure. While steel channels are used extensively as columns and brackets, the impression that the building gives is one of being made of wood.

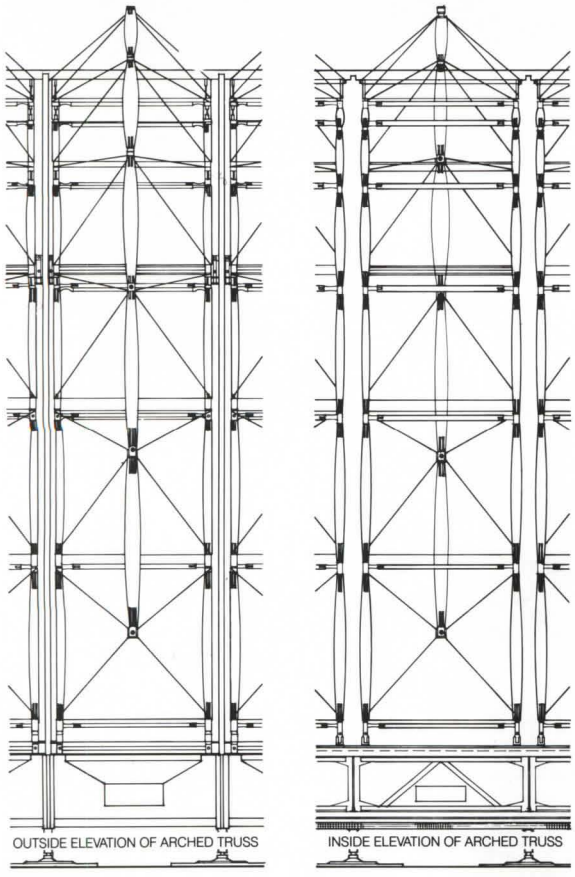
The wood tracery at the entrance certainly contributes to that impression. The window wall is built entirely of a vertical grain redwood; pine was selected initially, but "it had too many kinks in it," says architect Maurice Jennings. The window's structure consists of one-inch-wide boards that have been bent in a jig and then screwed and glued together to form a series of pointed arch shapes. Covering that structure is a series of grooved boards that step forward in plan and that recall, in elevation, the linearity of Gothic tracery. The siding surrounding the entry window consists of vertical shiplap boards fastened to ¾-inch plywood. To accommodate wind loading, especially where the 1x6 boards are half lapped together at the intersection of the ribs, 24-gauge galvanized steel gussets are used to reinforce the joints. The pair of pointed-arch entry doors are made of three layers of ¾-inch oak plywood, edged with oak strips. The glass in the lower part of the tracery window is cut into arc shapes and butt glazed with silicone; the glass in the upper areas is set within wood stops.

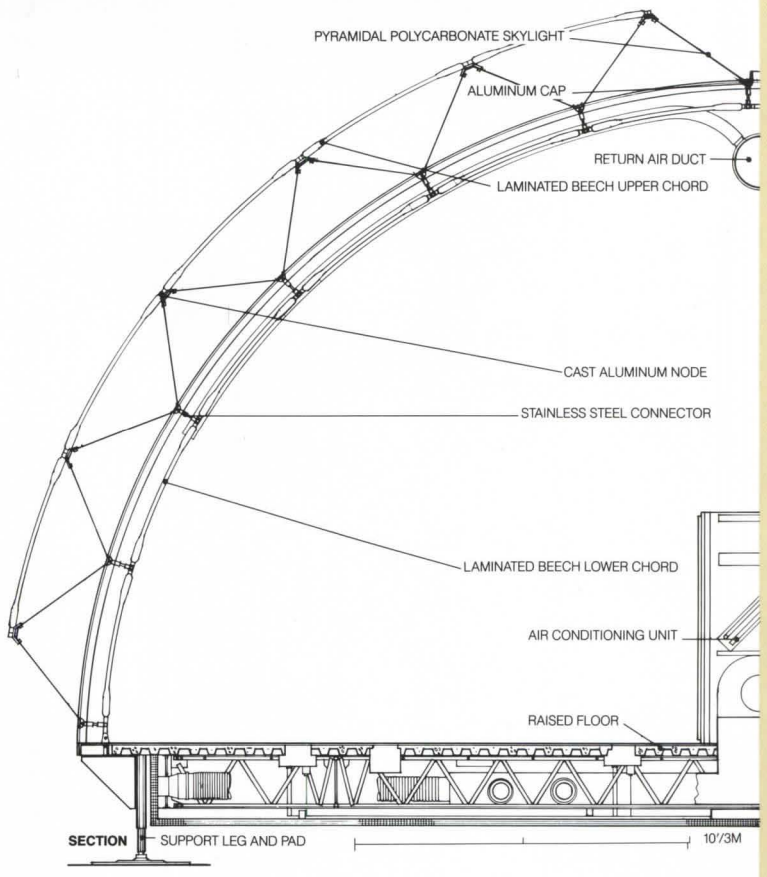
The front and back elevations of the chapel are relatively solid. The side elevations, in contrast, are mostly glazed, with the paired steel bents that form the columns embedded in layers of 2x4 and 2x8 redwood boards. The columns support a broad gable roof with a central skylight. The roof contains 2x8 rafters, a laminated wood potlatch deck, and cedar shakes, and the gabled skylight consists of 2x6 rafters, ¼-inch tempered glass, and 2x4 cross bracing.

The chapel recalls, in wood, the stone detailing of Gothic architecture. What is striking about the project is how well wood lends itself to the task. The pliability of wood enables it to hold the shallow curves of the pointed arch, while its ability to be easily routed, sawn, and fastened together enables it to capture the linear qualities that are so much a part of Gothic work.

Gianni Berengo Gardin

Gianni Berengo Gardin

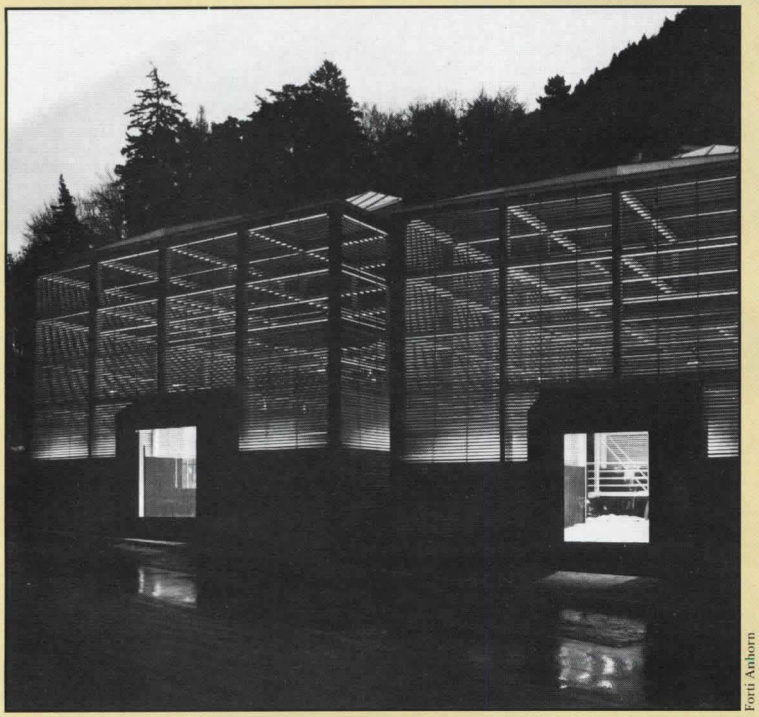




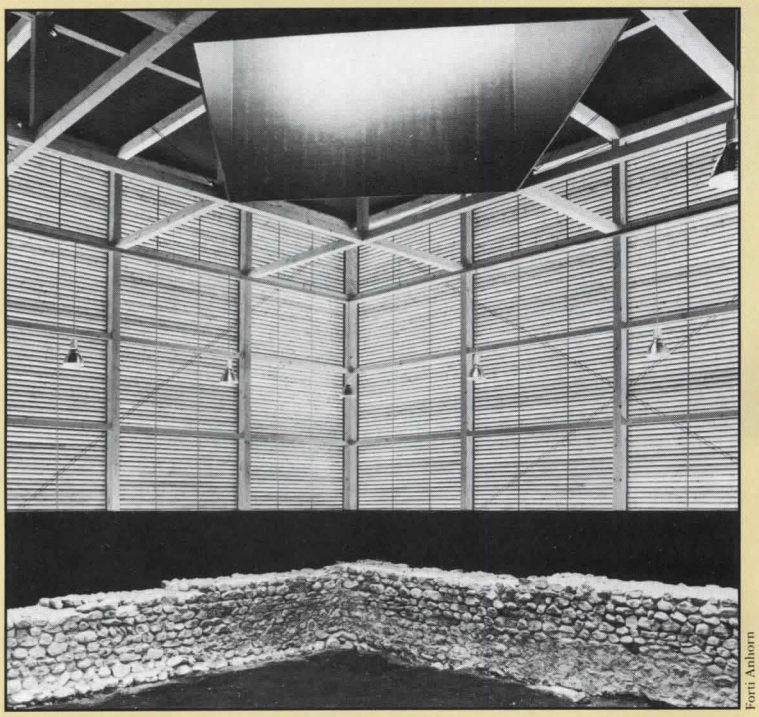
Project: IBM Exhibit Pavilion, Paris Exposition, Paris.
Architects: Building Workshop + Atelier Piano with Ove Arup & Partners as engineers.
IBM Europe wanted a pavilion for the exhibition of computer technology that could be easily demounted, readily trucked to a new site, and quickly reerected. Building Workshop, headed by Renzo Piano, and Ove Arup & Partners, with a team led by Peter Rice, developed a single, barrel-vaulted space for the pavilion, nearly 23 feet high, 40 feet wide, and 158 feet long. The building's structure consists of 34 wood and metal arched trusses. The trusses have offset top and bottom chords that are made of short sections of laminated beech and are connected to each other with cast aluminum nodes. Connecting the top and bottom chords are pyramidal polycarbonate skylights. Because polycarbonate has a higher coefficient of expansion than either wood or aluminum, curved metal rods were placed between each of the trusses and stainless steel "fingers" between the skylights and the lower chords to accommodate differential movement. Perforated aluminum screens with a light transmittance of 20 percent can be stretched beneath each of the skylights to reduce glare.

The arched trusses are connected to a raised floor structure that contains mechanical and electrical runs. Air-conditioning equipment stands at the center of the pavilion with ducts feeding through the plenum space below to floor outlets. The pavilion stands on adjustable legs and large diameter pads to accommodate variations in the terrain.

The wood in this building is not significant in terms of the amount of material used, but it is very important to the building's structure and flexibility. Wood's lightness, durability, and strength make it suitable for demountable structures, which require frequent handling, and the material's pliability and forgiveness let it accommodate the slight shifts in alignment that can occur in portable buildings. Wood also is a perfect material for the likes of Renzo Piano, who favors precision components that lend themselves to "the patient play of craft."



Forti Anhorn



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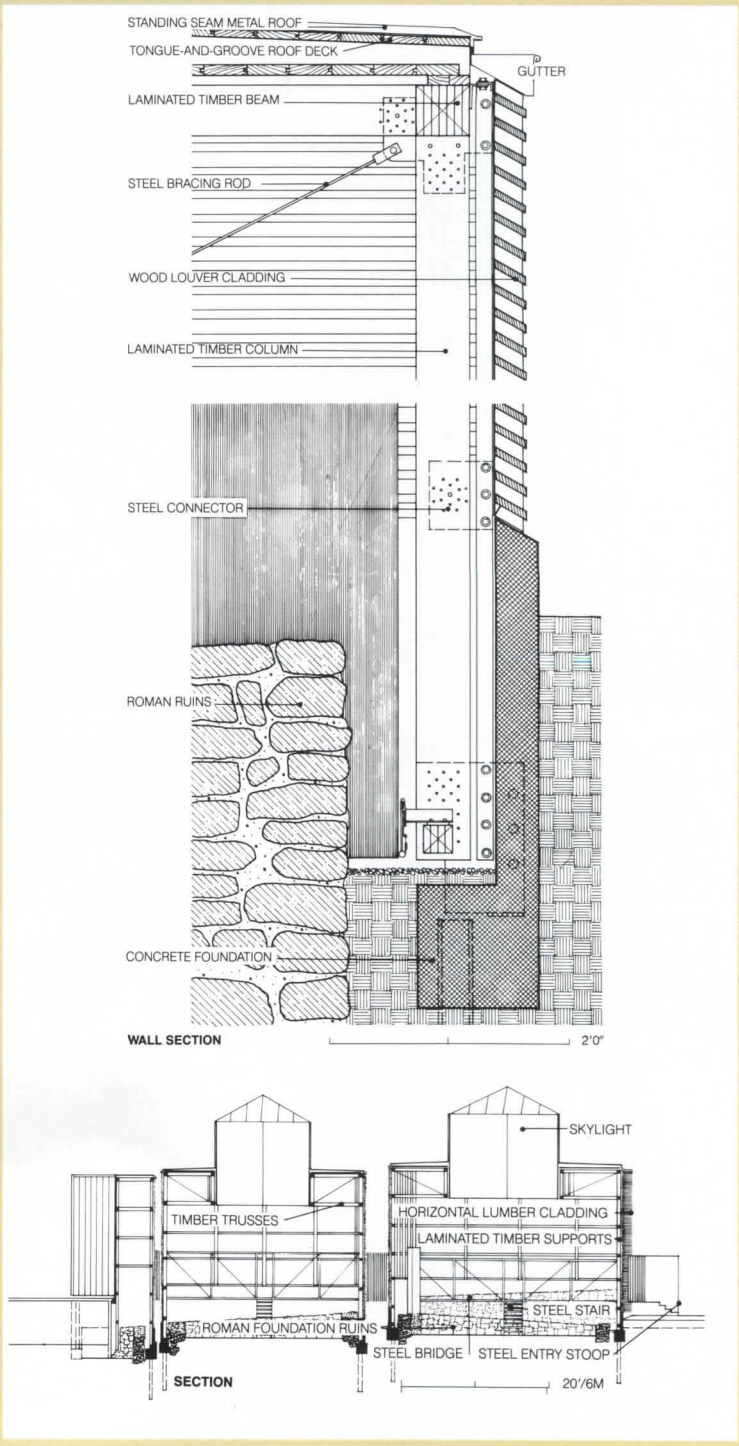


Project: Enclosure over Roman ruins, Chur, Switzerland.
Architect: Peter Zumthor, Zumthor Architekturburo.

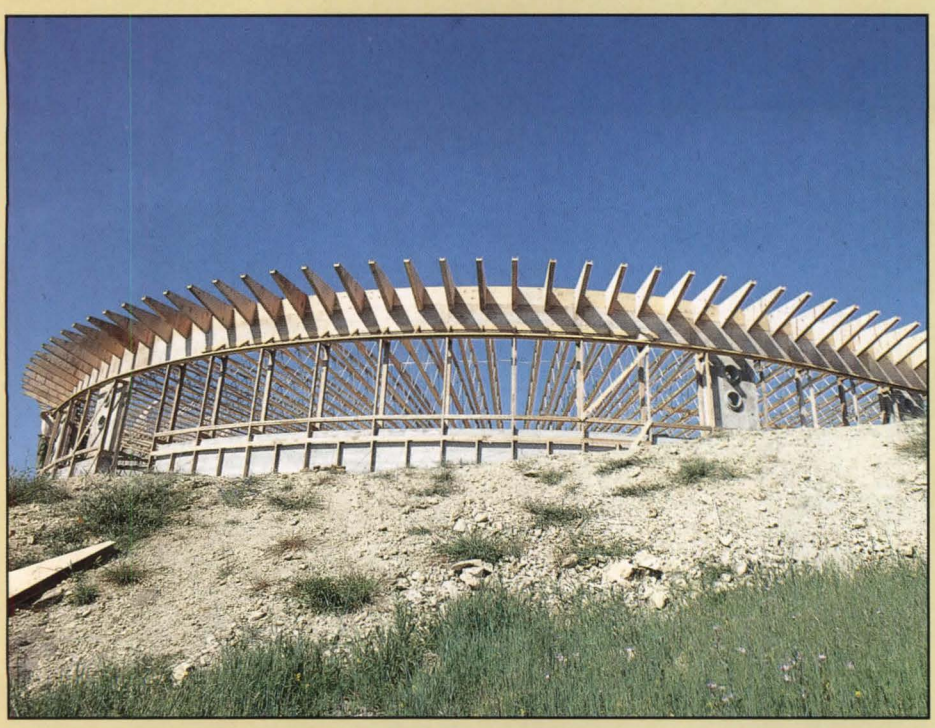
The protection and exhibition of ruins present inherent conflicts, since the best protection of building remains often precludes their being shown in a way that enables visitors to imagine the form and character of the original structures. Swiss architect Peter Zumthor has handled that conflict brilliantly in his design for this enclosure over ruins.

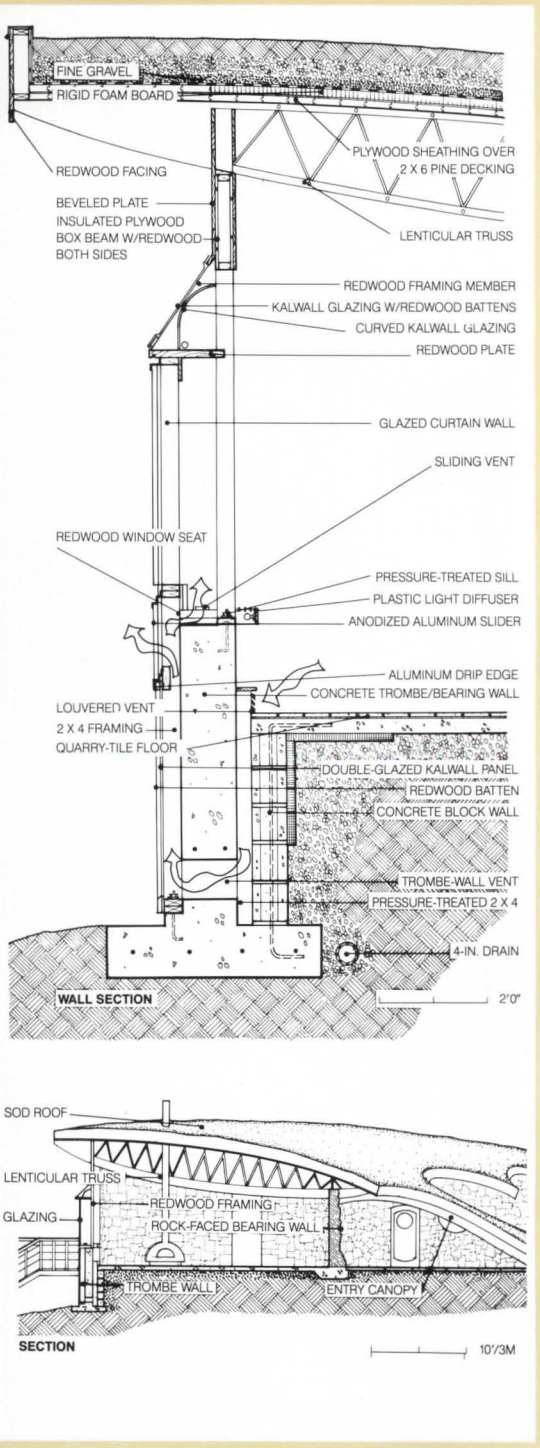
The ruins consist of the complete foundations of two Roman structures and the corner of a foundation for a third, the remainder of which is buried beneath a modern building. Zumthor designed wood framed structures that fit over the foundations and recreate, as close as archeologists can figure, the height and bulk of the original buildings. Laminated timber columns and trusses serve as the enclosures' structure. Horizontal timbers brace the columns, and diagonal steel rods prevent the structures from racking. The low, gabled roofs which have a tongue-and-groove deck and standing-seam metal roofing, culminate in large, projecting skylights at the center of each building that slope to the south and are set on a diagonal in plan.

The most striking feature of the structures is their cladding: horizontal wood slats. Set at a 30-degree angle, these slats diffuse the light and protect the foundations from rain and snow while providing for ventilation. Visually, they transform the buildings from apparently solid, nearly windowless enclosures during the day to light-filled, transparent structures at night. Steel angles attach the wood slat frame to the timber columns and beams.

The viewing of the ruins is accomplished in several ways. Two large, glazed openings facing the street give passers-by a view into the foundations. A steel-truss footbridge, entered from a steel-enclosed stoop at the side of the buildings, spans over the foundations and provides a view of them from above. And steel stairs (which, like the stoop, cantilever off the footbridge and appear to float above the ground) give visitors further access to the space within two of the foundations.

These enclosures provide a creative solution to the problem of protecting and showing ruins. They also provide a witty comment on the wood frame by combining the two traditions of timber and stick construction. The stick framing exposes the timber frame, at least at night, while the timber frame converts the stick framing into a nonstructural element by turning it on its side.



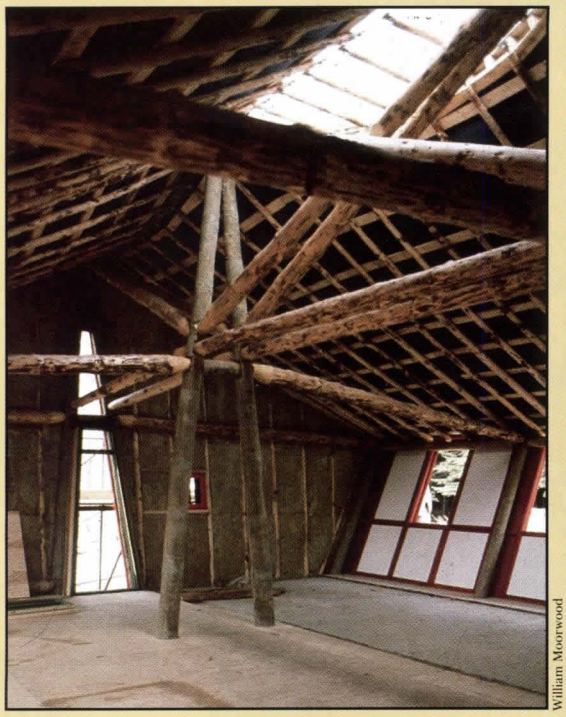


Project: Hill House, La Honda, California.
Architects: Jersey Devil.
Sunk into the top of a high hill overlooking the Pacific Ocean, this house stands in a designated scenic corridor, requiring that it be unobtrusive, and in the direct path of *Pacific storms*, requiring that it hug the ground. The house was designed and built by Jersey Devil, a firm noted for its handcrafted detail and its unusual practice of living on or near the construction site of each structure it builds.

Lenticular trusses, with wood chords and steel tube webs, were a prime determinant of the house's form. The trusses, which fan out toward the views of the Pacific, rest on a stone bearing wall at one end and on a wood-framed wall at the other. Spanning 24 feet, the trusses are 14 inches deep at their bearing points and 32 inches deep at their midpoint; they support a pine tongue-and-groove roof deck, a four-ply roof, and a gravel and sod covering.

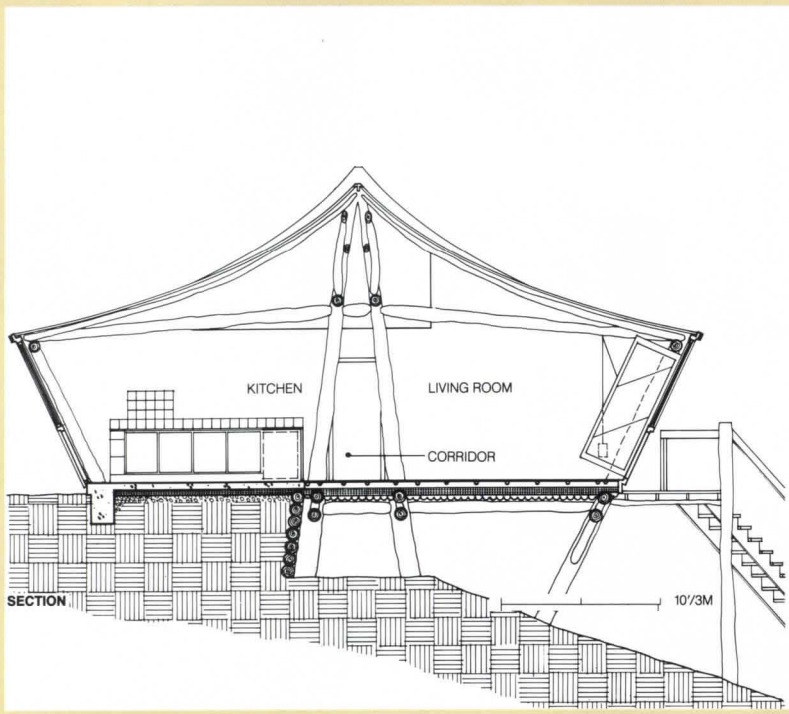
The stud wall is framed with 4x4 redwood posts bolted to a concrete foundation that doubles as a Trombe wall. Cold air is drawn through vents along the floor, down the back of the foundation wall, and back up its front, where a 2x4 redwood-framed curtain wall with Kalwall glazing serves as a heat trap. The warm air is exhausted either to the outside in warm summer months or to the interior in winter through vents in the window ledge. Redwood battens are used to fasten the Kalwall to the curtain wall, and a redwood plate connects the framing to the interior posts.

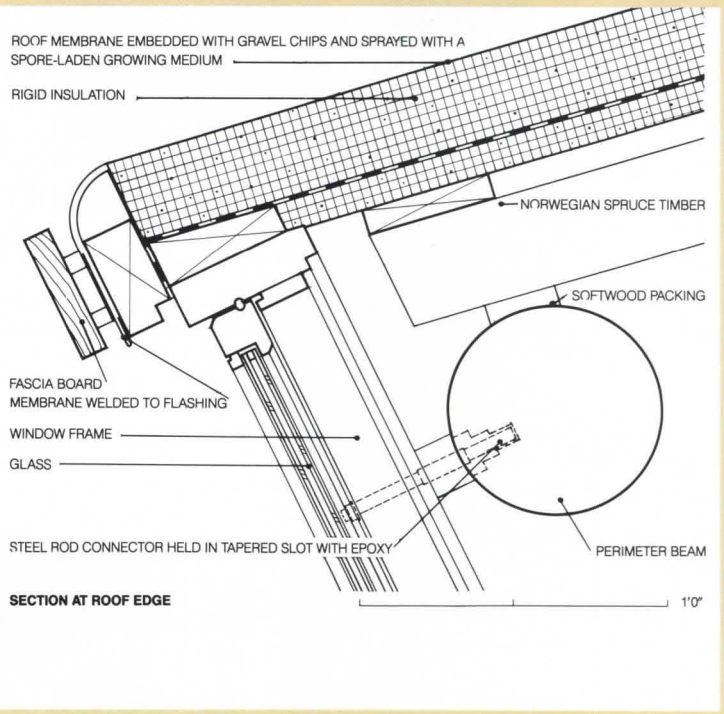
The nonstructural interior partitions, wood framed with cement plaster on expanded metal lath, take a variety of shapes. As Steve Badanes of Jersey Devil writes, "Some are straight, some bowed; others are warped or undulating." That reinforces a point made throughout the house: the flexibility of wood framing. In places, the framing in this house seems to take on a life of its own. It bows up under the weight of the sod roof, fans out to the views to the south, wiggles about to enclose interior rooms, and as a finale, cantilevers 20 feet over the front door. Such a sense of wood's expressive potential shows the fruits of working with the material on site, something Jersey Devil does exceedingly well.



William Moorwood

William Moorwood





Project: School for New Woodland Industries, Hooke Park, Dorset, England.
Architects: Ahrends Burton & Koralek with Frei Otto as consulting architect and Buro Happold as structural and services engineer.
This building is the first of several structures for a School for New Woodland Industries, which will train people in the design, manufacture, and marketing of new products using an otherwise wasted resource: forest thinnings. Intended as a demonstration in the use of the round, unsawn timbers, this building will serve as a residence for the school.

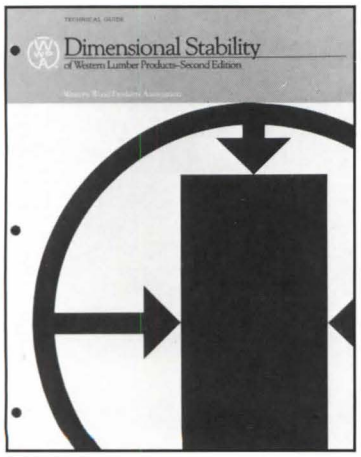
The structure contains four timber A-frames that are connected by diagonal bracing and that support tensioning ridge cables. These A-frames run through the center of the building, defining a corridor, and are connected by horizontal members to outwardly canted timbers that frame the outside walls. All timber connections are made with steel rods adhered with epoxy.

The roof structure utilizes slender spruce timbers that bend under the dead and live loads. These unsawn rafters rest on eave timbers (with softwood packing used for leveling) and are clipped to the ridge cables that are slung between the A-frames. Sawn boards bridge between these timbers to support the rock fiber insulation and roof membrane.

The forest thinnings were used green, so the design had to accommodate the shrinkage that would occur as the wood dried. The tension roof, for example, not only reduced the amount of timber necessary to carry the load, but easily adjusted to shrinkage of the rafters themselves. During construction, the rafters were prestressed to the ultimate curvature of the completed roof by being tied down to the floor structure.

In some ways, this project brings George Washington Snow's invention of the balloon frame full circle. While he developed stud construction because heavy timbers had become too costly and rare in Chicago in 1832, this project uses heavy timber construction because such material, left over from the thinning of forests, is all too common and worth almost nothing on the market. Snow also changed our view of wood as an engineered material. Having been successfully applied to sawn lumber, that idea is here applied to the very material that prompted Snow's discovery in the first place.

Technics-Related Products

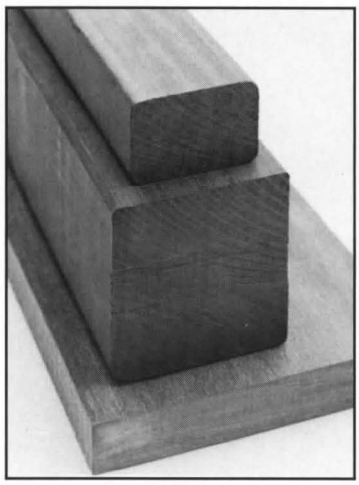


"Dimensional Stability of Western Lumber Products," now available in its second edition, contains completely revised sections on shrinking and swelling, moisture content, and seasoning wood. Tables show specific dimensional changes for different kinds of western wood. Western Wood Products Association.
Circle 225 on reader service card

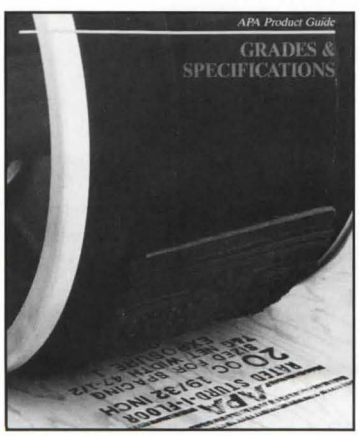
A 48-page timber connector catalog features wood-to-wood and wood-to-concrete connectors made of galvanized steel. The products range from joist hangers to wall bracing to shelf brackets; the catalog's technical data includes allowable loads for each product. Simpson Strong-Tie.
Circle 226 on reader service card

Southern Pine Maximum Spans For Joists and Rafters, a 30-page brochure, provides information on maximum spans for wood structural members, taking into account such variables as live load, spacing, and lumber grade. A conversion diagram allows easy calculation of lengths for sloped rafters. Southern Forest Products Association.
Circle 227 on reader service card

Optimum Value Engineering (OVE) is a method of comparing materials and methods of wood framing to determine the least expensive solution. A guide to using OVE in home building, available for $7.00, includes tables, diagrams, and detail drawings that illustrate its applications. NAHB Research Foundation, Inc., 400 Prince George Center Blvd., Upper Marlboro, MD 20772-8731.



Pau Lope is an especially dense and rot-resistant wood imported from Brazil. Its resistance to splitting, splintering, and warping makes it useful in outdoor applications, as does its 60-year life expectancy. Greenheart Associates, Inc.
Circle 228 on reader service card

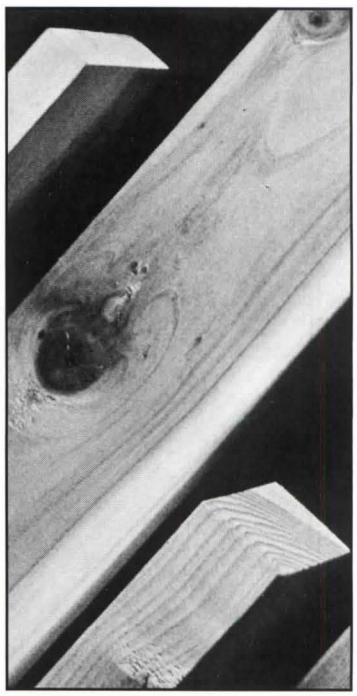


"Grades and Specifications," a 27-page product guide, serves as a reference on structural wood panels, explaining manufacturers' trademarks, specifications, installation, and ordering. American Plywood Association.
Circle 229 on reader service card

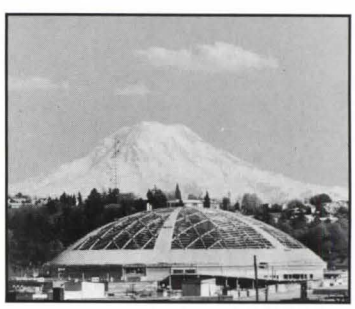
Triax timber domes utilize glued laminated construction to provide clear-span circular spaces for a variety of uses. Advantages of the system include lightness of weight and reduced jobsite labor. The manufacturer will provide design assistance, fabricate and deliver components, and perform construction services where requested. Unit Structures, Inc.
Circle 230 on reader service card

Cast aluminum post bases provide sturdy anchoring for wooden posts and protect them from moisture. The bases can be anchored in dry concrete, and the sandblasted surface does not require finishing. Cleveland Steel Specialty Co.
Circle 231 on reader service card

Glued laminated beams are economical, attractive, and reliable, according to an eight-page brochure which offers photographs and data pertaining to "glulam" beams. The information includes typical details, steel-to-wood conversion tables, and maximum span tables. American Institute of Timber Construction.
Circle 232 on reader service card



"Lumber Grades and Uses" gives a brief description of the more than thirty different grades of redwood lumber available for general and specialized uses. Additional information on patterns, grains, and textures is also provided. California Redwood Association.
Circle 233 on reader service card



Wood domes like this company's Tacoma Dome offer advantages such as ground-level assembly, construction savings of up to 20 percent, and large clear spans for interior flexibility. Diameters can range from 80 to 800 feet. Western Wood Structures, Inc.
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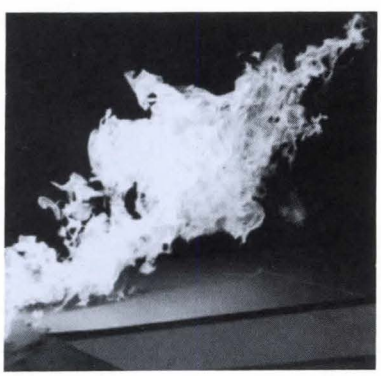
(See Technics, Wood Framing, p. 90)

IT'S 1988
DO YOU KNOW WHICH CODES APPLY TO YOUR NEXT JOB?

Building codes and insurance requirements are getting tougher to understand.

Specifications are being written tighter than ever. Local code approvals, insurance requirements and thermal performance specs are all common in today's roofing projects. Failure to comply can be costly for specifiers and contractors.



Associated Foam Manufacturers saw the trend toward tighter code compliance several years ago and began a number of programs to meet these always changing requirements. Because codes are written for complete roof assemblies and components, many combinations of materials have to be tested. At AFM, extensive product and system testing and an ongoing, independent third party quality control program have been established. AFM plants nationwide are familiar with the local code and insurance requirements for roofing.

Insulations that solve the codes.

Perform® and Contour Taper Tile® EPS Roof Insulations from AFM have been thoroughly tested by Underwriters Laboratories and meet the requirements of local building codes. When you specify EPS from a local AFM plant, you can be sure it will meet the job specifications and local code requirements. EPS insulation contains no CFC's.

AFM testing includes...

- Flame spread and smoke developed characteristics, using ASTM E-84 and UL 723 surface burning test standards.
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- Roofing assembly testing for all the systems you use...single-ply, BUR, modified bitumen for combustible and non-combustible decks using ASTM E-108 and UL 790 test standards.
- A quality control and follow-up program conducted by an independent third party laboratory recognized by national and local code bodies.
- Product quality good enough to give the building owner a 20-Year Thermal Performance Warranty.

Insulation warranty increased to 20 years.

AFM's program of continuous independent testing and quality control certifies product quality before the EPS leaves the plant. That's why AFM Certified Quality EPS can be warranted to maintain 100% of the Industry Standard R value for a period of twenty years — the longest Thermal Performance Warranty in the roofing industry.

Write for your copy of the Warranty and for AFM's guide to insulation specifications.

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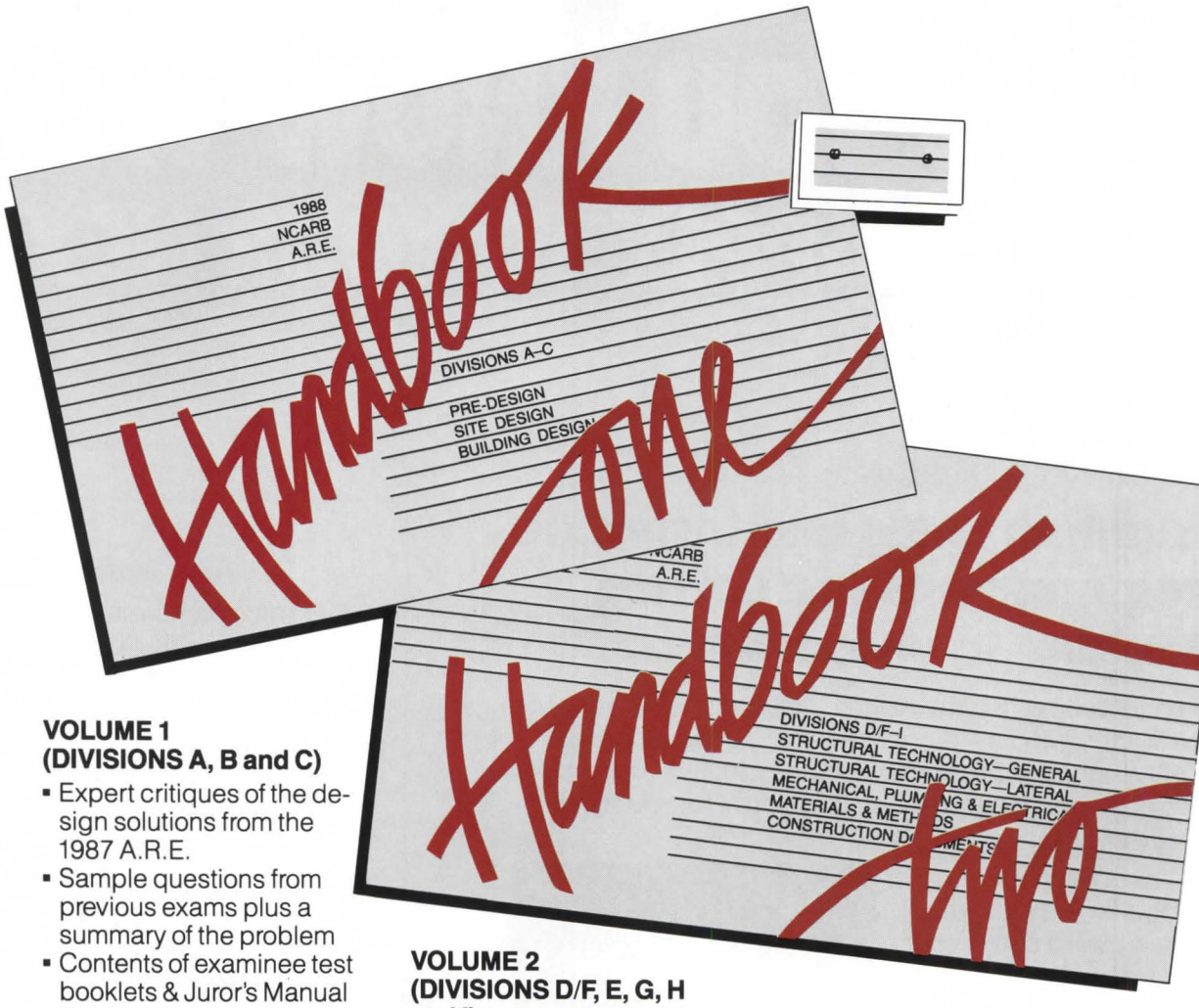

VOLUME 1
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- Expert critiques of the design solutions from the 1987 A.R.E.
- Sample questions from previous exams plus a summary of the problem
- Contents of examinee test booklets & Juror's Manual
- Practical advice on preparing for the June exam
- Updated bibliographies for Divisions A, B and C

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(DIVISIONS D/F, E, G, H and I)

- Sample exam questions from previous exams
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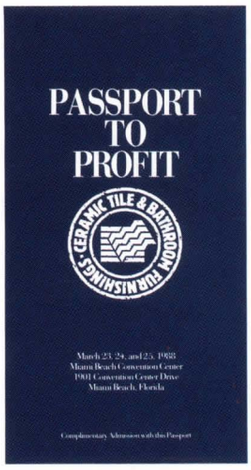
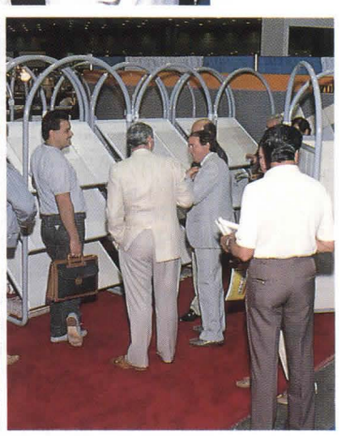


THE WORLD EXPOSITION OF CERAMIC TILE & BATHROOM FURNISHINGS

Miami Beach Convention Center
March 23, 24, 25, 1988



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overall project.

D. Where and how PC GlassBlock® elements are incorporated.

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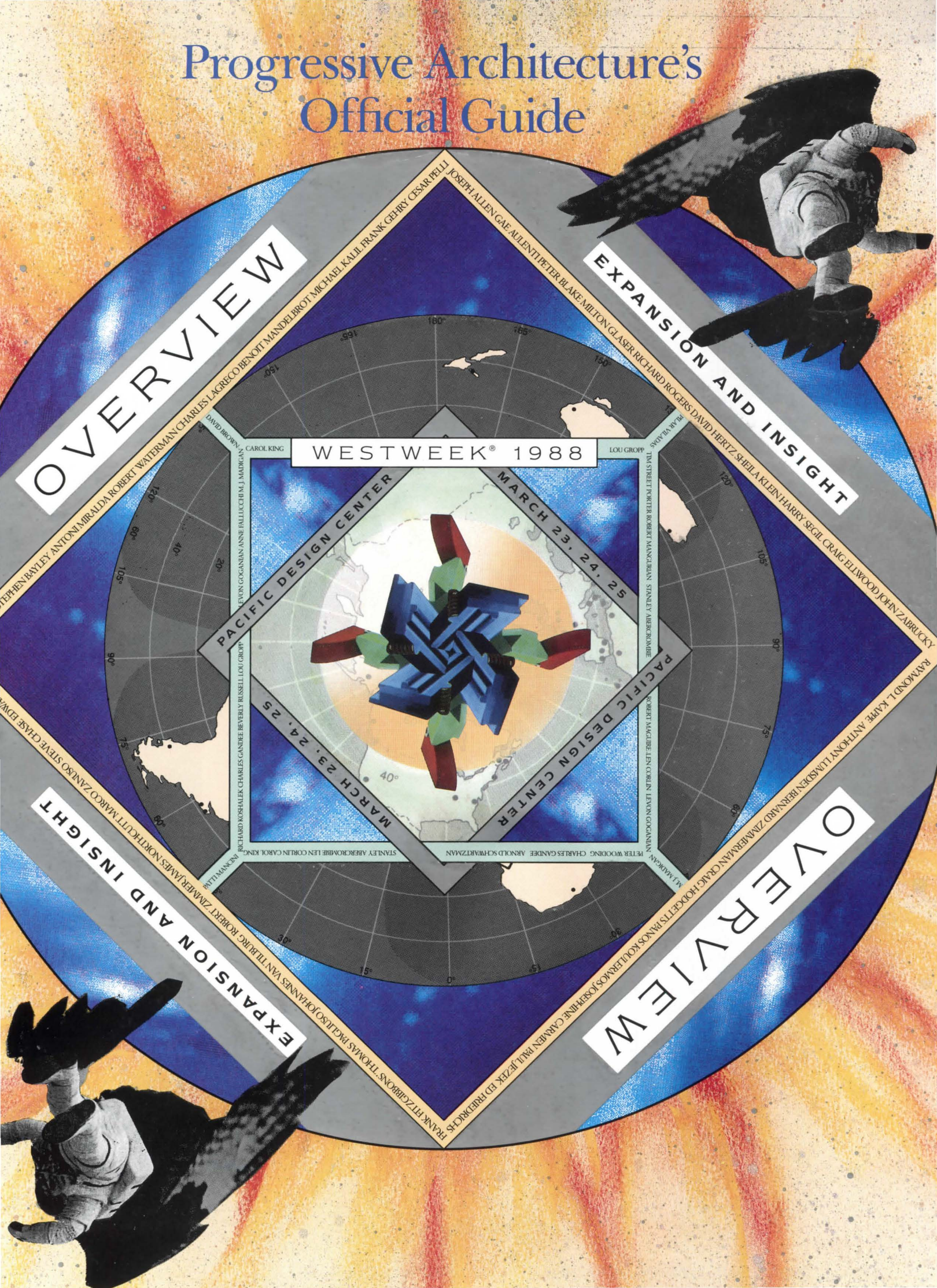
Progressive Architecture's Official Guide



The view from the top.

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for Baker Furniture.

Pierre Paulin expands the vista of exe
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Grand Rapids, Michigan 49505.

Baker
EXECUTIVE OFFICE

Circle **No. 311**

Showroom Directory

B300 Adden Furniture
213/657-4463
B257 Alba Industries, Inc.
213/659-9160
B377 Allsteel Inc.
213/659-2000
B134 American Seating★
213/652-6531
B241 Arc-Com Fabrics★
213/659-0376
B660 Architex International
G176 213/659-0958
B266 Artemide, Inc.★
213/659-1708
B235 Atelier International★
213/659-9402
B525 Baker, Knapp & Tubbs
213/652-7252
B256 Beelner & Thomas★
213/657-1046
B255 Benedetti
Corporation★
213/659-2930
B600 Boyd Lighting
213/855-1313
G299 Brayton
B260 Brickel
213/659-1667
B272 D.S. Brown
213/659-1239
B209 Brueton
213/659-1434
B653 Brunschwig & Fils
213/659-9800
B116 Campaniello Imports/
Saporiti Italia
213/854-0900
B682 Manuel Canovas
213/657-0587
B146 Carnegie Fabrics
213/652-7090
B605 China Seas, Inc.
213/854-1030
Condi (see Pacific Condi)
B110 CorryHiebert★
213/675-6051
B600 Devin Company
213/855-1313
B213 DesignTex Fabrics★
213/659-9900
M16/M28 Domore
213/655-8421
B226 Executive Office
Concepts★
213/659-6566
B267 Fixtures Furniture
213/659-8302
B245 Forms + Surfaces
213/659-9566
B200 GF Furniture Systems
213/655-0001
B384 GMT Floor Tile
213/657-8101

B253 Geiger International★
213/659-7411
B543 Greeff Fabrics
213/657-6616
B210 The Gunlocke Co.★
213/657-8922
B261 Harter Contract★
213/657-5780
B444 Hastings Tile & Il Bagno
213/652-7360
B193 Haworth, Inc.★
213/652-2210
B239 ICF, Unika-Vaev USA★
213/659-1387
B146 Images of America
213/659-7090
B260 Interna Designs
B141 International Tile
213/652-2647
B328 Italdesign Center, Inc.
213/659-6764
B146 JG Furniture Systems
213/652-7090
B146 JANUS et Cie
213/652-7090
B270 Kasparians★
213/659-2968
B404 Kenro Light
213/659-6510
B230/G480 Kimball/Artec★
213/659-1543
B119 Kirk-Brummel Associates
213/652-6078
B600 Kittinger
213/855-1313
B600 Kneedler-Fauchere
213/855-1313
B203 Knoll International★
213/658-8686
B639 Koch + Lowy, Inc.
213/659-5660
B530 Boris Kroll Fabrics
213/652-9067
B222 Krueger, Inc.
213/659-2133
B146 Kusch, USA
213/652-7090
B601 Jack Lenor Larsen, Inc.
213/659-7770
B678 Lee Jofa
213/659-7777
B370 Maharam★
213/659-9575
G467 Marble Technics
213/969-8309
B542 McGuire Company
213/659-2970
M-4 Meridian
213/655-8421
B362 Metropolitan Furniture
213/659-4981
B229 Herman Miller, Inc.★
213/659-7600

B208 Modern Mode
213/659-3192
BM-9 Monel
213/659-4060
B275 Monteverdi-Young, Inc.
213/659-7220
B367 Mueller
213/854-5867
BM-9 Nienkämper
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B219 Pacific Condi Focus★
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M-4 Panel Concepts
213/655-8421
BM-9 Paston/Rawleigh
213/652-4060
B266 Ron Rezek★
213/659-1708
B211 Ben Rose
213/655-8790
B499 F. Schumacher & Co.
213/652-5353
B368 Shaw-Walker
213/659-2299
B274 Shelby Williams Industries
213/657-8687
B305 Steelcase★
213/659-5005
B201 Stendig International/
Vitra Seating★
213/659-7955
B380 Stow & Davis★
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B526 Stroheim & Romann
213/659-7700
B206/207 SunarHauserman★
213/657-2030
B250/662 Westinghouse
Furniture Systems★
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B208 Zographos
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116 No. Robertson Blvd.
213/657-7600
Barksdale Rudd at
Contract Associates
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213/477-2744
Gretchen Bellinger at
J. Robert Scott & Associates
8737 Melrose Ave.
213/659-4910
Donghia
8715 Melrose Blvd.
213/657-6060
Dunbar at
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120 No. Robertson Blvd.
213/652-5450
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Xception at
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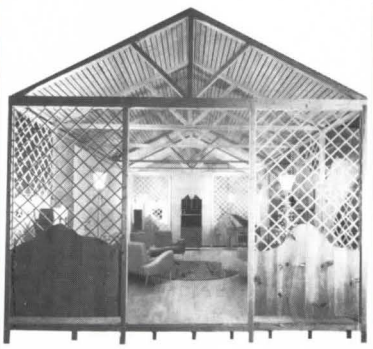
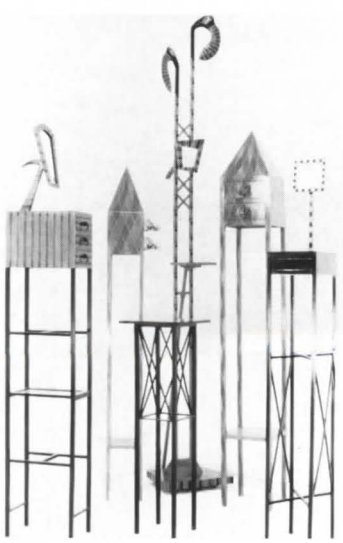
213/937-0492

Schedule of Events



A proposed environment from Icons: A New Eclecticism.

Objects designed by Luigi Mainolfi, Angelo Cortesi, and Peppe Di Guili, from Icons: A New Eclecticism.



Collection of pieces from Imperial Woodworks.

Exhibitions (March 23–25)

Amphitheater, PDC Plaza
Artists' Flags: International Flags Designed by Eleven International Artists.

Rotunda, First Floor Lobby-Blue
California Collaborations
Sponsor: PDC 2

First Floor Lobby-Blue
L.A. 12 + 12: An Overview
Sponsor: AIA, Los Angeles Chapter

Third Floor Atrium-Green
The Imperial Woodworks, Fantastical Designs Created by Brian G. James and David Davies.
Sponsor: UK/LA, Crafts Council, Great Britain

Fifth Floor Galleria-Blue
Icons, A New Eclecticism
Sponsor: ICE, Italian Institute for Foreign Trade

Fifth Floor Atrium-Green
L.A. Creates
Sponsor: ATC, Distributing Corporation

Sixth Floor Rotunda-Blue
Steve Chase: A Californian's Perspective
Sponsor: *Designers West*

Seventh Floor Atrium-Green
Lloyd's of London: An Overview
Sponsor: UK/LA, Lloyd's of London

Wednesday, March 23

9:00 A.M.
Showrooms open

9:30 A.M.–10:30 A.M.
The PDC Theatre-Green
"The View from Space." Astronaut Joseph P. Allen, Ph.D. Welcome: James Goodwin, Vice President, Director of Marketing Communications, Pacific Design Center. Introduction: The Honorable Patti Mancini, Vice President, Government Relations & Communications, Rockwell International.
Sponsor: North American Space Operations, Rockwell International Corporation

Joseph P. Allen, Ph.D.

10:45 A.M.–11:45 A.M.
West Hollywood Auditorium
"Art, Architecture, Theatre & Design, Personal Insights." Gae Aulenti, Architect. Introduction: Richard Koshalek, Director, Museum of Contemporary Art, Los Angeles.
Sponsor: IBD, Southern California Chapter, and Knoll International

12:00 M.–1:00 P.M.
The PDC Theatre-Green
"New Faces in Design." Moderator: Louis Oliver Gropp, Executive Editor, *House & Garden*. Panel: Jed Johnson, Designer; Patrick Naggar, Designer; Mark Zeff, designer.
Sponsor: *House & Garden*

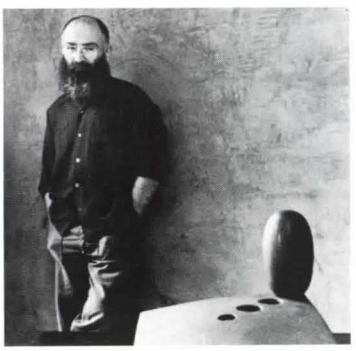
Gae Aulenti

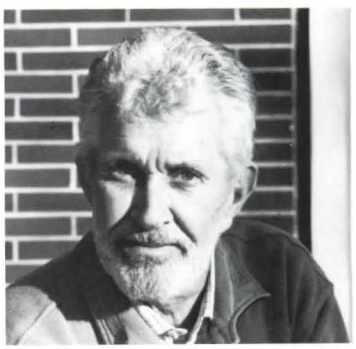
Peter Shire

1:15 P.M.–2:15 P.M.
West Hollywood Auditorium
"L.A. Creates." David Hertz, Architect; Harry Segil, Designer; John Zabrucky, Designer; Peter Shire, Artist. Introduction: Tim Street-Porter, Photographer/Design Critic.
Sponsor: ATC, Distributing Corp.

2:30 P.M.–3:30 P.M.
The PDC Theatre-Green
"Space: Individual & Place." Michael Kalil, Designer. Introduction: Beverly Russell, Editor in Chief, *Interiors*
Sponsor: PDC 2

3:45 P.M.–4:45 P.M.
West Hollywood Auditorium
"L.A. Architecture, 12 + 12: An Overview." L.A. 12-1976: Craig Ellwood, Hon. AIA; Raymond L. Kappe, FAIA; Anthony J.H. Lumsden, FAIA; Bernard Zimmerman, FAIA. L.A. 12-1988: Craig Hodgetts, Architect; Charles Lagreco, AIA; Panos Koulermos, AIA, RIBA; Robert Mangurian, Architect. Introduction: Peter Blake, Chairman, Department of Architecture and Planning, Catholic University of America.
Sponsor: AIA, Los Angeles Chapter


Michael Kalil


Craig Ellwood

5:00 P.M.–6:00 P.M.
The PDC Theatre-Green
"Originality, Plagiarism, Eclecticism." Milton Glaser, Graphic Designer. Introduction: Deborah Sussman, Principal, Sussman/Prejza.


Milton Glaser

Thursday, March 24

9:00 A.M.
Showrooms Open

9:00 A.M.–10:00 A.M.
The PDC Theatre-Green
"The Renewal Factor." Robert H. Waterman, Jr., author. Introduction: Anne Fallucchi, Editor/Associate Publisher, *Facilities Design and Management.*
Sponsor: Steelcase

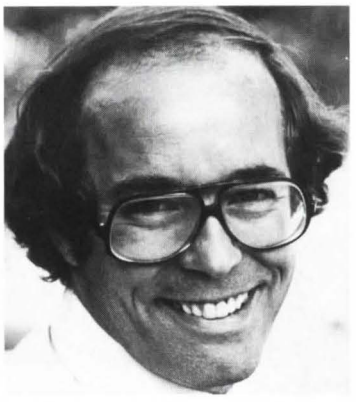

Robert H. Waterman, Jr.

10:00 A.M.–11:00 A.M.
The PDC Theatre-Green
"Library Square." Henry Nichols Cobb, FAIA, I.M. Pei & Partners; Robert F. Maguire, III, Co-Managing Partner, Maguire Thomas Partners. Introduction: Timothy H. Walker, President, PHH Walker.

11:00 A.M.–12:30 P.M.
The PDC Theatre-Green
"California Collaborations: Manufacturers, Designers & Clients." J. Frank Fitzgibbons, Principal, J. Frank Fitzgibbons Studio; John Follis, President, Follis Design; Ed Friedrichs, Vice President, Gensler & Associates; Paul Jezek, Partner, Chatterton Jezek; Gere Kavanaugh, Principal, Gere Kavanaugh Designs; Thomas R. Pagliuso, Chairman and Principal, Media 5; Johannes Van Tilburg, Principal, Johannes Van Tilburg & Partners. Introduction: Josephine Carmen, Director of Design Operations, PHH Walker.
Sponsor: PDC 2


Gere Kavanaugh

12:45 P.M.–1:45 P.M.
West Hollywood Auditorium
"Earth & Space: Expanding Perspectives." Gentry Lee, Chief Engineer for Project Galileo, Jet Propulsion Laboratory. Introduction: Len Corlin, Editor/Co-Publisher, **Contract**

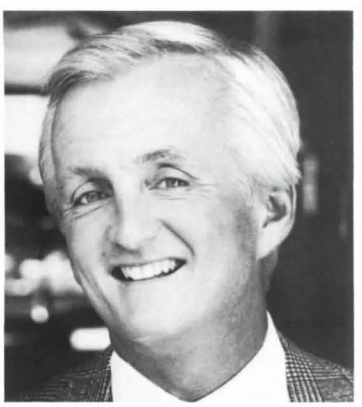

Gentry Lee

2:00 P.M.–3:00 P.M.
The PDC Theatre-Green
"Theatre Inventions and Insights." Marco Zanuso, Architect. Introduction: Stanley Abercrombie, Editor, *Interior Design.*
Sponsor: AIA, Los Angeles Chapter

3:15 P.M.–4:15 P.M.
West Hollywood Auditorium
"Hana Ranch, Maui: A Hospitality Overview." James Northcutt, President, James Northcutt Associates; Thomas R. Pagliuso, Chairman and Principal, Media 5; Robert Zimmer, President, Rosewood Hotels. Introduction: M.J. Madigan, Editor in Chief, *Restaurant & Hotel Design.*
Sponsor: *Restaurant & Hotel Design*


Marco Zanuso


Robert Zimmer


Steve Chase

WESTWEEK

1 9 8 8

4:30 P.M.–5:30 P.M.
The PDC Theatre-Green
"Style & Insights, A Californian's Perspective." Steve Chase, Designer. Introduction: Carol King, Ph.D., Editor in Chief, *Designers West*.
Sponsor: *Designers West*

6:00 P.M.–8:00 P.M.
PDC Showrooms
Hospitality Events in all participating showrooms.

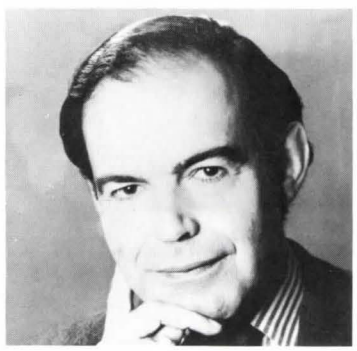
Fifth Floor Galleria
Opening reception, Icons: The New Eclecticism. Alberto Maria Prina, Architect. Introduction: Giuseppe Di Miglia, Italian Trade Commissioner, Atlanta, Ga.
Sponsor: ICE, Italian Institute for Foreign Trade.

First Floor Rotunda
Opening reception, California Collaborations. Sponsor: E.I. duPont de Nemours & Co. Antron Fibers Carpet Division.

Friday, March 25

9:00 A.M.
Showrooms Open

9:00 A.M.–11:15 A.M.
West Hollywood Auditorium
"Expanding Creativity Beyond Yes & No." Edward de Bono, Ph.D. Introduction: David Brown, President, Art Center College of Design.
Sponsors: ASID Industry Foundation, E.I. duPont de Nemours & Co., Antron Fibers Carpet Division



Edward de Bono, Ph.D.

11:30 A.M.–12:30 P.M.
The PDC Theatre-Green
"Fractals: The New Geometry, Imitating the Clouds and the Mountains." Benoit Mandelbrot, Ph.D., IBM Fellow, Professor Mathematical Sciences, Yale University. Introduction: Peter Wooding, IDSA, President, President Peter Wooding Associates.

Benoit Mandelbrot, Ph.D.

12:45 P.M.–1:45 P.M.
West Hollywood Auditorium
"Lloyd's of London: An Overview." Richard Rogers, RIBA. Introduction: Beverly Russell, Editor in Chief, *Interiors*
Sponsor: UK/LA, British Airways

2:00 P.M.–3:00 P.M.
The PDC Theatre-Green
"Architectural Insights, A Conversation with Two Masters." Frank Gehry, FAIA, and Cesar Pelli, FAIA. Introduction: Pilar Viladas, Senior Editor, *Progressive Architecture*.
Sponsor: AIA, Los Angeles Chapter

Richard Rogers

3:15 P.M.–4:15 P.M.
Conference Center-Blue
"Design Insights: Commerce & Culture." Stephen Bayley, Director, The Design Museum at Butler's Wharf. Introduction: Arnold Schwartzman, Graphic Designer.
Sponsor: UK/LA, British Airways

Cesar Pelli

Stephen Bayley

Antoni Miralda

4:30 P.M.–5:30 P.M.
The PDC Theatre-Green
"Rituals & Feasts: From Celebration and Consumption to Performance Art." Antoni Miralda, Artist. Introduction: James Goodwin, Vice President, Director Marketing Communications, Pacific Design Center.

7:00 P.M.–10:00 P.M.
PDC Plaza
Phase II Opening Celebration and The Party! Featuring Otto Piene, Director, The Institute for Advanced Visual Studies, MIT. Tickets $32.50 per person (includes a $10.00 tax-deductible donation to the Murray Feldman Gallery.)

Introducing Kimball's new line of pool tables.

We've pooled all the tables from all of our casegood lines, designed some new tables, and made them all available under one program: Tables by Kimball. • Thousands to choose from. Contemporary, traditional and in between. End tables, coffee tables, round tables, square tables. Tables without legs, tables with pedestals. • To find out more about Tables by Kimball, all you have to do is give us the cue. Call 1 (800) 482-1616.

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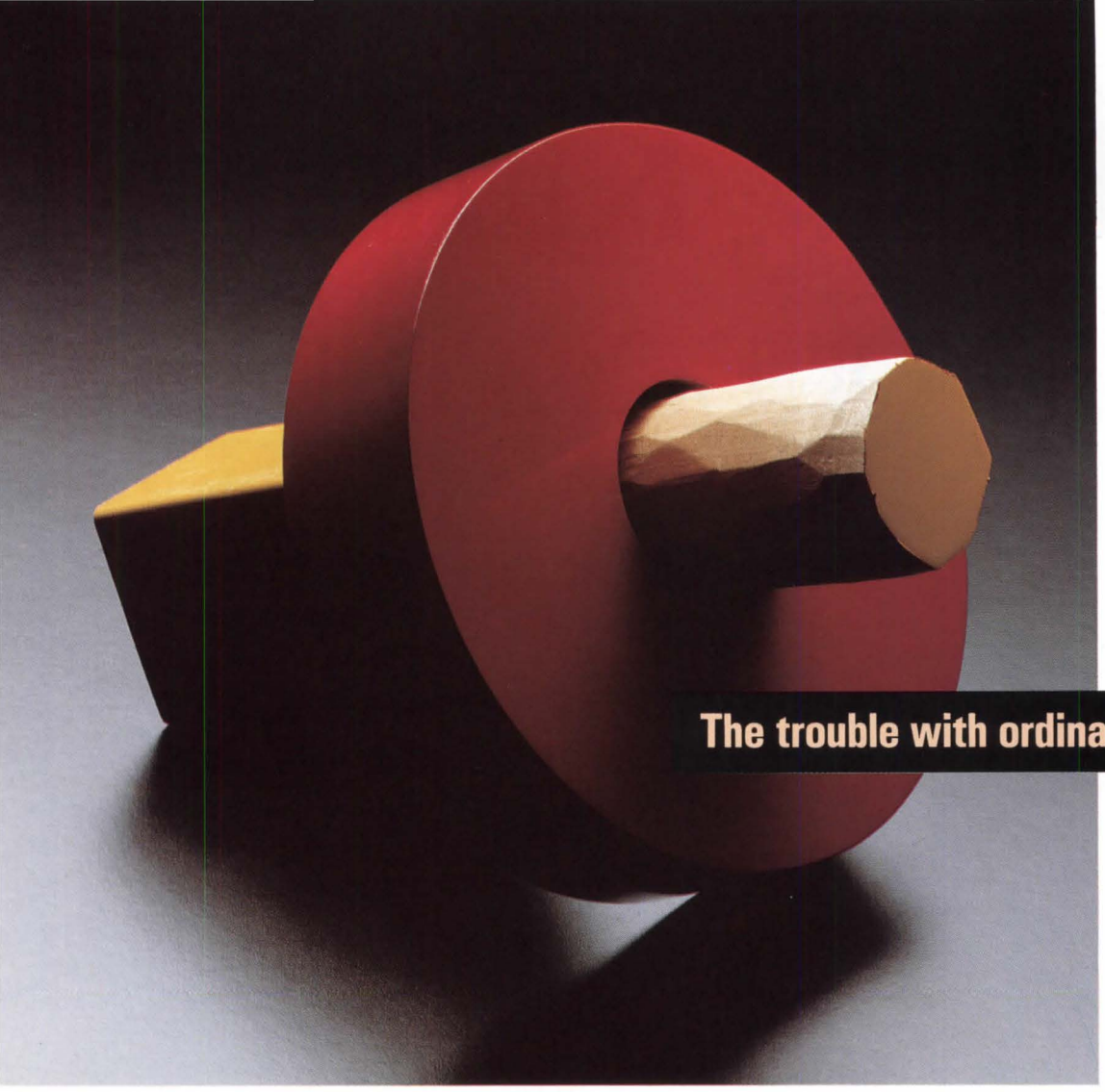

The trouble with ordinary furniture systems.

Your client wants one design statement throughout the office—on a tight budget. You know that's practically impossible, but...

Or, your client wants to merge three divisions into one and install a furniture system with a high-profile design statement—but keep all existing furniture. You can visualize the aesthetic disaster, but...

Or, your client thinks that by just putting a hot new look into a cold old building, you can transform it into a silk purse. You know better, but...

So you compromise, compromise, compromise.

No longer.

Introducing new **Elective Elements.**®

A furniture system that gives you literally thousands of combinations to play with. A choice of wood or non-wood components. A list

of surface materials that includes eighty-three fabric selections, eleven wood veneers, six laminates, and eight paint colors. Even the option of radial or rectilinear top caps and worksurface edges. Not to mention sophisticated wire and cable management. The result: unheard-of design flexibility.

The job of specification, installation, and reconfiguration is a cinch —in the Steelcase tradition. Also worth noting: the price spread between wood and non-wood components means your clients can afford to use new **Elective Elements** top to bottom, front to back.

No trouble.

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A Division of Steelcase Inc.
The Office Environment Company

For more information, call 1-800-447-4700

What makes Studimo Plus comparable to custom cabinetry?

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Telephone: 212/750-0900

Studimo Plus, like custom cabinetry, is available in custom heights, widths and depths for wall-to-wall, floor-to-ceiling installation. And, like custom cabinetry, Studimo Plus comes in a wide selection of wood veneers. Even the price is about the same as custom cabinetry.

Here is where the similarity ends. Studimo Plus, unlike custom cabinetry, has a satin-smooth, hard, deep, carefree, clear hand-rubbed finish and sophisticated custom designed hardware that makes possible pocket doors, pull-out and focusing computer housing, built-in lighting, built-in refrigerators, etc... Also, unlike custom cabinetry, Studimo Plus is made up of movable, replaceable modular components. This makes a big difference both when one considers tax savings and when *one contemplates* retro-fit.

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Product Introductions

Adden Furniture
The Beveled Desk series offers select plane-sliced red oak veneer surfaces with solid red oak edges and drawer fronts. The series complements both the Roommate and Health Care Collections.
Circle 100 on reader service card

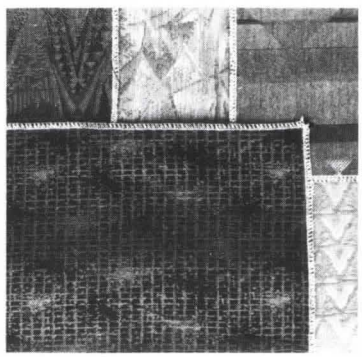
Alba Industries
Visa ergonomic seating is constructed from laminated oak and walnut veneers. Specifiers may select from eight standard wood finishes and over 700 fabrics.
Circle 101 on reader service card

Allsteel
Bühk 100 Seating, designed by Peter Bühk, includes management, professional, operational and side chair models. Fingertip controls adjust tilt and height.
Circle 102 on reader service card

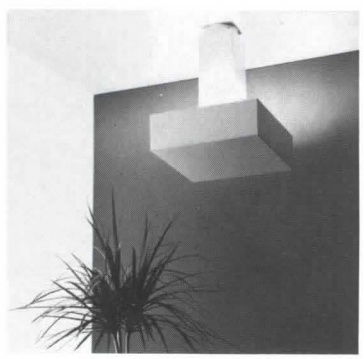
American Seating
A new series of lateral files designed to integrate with System R office furniture offers options in height, width, storage capabilities, and finishes.
Circle 103 on reader service card

American Standard
Ceramix, a luxury faucet line, is available with or without a liquid crystal display giving the water temperature. Finishes include brass, chrome, bone, white, gold, and white with gold trim.
Circle 104 on reader service card

Arc Com
A 100 percent cotton printed velvet, Vienna is a small-scale pattern based on turn-of-the-century designs and available in four colorways.
Circle 105 on reader service card



Architex
Introduced by Liz Jordan-Hill, this series of silk and cotton jacquard designs is 54 inches wide and incorporates traditional and jewel tone colorways.
Circle 106 on reader service card

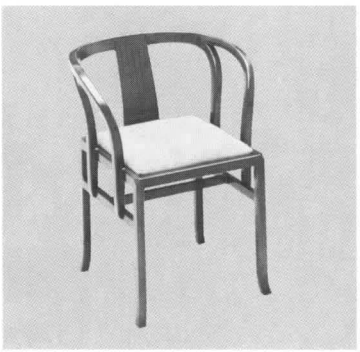


Artemide
Plantone ceiling lamp, designed by Ettore Sottsass, is 14 inches wide with an 18-inch overhang. It is constructed of painted white metal.
Circle 107 on reader service card

WESTWEEK

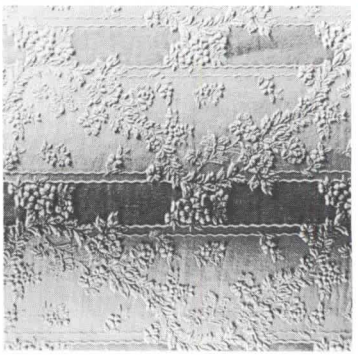
1 9 8 8

Atelier International
Architect Achille Castiglioni designed Moni, a 100-watt incandescent ceiling lamp which emits light through evenly spaced metal rods, creating a starburst effect.
Circle 108 on reader service card

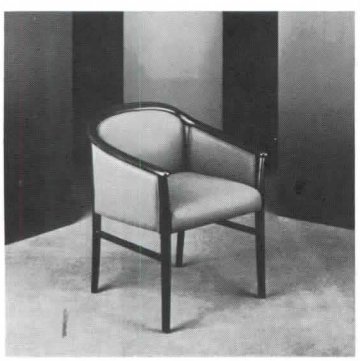


Baker, Knapp & Tubbs
This visitor chair complements Pierre Paulin's collection of desks, credenzas, side, and conference tables. The chair features a slightly flared leg and a walnut inlay.
Circle 109 on reader service card

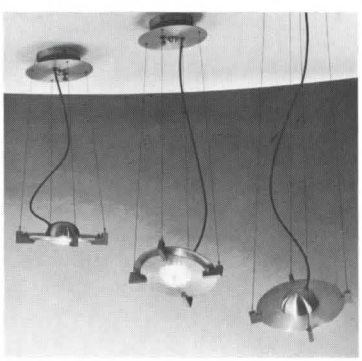
Barksdale Rudd
Vesuvio BR 1000 Series and Palatine BR 501 Series are both drum-dyed, full aniline leathers. Vesuvio may be specified in four colorways while Palatine is offered in five.
Circle 110 on reader service card



Gretchen Bellinger
Woven in Italy, Garlands™ is a 100 percent silk jacquard with vertical ribbons of satin weave accented by floral garlands. Ivory-cream, silver-taupe, and pink-beige colorations are available.
Circle 111 on reader service card

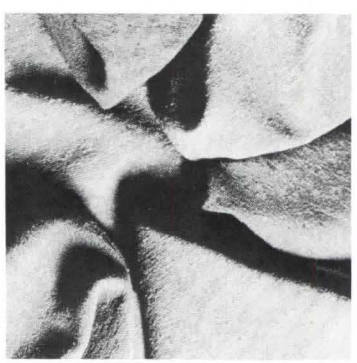


Benedetti
The Debut chair, designed by Kim Furstenwerth and Jim McCarthy, can be specified in a variety of Benedetti fabrics, wood finishes, leather, or COM.
Circle 112 on reader service card



Boyd Lighting
Tilt 36, a brass and aluminum pendant lamp, features lockable, angular adjustability for targeted light. Satin aluminum or silver granite finishes may be specified.
Circle 113 on reader service card

Brayton
Available in fabric or leather upholstery on a beechwood frame, the Christy chair stacks easily for a variety of uses.
Circle 114 on reader service card



Brickel Associates
Featuring a large scale textured diagonal pattern, Joie de Vie is a cotton, bouclé viscose jacquard/tapestry weave which is offered in six colorways.
Circle 115 on reader service card

Introducing the
ISO Marble Wall Panel System

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We take the occasion of the opening of our new **West Coast Showroom** to introduce a revolutionary concept in wall paneling —the **ISO MARBLE PANEL**— a thin lightweight full-size composite panel faced with a 1/4" thin veneer of natural marble. These large 2' x 8' panels can be hung on walls like plywood paneling.

Long a leader in supplying quality natural stone products to the design industry, **MARBLE TECHNICS** offers a wide variety of products and services. Literally hundreds of **Marbles, Granites,** and **Stones** from all over the world are available in tiles and slabs. Special projects are executed to designed requirements.

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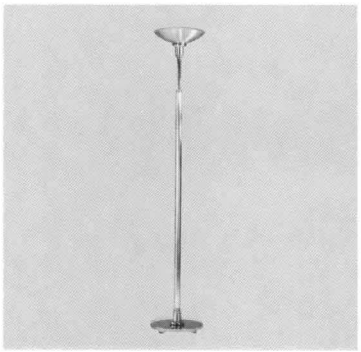
WESTWEEK

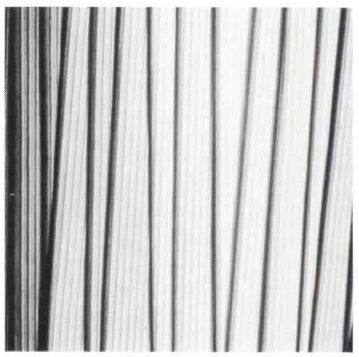
1 9 8 8

D.S. Brown
A new stacking chair, also available as a side chair, features a laminated beech armrest and steel frame construction.
Circle 116 on reader service card

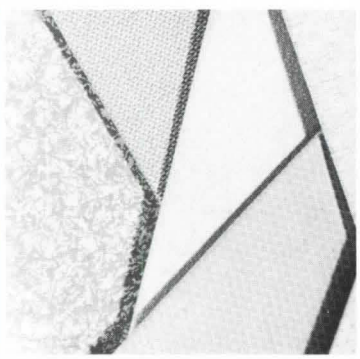


Brueton
Stanley Jay Friedman designed the Olympus Torchiere halogen lamp for residential or corporate applications. A range of high gloss opaque, polished or satin finishes may be selected.
Circle 117 on reader service card

Brunschwig & Fils
Tabriz Tapestry, an acrylic, viscose, and cotton blend, resembles a cross-stitch-embroidered fabric. The rose pattern is available in several colorways, including coral and taupe on a dark walnut background.
Circle 118 on reader service card



Manuel Canovas
Available in 52 solid colors, Falbalas is a 51-inch cotton, rayon blend designed by Manuel Canovas.
Circle 119 on reader service card



Carnegie
A new traditional wallcovering collection features 38 designs in 247 colorways, including paper-backed jacquard weaves for direct wall applications.
Circle 120 on reader service card

China Seas
Printed in Switzerland, Jardin Exotique 100 percent cotton fabric may be selected in blue, green, mauve, or tobacco and is 54 inches wide.
Circle 121 on reader service card

Condi
Charles Gibilterra's Hastings series of executive guest chairs offers a sculpted seat and back cushions on a bentwood frame.
Circle 122 on reader service card

Design Tex
Part of the Renaissance II Collection, Monet is a jacquard, wool blend upholstery fabric featuring a floral motif. Dove, sand, lilac, and pine are four of the 15 available colors.
Circle 123 on reader service card

WESTWEEK

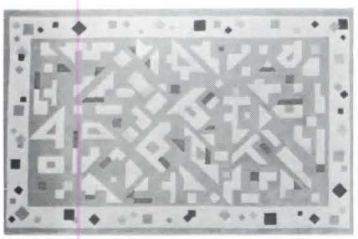
1 9 8 8

Devin
This line of oversized television cabinets, offered with or without a mirrored back, can be custom finished in wood veneers, hand-rubbed lacquers, faux-skins, or faux-stones in custom sizes up to 70" x 36" x 92". Side doors provide access to tape storage.
Circle 124 on reader service card

Domore
This pull-up side chair with an elbow-shaped "rocker" is also available with a sled base. Bill Stephens designed the chair, part of the complete 1800 Series collection.
Circle 125 on reader service card

Donghia Furniture
The Noble Club chair, one of three new club chair designs by John Hutton, offers an Art-Deco-inspired curved back and wedge-shaped arms.
Circle 126 on reader service card

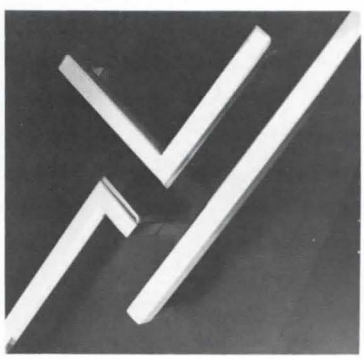
Dunbar
The Berne edition allows modular units and freestanding pieces to be configured into small systems work stations or large executive offices. Mahogany, cherry, and veneers are available.
Circle 127 on reader service card



Edward Fields
Bellissimo takes its peach, pink and gray colored pattern from the inlaid floors of the Mediterranean region. The pure wool rug is available in custom sizes and colors.
Circle 128 on reader service card

Executive Office Concepts
The Terrace Chair, which may be specified with a solid oak or walnut hardwood frame, stacks for easy storage.
Circle 129 on reader service card

Fixtures Furniture
Designed by George Lange, Rhombus stacking chair features a fold-up seat and optional arms.
Circle 130 on reader service card



Forms and Surfaces
Hexagonal tubular sections of bronze, brass, and stainless steel are used to fabricate the HD7600 Series of doorpulls, which also offers engraved lettering.
Circle 131 on reader service card

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The Newhouse Group

FREESTANDING WORK SPACES

An inspired definition

Newhouse Group furniture—mid-priced, freestanding furniture that makes it easy to create a space to fit the work habits of anyone on the organization chart.

Sixteen sizes of Table Desks (in laminate, re-cut, or full-cut veneers) coordinate with matching storage alternatives—Pedestal Drawers, Lateral Files, Side Cars, Credenzas, Bow Front Cabinets.

An economical option to paneled cubicles...

A way to introduce more space and openness to the office...

An innovative approach to the problems caused by frequent reorganization...

Compatible with all Herman Miller open-plan products—the Action Office and Action Office Encore systems and Ethospace interiors...

Seating, systems, and now freestanding furniture—the beginning of yet another trend in the art of furniture design. From the company that understands how people work in an office...

For more information call 1·800·851·1196 from anywhere in the U.S. or Canada.

1987 IBD Gold Award, desk and credenza category

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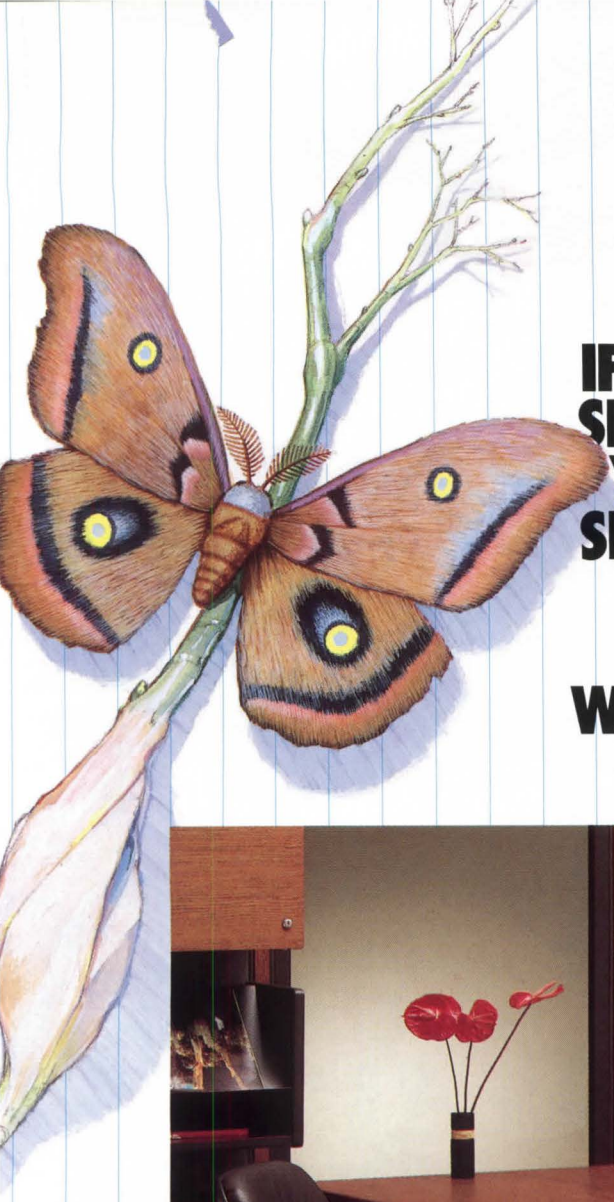

IF YOU HAVEN'T SEEN US LATELY, YOU HAVEN'T SEEN US AT ALL.

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We think you'll be pleasantly surprised when you look at Westinghouse.

You'll see the Wes-Group™ Ultra Panel, our new, industry-exclusive panel design. You'll see a generous fabric line, including Textura™ patterns, that were developed in collaboration with Jack Lenor Larsen; you'll see the visual harmony of the sensitive color and texture palette and you'll see it all as a part of the industry's most flexible system...and a system that's backed with a lifetime warranty.*

Open your eyes to Westinghouse. It may just change the way you look at your client's needs.

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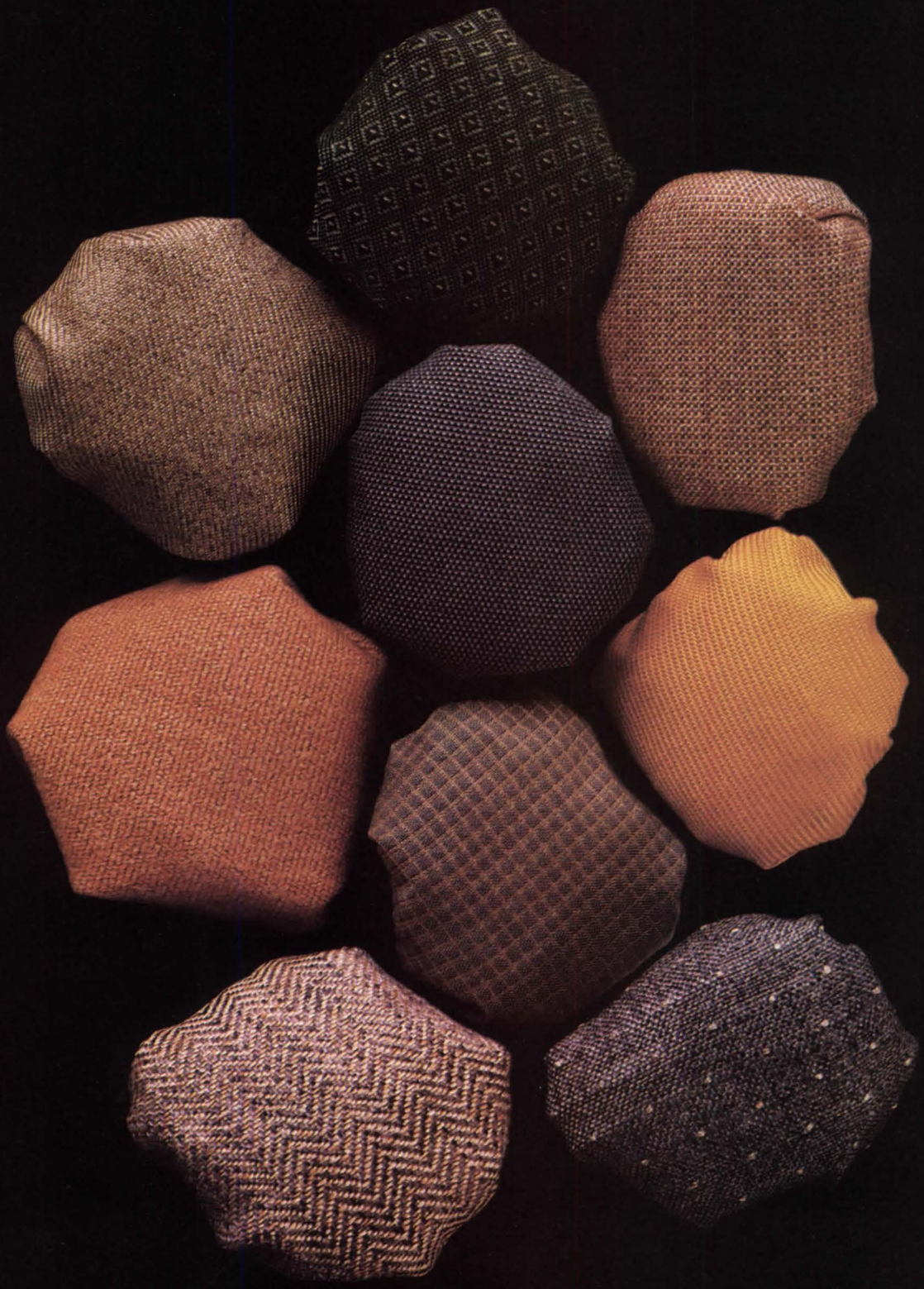
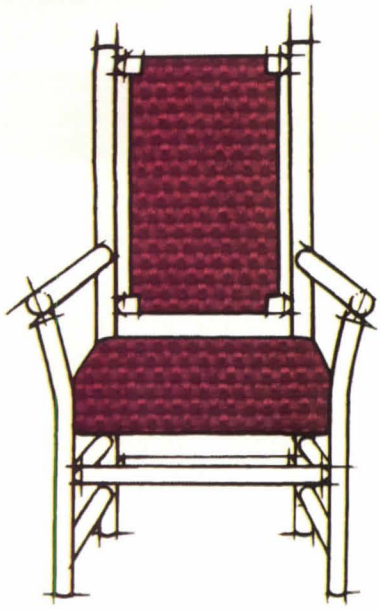
You can be sure . . . if it's Westinghouse

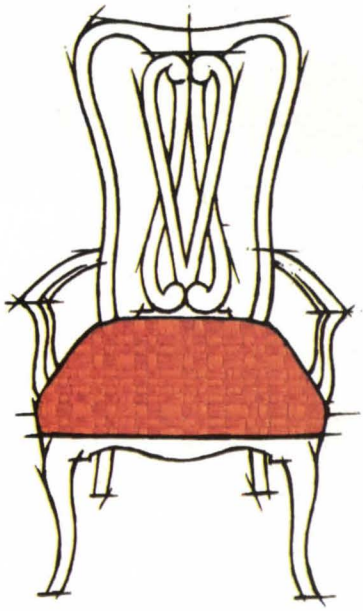
*Limited warranty for the normal lifetime of the new Wes-Group Ultra Panel and associated Wes-Group products. Some exclusions do apply.

For natural good looks and supernatural wear...

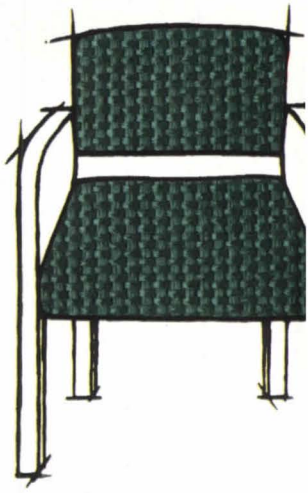




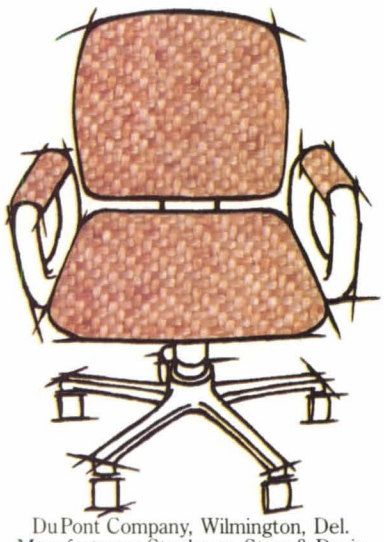
Piñon Grill restaurant,
Hilton of Santa Fe, Santa Fe, N.M.
Manufacturer: Old Hickory Furniture Co. Inc.
Designer: Joyce K. Wynn Inc.



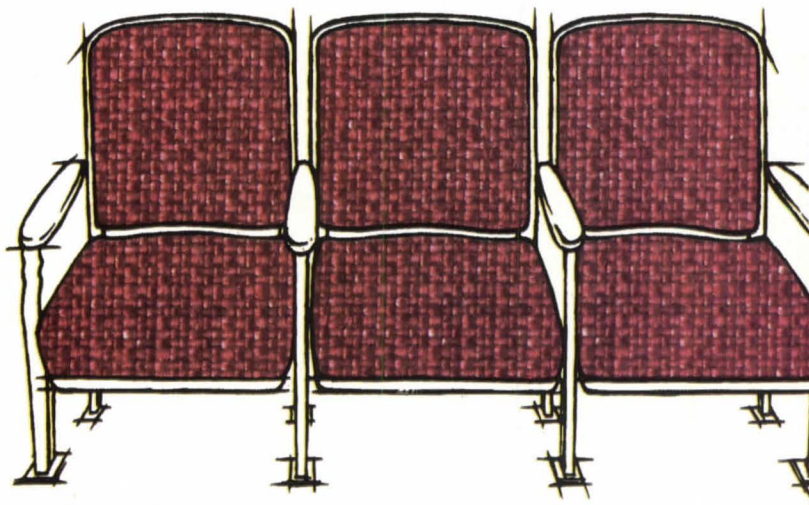
Lawson Enterprises Inc., Lansdale, Pa.
Designer: Bert Laudenslager,
Whitemarsh Interiors Inc.



Mercy Hospital South, Pineville,
Manufacturer: Nemschoff Chairs
Designer: Lisa Harris, Mitchell A

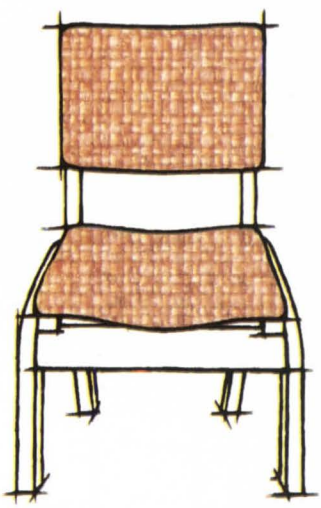


Du Pont Company, Wilmington, Del.
Manufacturer: Steelcase, Stow & Davis
Designer: Beverly Thomes,
Contract Environments

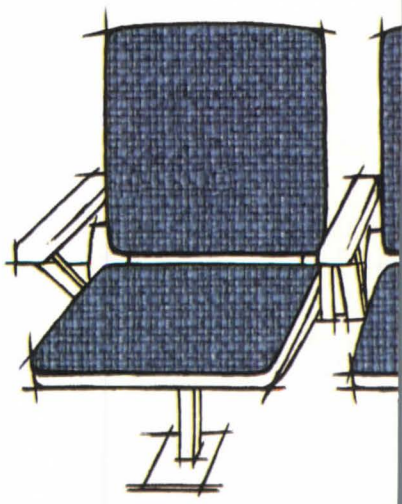


The Alice Busch Opera Theatre,
Glimmerglass Opera, Cooperstown, N.Y.
Manufacturer: Country Roads
Designer: Hardy Holtzman Pfieffer Assoc.

Garden Café restaurant,
Sheraton Smithtown, Smithtown, N.Y.
Manufacturer: Shelby Williams Industries Inc.
Designer: Corbusier

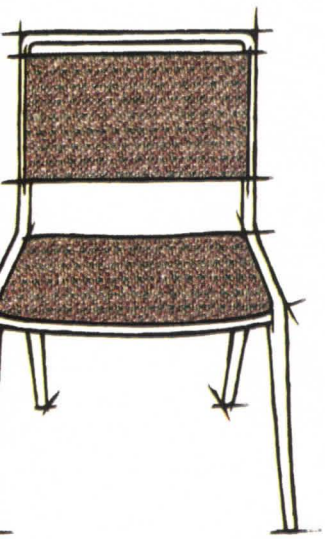


Central Michigan University cafeteria,
Mt. Pleasant, Mich.
Manufacturer: Sauder Manufacturing



Auditorium seating by American Seating

The best seats in the house are covered with Cordura®



nd Convention Center, Cleveland, O.
actuer/Designer: Fixtures Furniture

Office seating
by Rudd International Corp.

Here are some of the many "new faces" of CORDURA. No matter which you pick, your seating is sure to be good-looking and long-lasting.

Everybody knows that for tough and lasting upholstery fabrics, there's nothing like Du Pont CORDURA* nylon. As you can see on these pages, CORDURA not only wears terrifically, it looks terrific as well.

And nowadays, fabrics of CORDURA come in an ever-expanding range of styles, colors, weaves and textures, from wovens to velours and suedes. They're as pleasing to the touch as they are to the eye.

No wonder fabrics of CORDURA are showing up all over—in hotels and motels, in restaurants, schools, hospitals, theaters, offices and the like. Wherever you need a blend of durability and good looks, CORDURA is a natural.

It's a snap to keep CORDURA looking good, too. Fabrics of CORDURA are easy to clean and quick to dry.

So for natural good looks combined with supernatural wear, insist on CORDURA. Call (215) 855-7765 for samples and the names of fabric suppliers. Or write Du Pont Company, CORDURA for Upholstery, 100 West Main Street, Lansdale, PA 19446.

*Du Pont registered trademark for its air-textured, high-intensity nylon fiber.
Du Pont makes fiber, not fabrics.

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Nothing comes close to Cordura® for performance

More stringent modified Wyzenbeek Abrasion Test

Polypropylene failed at 164 double rubs

Spun nylon failed at 445 double rubs

CORDURA hardly affected after 445 double rubs. Failed at 1,464.

The durability of CORDURA is way ahead of competitive fabrics like polypropylene and spun nylon.

CORDURA exceeds the standard Wyzenbeek Double Rub Abrasion Test by such a wide margin that testing was stopped at a million double rubs. Nothing else even comes close to that kind of performance.

And in a more stringent Wyzenbeek Test—the results of which you see here—CORDURA outlasted the other fabrics by far.

What's more, CORDURA can take spills and messes and come back looking as good as ever. If stains occur, just be sure to follow the recommended stain removal methods printed below.

Recommended Stain Removal Methods*

STAIN	REMOVAL METHOD
Coffee, Fruit Juice, Milk, Soft Drinks, Tea, Tabasco Sauce, Wine, Urine	Detergent[1]/blot/water/blot
Catsup, Chocolate, Blood	Detergent/blot/ammonia[2]/blot/water/blot
Mustard	Detergent/blot/vinegar[3]/blot/water/blot
Spicy mustard (turmeric), Kool-Aid*	Solvent[4]/blot/detergent/blot/vinegar/blot/water/blot
Cooking Oil, Crayon, Lipstick, Mayonnaise, Motor Oil, Shoe Polish	Solvent/blot/detergent/blot/water/blot
Chewing Gum	Freeze with ice cube/scrape/solvent/blot/detergent/blot/water/blot
Furniture Polish, Ink (Permanent)	Paint remover[5]/blot/solvent/blot/detergent/blot/ammonia/blot/vinegar/blot/water/blot
Furniture Polish, Shoe Polish	Seek the help of a professional upholstery cleaner

Notes on Cleaning Agents

The following procedure should be used with all cleaning agents. A clean, white cloth dampened with the recommended cleaning agent should be used in an inconspicuous place to test for colorfastness. Optimum cleaning will be achieved by not overwetting the cloth and by turning it frequently to keep it clean. Rings can be avoided by working from the outer edge of the spot toward the center. This process should be repeated until the spot is removed or there is no further transfer to the cloth.

[1]Detergent	One teaspoon neutral powder detergent (e.g., "Tide" or "All") in 1 pint warm water
[2]Ammonia	A 3% solution
[3]Vinegar	White vinegar or 10% acetic acid
[4]Solvent	Dry cleaning fluid—preferably 1,1,1 trichloroethane
[5]Paint remover	Paint remover with no oil in it

NOTE: Oily and greasy stains—In addition to the recommended method, some stains (e.g. perspiration/body oils) respond well to dry cleaners such as "HOST" (Racine Industries), "CAPTURE" (Milliken) and "K2R" (Texize). Carefully follow directions on the label.

*Recommendations based on fabrics finished with Du Pont Teflon® Soil & Stain Repellent. The methods were effective on stains that were allowed to sit untreated overnight. Removal is usually easier when stains are cleaned immediately.

DUPONT

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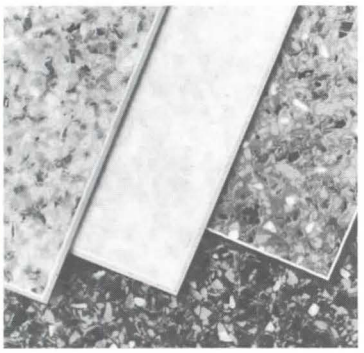
WESTWEEK

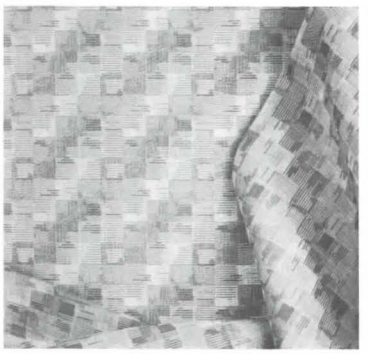
1 9 8 8

GF
Designed by Charles Schreiner and Travis Randolph, the Stratum collection of freestanding work units includes a desk, storage systems, and panel systems.
Circle 132 on reader service card



GMT Floor Tile
Satin and gravel finishes expand the Granite collection of laminated vinyl floor tiles. All tiles are offered in 13 colorways, and in sizes up to 36" x 36".
Circle 133 on reader service card

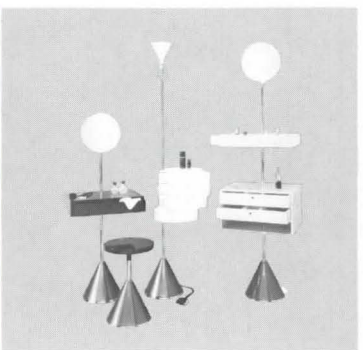
Geiger International
Inspired by the Vienna Workshops of 1902, the Jugendstil Collection offers wood finishes in black, red, and mahogany along with arabescato marble and black granite accents. Upholstery fabrics reflect the original period designs in addition to a full range of leather colors.
Circle 134 on reader service card



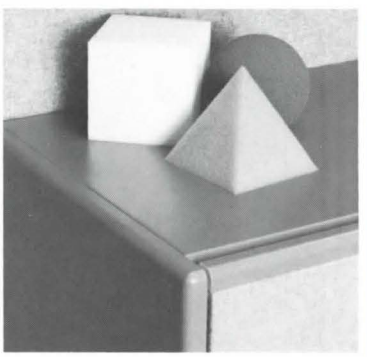
Greeff
Giacometti, part of the Entity line of contract fabrics, may be specified in several colorways, including sage and mulberry, windsor and garnet, terra cotta and olive, or rose and opal.
Circle 135 on reader service card

Gunlocke
Introduced at Designer's Saturday, the Exel 3™ family of tables and executive, management, and guest seating merges ergonomics with a rectilinear shape for business environments.
Circle 136 on reader service card

Harter Contract
The Wallaby Collection of office seating groups, designed by Australians Edward Alexander and Peter Robinson, offers a high-back with closed arms model or a medium-back armless, cantilevered guest chair.
Circle 137 on reader service card



Hastings Tile & Il Bagno
Composed of modular elements stacked on a weighted steel pole, the Zelig vanity system may be selected in white, black, gray, red, or yellow. Drawers can be used as removable trays.
Circle 138 on reader service card



Haworth
A new surface finish program for office interiors increases finish options through a wide range of elements of various dimensions.
Circle 139 on reader service card

WESTWEEK

1 9 8 8

ICF
Latonda, a small armchair designed by Mario Botta, consists of black-epoxy-coated steel tubing and a perforated black or copper-green steel seat.
Circle 140 on reader service card

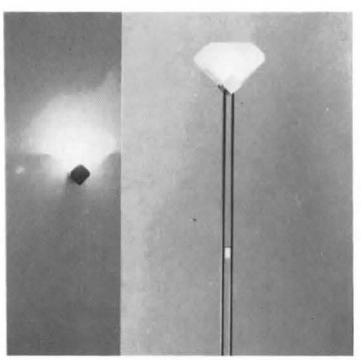
IPF International
This new Lounge Chair is part of the Rattan & Woven Leather Collection and features a loose cushion and upholstered platform. Oil stain finishes include Orange, Sherbet, Espresso, Wheat, Honey, and more.
Circle 141 on reader service card

Images of America
The Joshua barstool, designed by French architect Pierre Chareau, and the Amadeus barstool are both available in a variety of finish options.
Circle 142 on reader service card

Italdesign
Introduced at the Milan Fair, 1987, the Antropovarius President high-back executive chair was designed by Ferdinand Porsche for Poltrona Frau.
Circle 143 on reader service card

JG
Introduced at Designer's Saturday, the Aura Series was designed in Holland by Claus Uredat.
Circle 144 on reader service card

Kasparians
The Benton lounge chair, designed by Gerald Zilly, features vertically channeled hardwood legs. The chair is 31 inches high.
Circle 145 on reader service card



Kenro Light
Designed by JT Kalmar of Vienna, the Gitter Floor Lamp and Wall Fixture are constructed of glass and baked-on anthracite.
Circle 146 on reader service card

Kimball/Artec
The Connex chair utilizes a patented synchro-tilt mechanism and a patented pivotal pressure point to sustain user comfort. Fingertip controls allow for easy adjustments.
Circle 147 on reader service card

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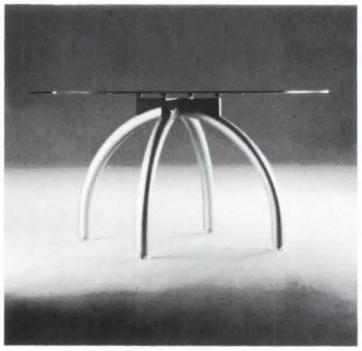
BRUNS

WESTWEEK

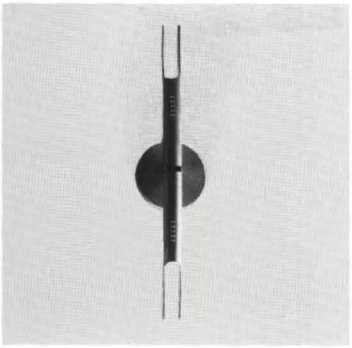
1 9 8 8

Kinetics
The 400/600 pedestal table for conference and work-station installations offers many color, veneer, and edge options.
Circle 148 on reader service card

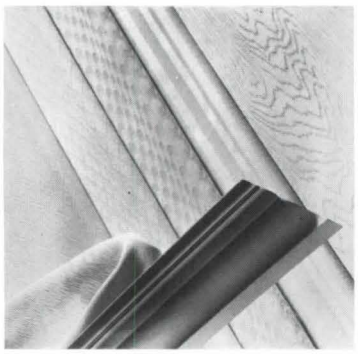
Kittinger
The Georgian Collection Desk stands on Chippendale style legs and Marlboro feet. An optional leather top with gold or blind tooling is available.
Circle 149 on reader service card



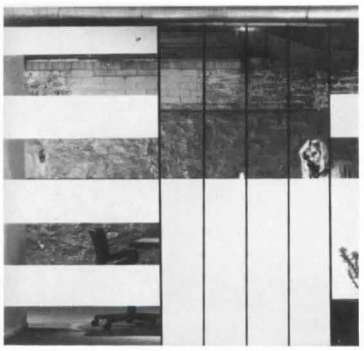
Knoll
Designed by Sottsass Associati, the Spyder table features a 53-inch circular glass top resting on four tubular steel arched legs. The connecting crossmember is offered in matte black or seven high-gloss finishes.
Circle 150 on reader service card



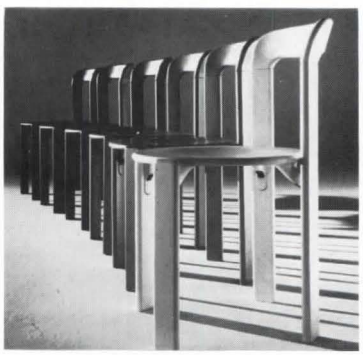
Koch + Lowy
Corpernicus may be specified in black or matte aluminum finishes. Piotr Sierakowski designed the 32-inch, 5-inch-deep wall lamp.
Circle 151 on reader service card



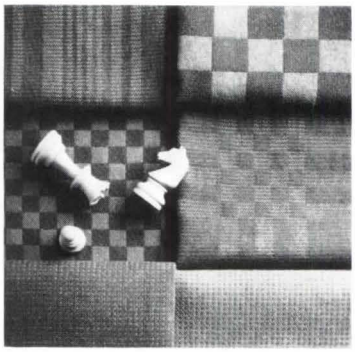
Boris Kroll
A new wall, panel, and drapery fabric program is made up of 100 percent cotton and cotton rayon blend fabrics.
Circle 152 on reader service card



Krueger, Inc.
An entire floor-to-ceiling Translight™ film-laminated glass panel can be made opaque or just specific sections can be changed. The panels are usable in full-height wall systems or open plan offices.
Circle 153 on reader service card



Kusch U.S.A.
Bruno Rey designed this wood seating system to be free of metal fasteners or screws. The chair is constructed from solid beech and formed plywood.
Circle 154 on reader service card



Jack Lenor Larsen
King's Cloth, Queen's Cloth, Knight's Cloth, and Chessboard make up the Tournament collection of worsted yarn fabrics. The patterns are available in silver gray with oyster white or charcoal with brown.
Circle 155 on reader service card

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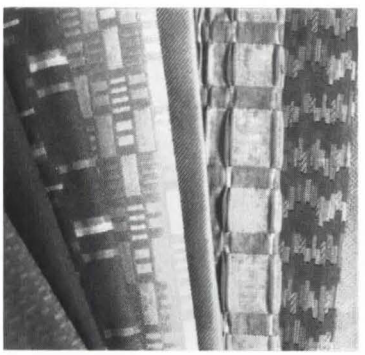
WESTWEEK

1 9 8 8

Lee Jofa
Part of the McMillen fabric collection, Alain is a cotton/linen toile printed in six colorations and has a 54-inch repeat.
Circle 156 on reader service card

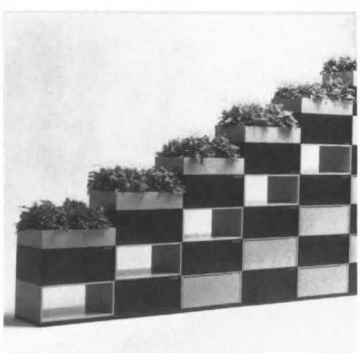
LigneRoset
Designed by Peter Maly, the Quartz modular cabinet system is based on 14-inch-square multiples that combine to produce several height and width variations. Hinged glass doors may be added to the system, which is offered in black or white.
Circle 157 on reader service card



Maharam
Jazz, Overture, Composition, Keyboard, Infinity, Mirage, Prism, and Summit are part of three new upholstery collections—Wool Reflections, Wool Portfolio, and Nylon Gallery—offering a total of 17 fabrics.
Circle 158 on reader service card

Marble Technics
A composite panel with ¼-inch natural marble facing, Iso Marble Wall Panel System can be dry mounted for greater flexibility. Available in 24 different types of marble, panels can be customized up to 4′ x 9′.
Circle 159 on reader service card

McGuire
New to the table collection, this oak dining table extends to 129 inches with extra leaves. Custom sizes are available with an oak top, or with a sub-top for use with marble.
Circle 160 on reader service card



Meridian
Offered in 37 standard baked-enamel colors in a range of drawer front styles and pulls, the Stackable Storage System allows units to be placed one on top of the other as high as desired.
Circle 161 on reader service card

Metropolitan
Designed by Brian Kane, the Metropolitan seating collection offers a choice of five arm variations and is available in walnut or maple, with leather or fabric upholstery.
Circle 162 on reader service card

Herman Miller
The Newhouse Group of freestanding furniture for use in private or open office systems includes tables, desks, pedestal desks, lateral files, credenzas, and VDT tables.
Circle 200 on reader service card


HarterAnthro
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WESTWEEK

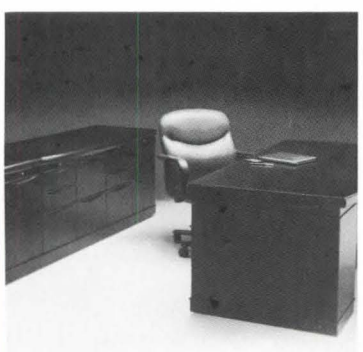
1 9 8 8

Modern Mode
The Arcus Series, part of the Architectural Options collection, includes a lateral file, corner and straight work surfaces, file pedestals, overhead cabinet, and pull-out keyboard tray.
Circle 201 on reader service card

Monel
Moderne upholstered armchairs, offered in an open or closed arm model, can be finished in matte black or lacquer options. Natural beech and ash can also be specified.
Circle 202 on reader service card

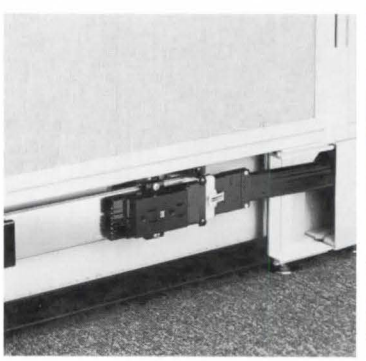
Monteverdi-Young
The walnut with burl doors of this bar cabinet conceal a refrigerator. The piece features a glass top with a chrome base and chrome hardware.
Circle 203 on reader service card

Mueller
Available in a high- or low-back version, the Essex executive swivel-seating series features a channel-stitched cushion upholstered in a selection of leather or leather-look materials.
Circle 204 on reader service card



Nienkämper
An all-wood collection of executive casegoods, Management Plus includes desks, credenzas, run-offs, overhead storage, bookcases, overhead cabinets, and lateral files. A new Granite finish may be selected in addition to a variety of stains.
Circle 205 on reader service card

The Pace Collection
Designed by architect Steven Holl, the Sidereal Table is blackened aluminum with a sandblasted glass lamp connected by vertical rods.
Circle 206 on reader service card



Panel Concepts
IMPAC-8 is a new four-circuit/eight-wire power distribution system designed to complement System 2Plus open office panels.
Circle 207 on reader service card

Reff
Offered in a range of fabric or leather upholstery, the 740 Series of executive seating is part of a seating line designed for task, general office, and lounge applications.
Circle 208 on reader service card

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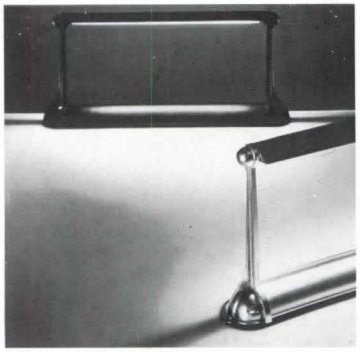
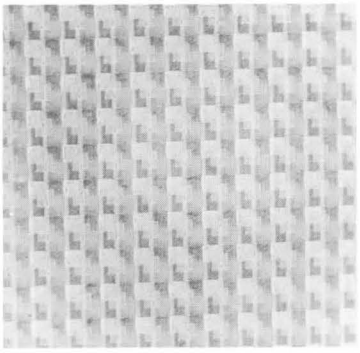
DUPONT

Circle No. 366

WESTWEEK



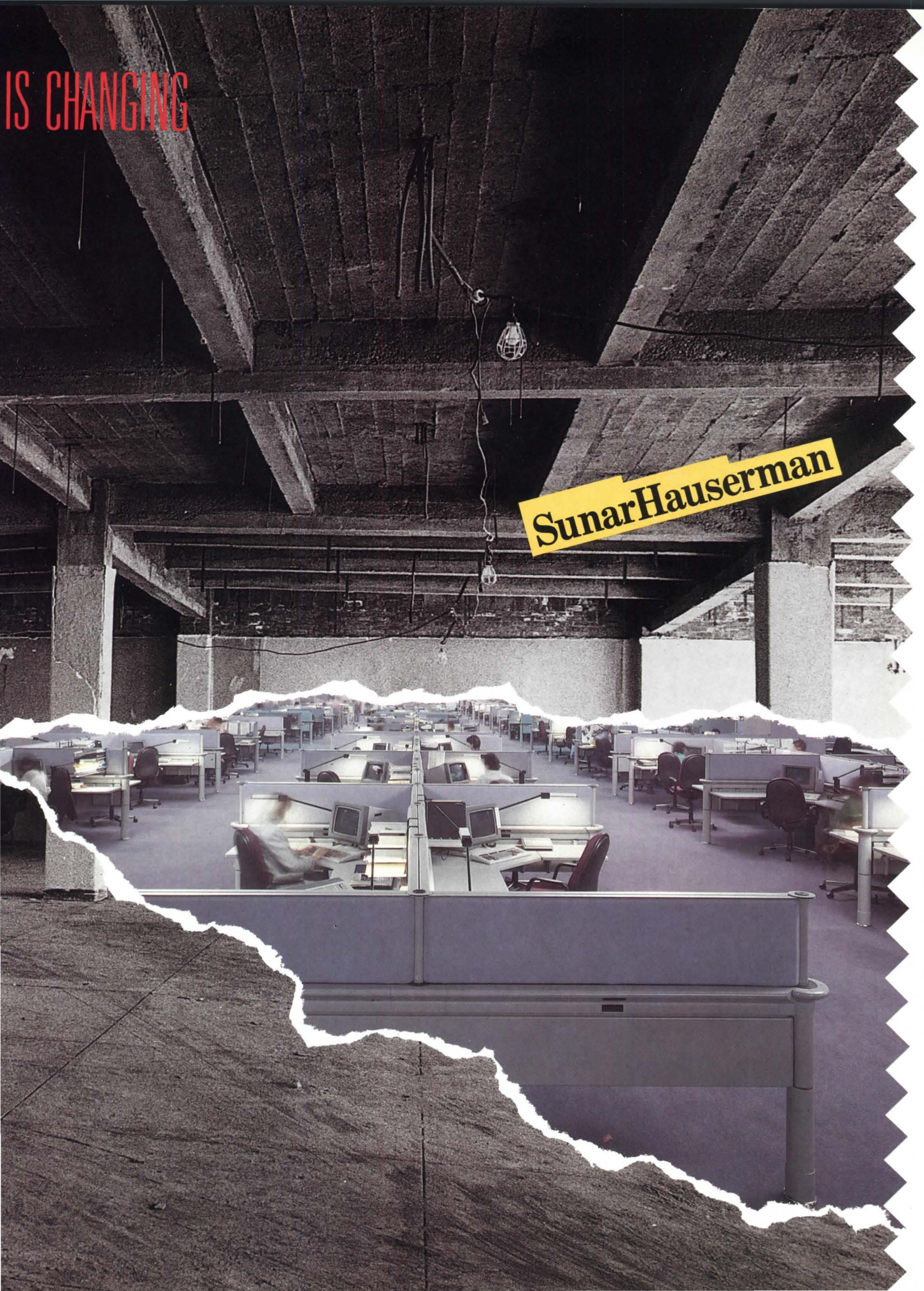
Ron Rezek
Offered in flat black or silver anodized aluminum, the Metropolis fluorescent desk lamp features an adjustable shade.
Circle 209 on reader service card



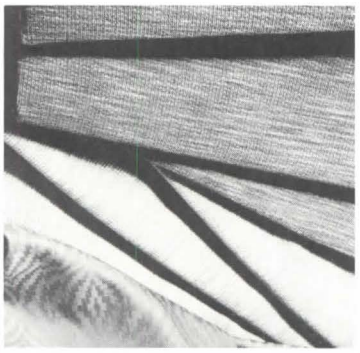
Ben Rose
Woven with cotton, wool, and nylon, the Autobahn damask upholstery fabric is 54 inches wide and is available in 12 colorways.
Circle 210 on reader service card

Saporiti Italia
The Park Desk, supported by leather upholstered legs and a curved lacquered wood base, features a complementary lacquered top and leather-finish work surfaces.
Circle 211 on reader service card

Scalamandré
Available in 10 colorways, Astor Cloth contract upholstery fabric is 100 percent wool.
Circle 212 on reader service card


IS CHANGING
SunarHauserman

WESTWEEK

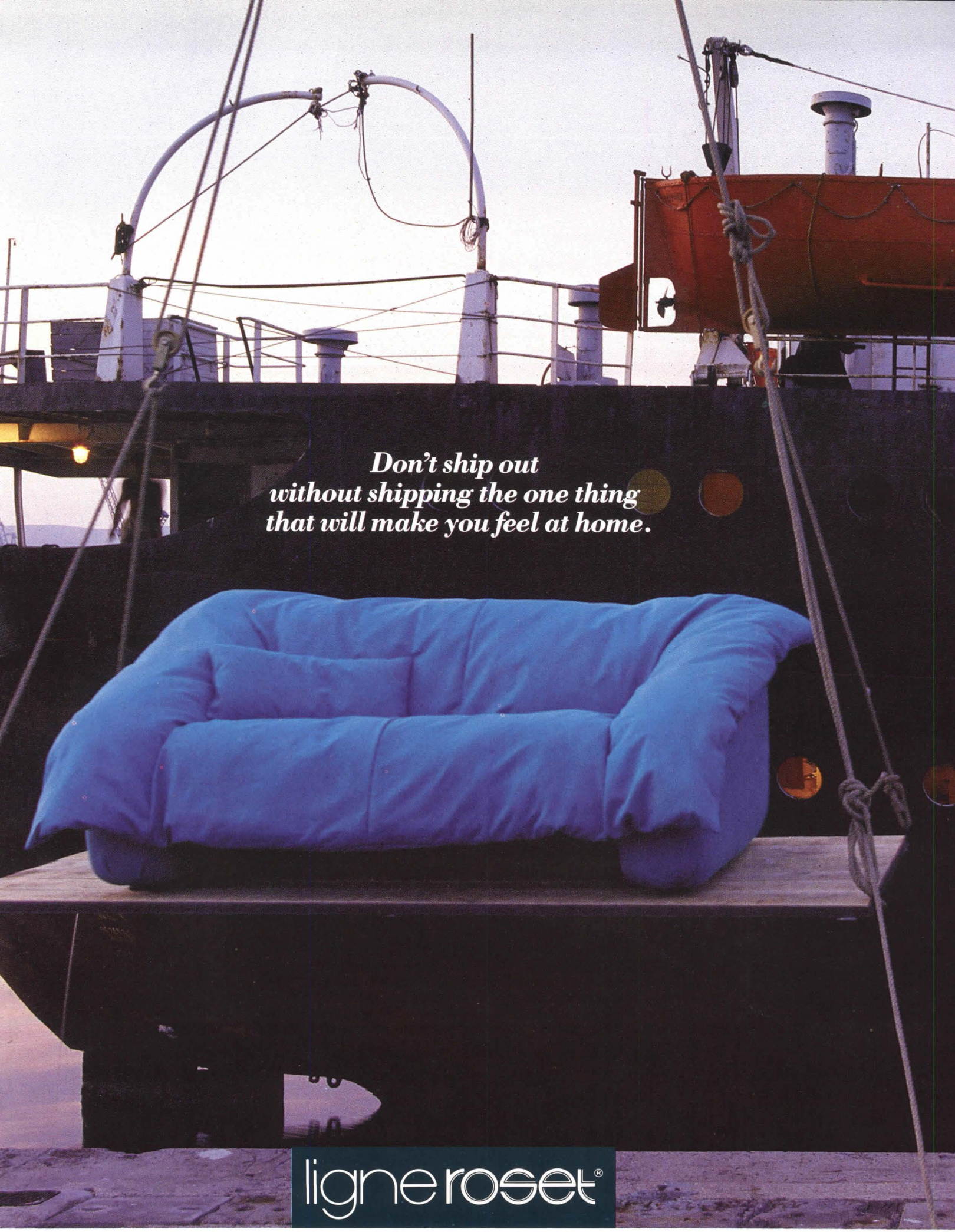


F. Schumacher & Co.
Part of the collection of contract fabrics, Tyler Chenille may be ordered in 10 colorways. This cotton wool blend is 55 inches wide.
Circle 213 on reader service card

Shaw/Walker
Woodwind wood furniture systems have been expanded to include four wood veneer finishes and freestanding and modular components. The system was designed to complement the Tempo 3 Radius system.
Circle 214 on reader service card

Shelby Williams
The Randolph Group, designed for hospitality applications, includes a loveseat, lounge chair, full sofa, and sleeper-sofas.
Circle 215 on reader service card

Steelcase
Sensor high performance ergonomic seating is offered in five new fabrics and more than 40 colors.
Circle 216 on reader service card



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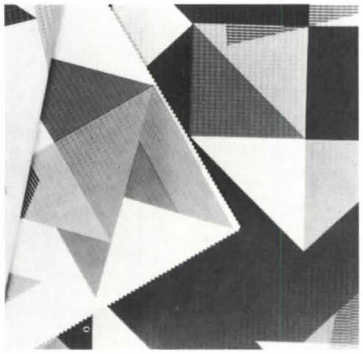
WESTWEEK

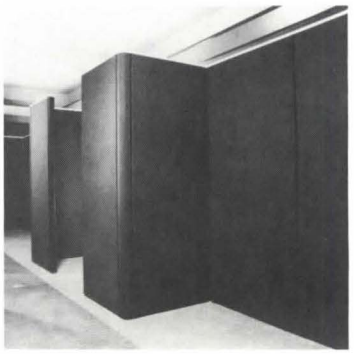
1 9 8 8

Stendig
Designed by Miquel Angel Ciganda for the new Spanish company Akaba, the Asun armchair can be used for formal dining or casual applications.
Circle 217 on reader service card

Stow & Davis
Additions to the Elective Elements furniture line include improvements in work surfaces, panels, and surface materials, and cable management options.
Circle 218 on reader service card

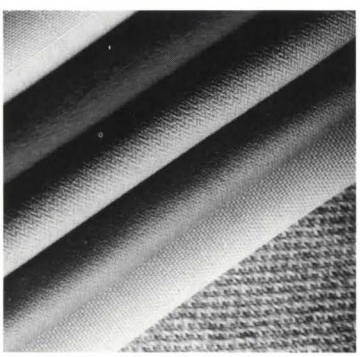


Stroheim & Romann
One of the fabrics from the Studio Print Collection IV by JAB, Evori woven print is offered in three colorways.
Circle 219 on reader service card

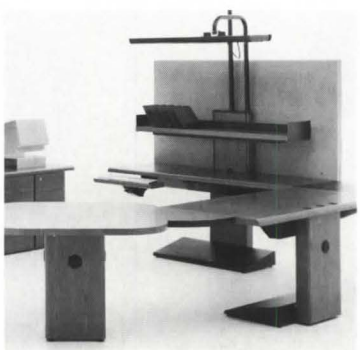


SunarHauserman
Design Option Wall is a flexible wall system designed to carry wiring from ceiling to base and to move easily. Several panel materials may be specified for a range of applications.
Circle 220 on reader service card

Unifor
Afra and Tobia Scarpa designed the Mats collection of desks and conference tables. The bases are cast aluminum, and tops are wood, slate, glass, or marble.
Circle 221 on reader service card



Westinghouse
Additions to the panel fabrics and upholstery collections include 20 new options for Soma, a new seating line, and six new colorways in each of the two original upholstery lines.
Circle 222 on reader service card



Xception
Wood credenzas and work tables make up the Axess line of modular computer support furniture designed by Michel Beaulieu for boardrooms and offices.
Circle 223 on reader service card

Zographos
The City Chair, a pull-up dining chair designed by Nicos Zographos, is constructed of a cherry wood rim and can be upholstered in leather or fabric.
Circle 224 on reader service card

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photo: Peter Paige

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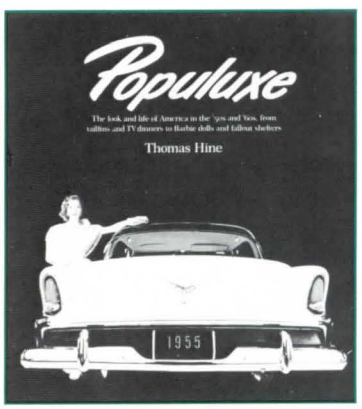
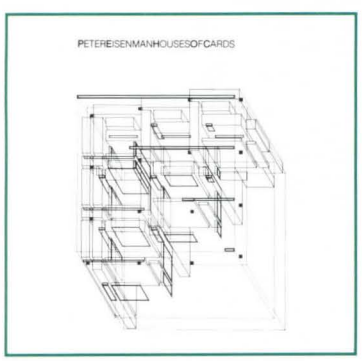
Books

Populuxe *by Thomas Hine. Alfred A. Knopf, New York, 1986. 184 pp., $29.95.*

House of Cards *by Peter Eisenman. New York, Oxford University Press, 1987, 224 pp., $60.00.*





Fifties Fantasy

Considering our relative infancy as a nation, Americans sure are nostalgic. No sooner do we excoriate an era, literally throwing out the junk of decades past, than those same hula hoops and boomerang settees reappear as antiques. Today, the fashion conscious are resuscitating the full-skirted shirtwaist, leopard-skin accessories, and the pill box hat, and designers unabashedly plagiarize the wardrobes of their youth. Why are we suddenly so gaga over the knickknacks of the Kennedy era? *Populuxe,* written by Thomas Hine, architecture and design critic for the *Philadelphia Inquirer,* doesn't address the wherefore of our present enthusiasm, but the appearance of his book confirms the fact that Moderne is back.

The book argues that the decade from the mid-1950s to the mid-1960s embraced America's glory days. We had flexed our muscle and won in World War II; our economy was booming and so too was the population. Well past the exigencies of survival, we wanted to play.

The author guides us through a yard sale of items demonstrating how mass consumerism dictated the quest for more and fancier goods. The goods were often mass-produced—thus popular, yet beyond utilitarian; that is, luxurious. Hence the term "populuxe"—a self-contradictory linguistic hybrid that smacks of Madison Avenue français. The infrastructure of the *Populuxe* era was put in place immediately following our Great War—babies boomed, Levittown grew out of the Long Island potato fields, and suburbanites bought cars to line up on the expressway. But it took another decade for Americans to really get comfortable with spending their new income, and marketing strategists were at hand to ensure that consumer dollars were recycled as vigorously as the rinse water in a 1956 Maytag washer. Just what did Americans find to spend so much money and attention on? Though we may prize an Eames chair or Noguchi lamp today, owning the museum-quality art object for time immemorial was not the point then. This was the age of the re-do. Nondescript living rooms could be transformed to "Colonial," "Contemporary," or "French Provincial" (they all look pretty much the same, depending on where you hang the dust ruffle); the family room, newly outfitted with folding tables, became the TV room; and simply utilitarian kitchens acquired indispensable appliances such as the electric frying pan, dishwasher, and deep freeze—all color coordinated and all guaranteed to break.

The point of constantly redoing your home or car or hairdo was not simply to keep up with the Joneses; it was to keep apace with the future. The great-

(continued on page 150)

Logical Houses

This book documents six houses that Peter Eisenman designed in the late 1960s and the 1970s. The book is organized according to presentation methods, with sketches, diagrams, models, design development drawings, and working drawings for all six houses occupying separate chapters. The best part of the book contains essays written by Rosalind Krauss, Manfredo Tafuri, and Eisenman himself. Krauss discusses the early shift in Eisenman's focus from architectural formalism to the parallels between architecture and linguistic ideas. Tafuri offers a closer reading of the individual houses, suggesting psychological as well as philosophical interpretations. And Eisenman puts the houses in the perspective of his current, deconstructivist work.

The book may contain more than most people want to know about these houses. And its author may sound, in places, as hermetic as his architecture. But House of Cards remains an important document of the possibilities—and limits—of architecture as a vehicle for philosophy. ***Thomas Fisher*** ■

American Houses *by Philip Langdon. Stewart, Tabori & Chang, 1987. 256 pp., illus., $29.95.*
Don't be fooled by this book's ambiguous title and glossy packaging; it is actually a wide-ranging discussion of current trends in single- and multi-family housing, in the manner of Langdon's writings on architecture for the *Atlantic.* It's a good book to brief clients and other nonprofessionals on options in houses and housing.

A History Of Architecture *by Sir Banister Fletcher, edited by John Musgrove. Butterworths, 1987. 1622 pp., illus., $50.00.*
The expanded 19th edition of this classic reference includes recent work and devotes more attention to non-Western architecture than past editions.

Housing the Aged *edited by Victor Regnier and Jon Pynoos. Elsevier Science Publishing, 1987. 500 pp., illus., $59.00.*
Subtitled "Design Directives and Policy Considerations," this reference manual explores the social, architectural, and psychological questions involved in housing elderly people.

Mario Botta: Architecture 1960–1985 *by Francesco Dal Co. Rizzoli, 1987. 288 pp., illus., $50.00 hardcover, $35.00 paperback.*
Now available in English, this engaging study of Botta's work (beginning with his first built work at age 17) contains critical essays, a catalog of projects and built work, and over 500 photos.

Native Trees, Shrubs, and Vines for Urban and Rural America *by Gary L. Hightshoe. Van Nostrand Reinhold, 1987. 819 pp., illus., $79.95.*
This encyclopedic volume catalogs native plantings and discusses issues related to their use in landscape design.

Books *(continued from page 149)*

est invention of the "jet age" was the push button. Everyone had one—NASA, the President (remember, this is the fifties), and homeowners. Buttons promised speed, efficiency, and labor saved. The problem with pushbuttons and similar labor-saving devices, as Hine with the help of Betty Friedan points out, is that it left less and less for the housewife to do; modern super-cleaners had scrubbed away her identity. Men, too, were often defeated by buttons. Daintily pressing into second gear is no substitute for the feeling of power and virility offered by a stick shift. The shape of the future attacked other parts of the automobile anatomy as well. The design of the tailfin was lifted directly from the Lockheed P-38 Lightning, and Oldsmobile adopted a rocket for its hood ornament. Hine interprets: ". . . there was a sense that just as airplanes had broken through a (sound) barrier some had thought unbreakable, and were evaluated in terms that only shortly before had been unimaginable, modern life had broken through a barrier of its own and change and progress could be expected at a far more rapid rate than before."

As the 1950s progressed, outer-space imagery outstripped that of the airplane. Streamlined silhouettes took on more acute, zippier angles. The parabola was used on tables, amusement park rides, and the "butterfly chair" and was inscribed on everything from juice pitchers to juke boxes. The futuristic atom motif (either the molecular model of rods and spheres or the graphic spheres in orbit) informed wall clocks, lamp bases, and fabric patterns. And vacuum cleaners came to look like satellites. When you were done outfitting your home, car, and wardrobe, you could begin on your fallout shelter.

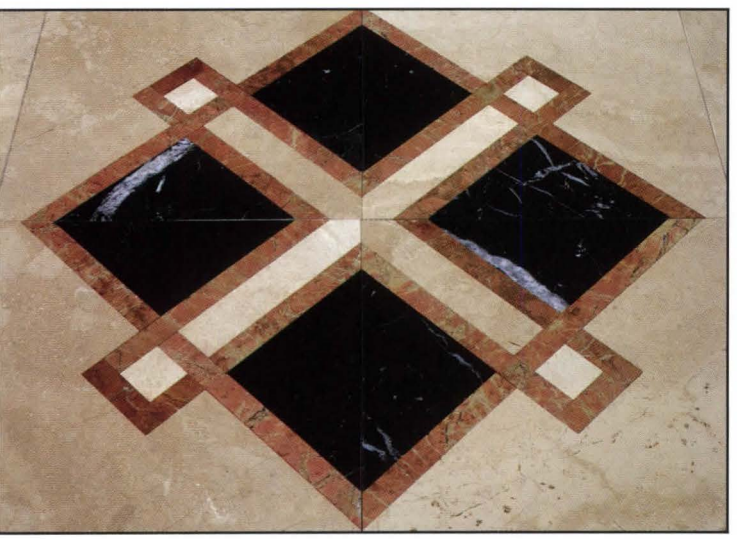
Despite the proliferation of consumer goodies, all was not equal. Then, as now, high design trickled down to the masses. The Cadillac was the first to sprout rudimentary tailfins in 1948; they suggested decreased wind resistance and gave the elite consumer a little more for his money. By 1958, Buicks and Chevys looked like Siamese surfboards on wheels. Noguchi was responsible for the boomerang table, Knoll introduced the butterfly chair (and soon lost the copyright, opening the door for millions of knockoffs) and, lacking the audience for handcrafted originals, modern designers such as the Eameses, Bertoia, and George Nelson skipped the middleman and designed "classics" for mass production. In architecture, developers borrowed motifs from high-style designers without asking the consumer to swallow the whole pill (and bill). Thus the birth of the "California overhang" (traceable to Neutra), the glass box office building without God in the details (Mies), and the indoor-outdoor horizontal house (Wright). Some of the "shapes of the future," though drawn from technology and science, were also advertised by architects and popularized on the "strip." Le Corbusier's upward sweeping "butterfly roof" protects many a motel porte cochère and drive-in restaurant, Frank Lloyd Wright's cantilevers project across gas stations, and where did McDonald's get those arches anyway?

The beauty of this book is that Thomas Hine has managed to treat kitsch seriously. Whether you still turn up your nose at the 1950s or have finally come around to liking Morris Lapidus (admit it), the book is instructive and immensely entertaining. The illustrations and captions pretend to be strictly documentary, but are, by nature, hilarious (see the General Electric ad of a woman cooking Atomburgers in front of America's first nuclear power plant). But don't stop there. The very readable text is loaded with relevant historical and demographic data and commentary which describes the consciousness of America in the mid-1950s and allows us to measure how much more sophisticated we are today. Because we still live with so many daily reminders of the *Populuxe* era—from jukeboxes to subdivision-raped landscapes to the choking dependence on the automobile—we can look nostalgically on yesterday and at the same time curse its naïveté and poor planning. Through the chuckles, this book invites us to consider seriously the consequences of our decisions on the next generation.

Rosanna G. Liebman ■

The author is an architectural historian and photographer living in New York.

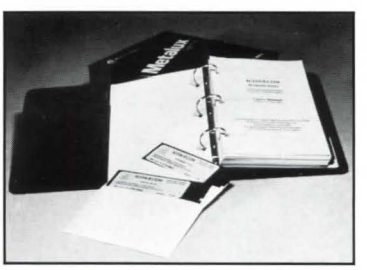
New Products and Literature



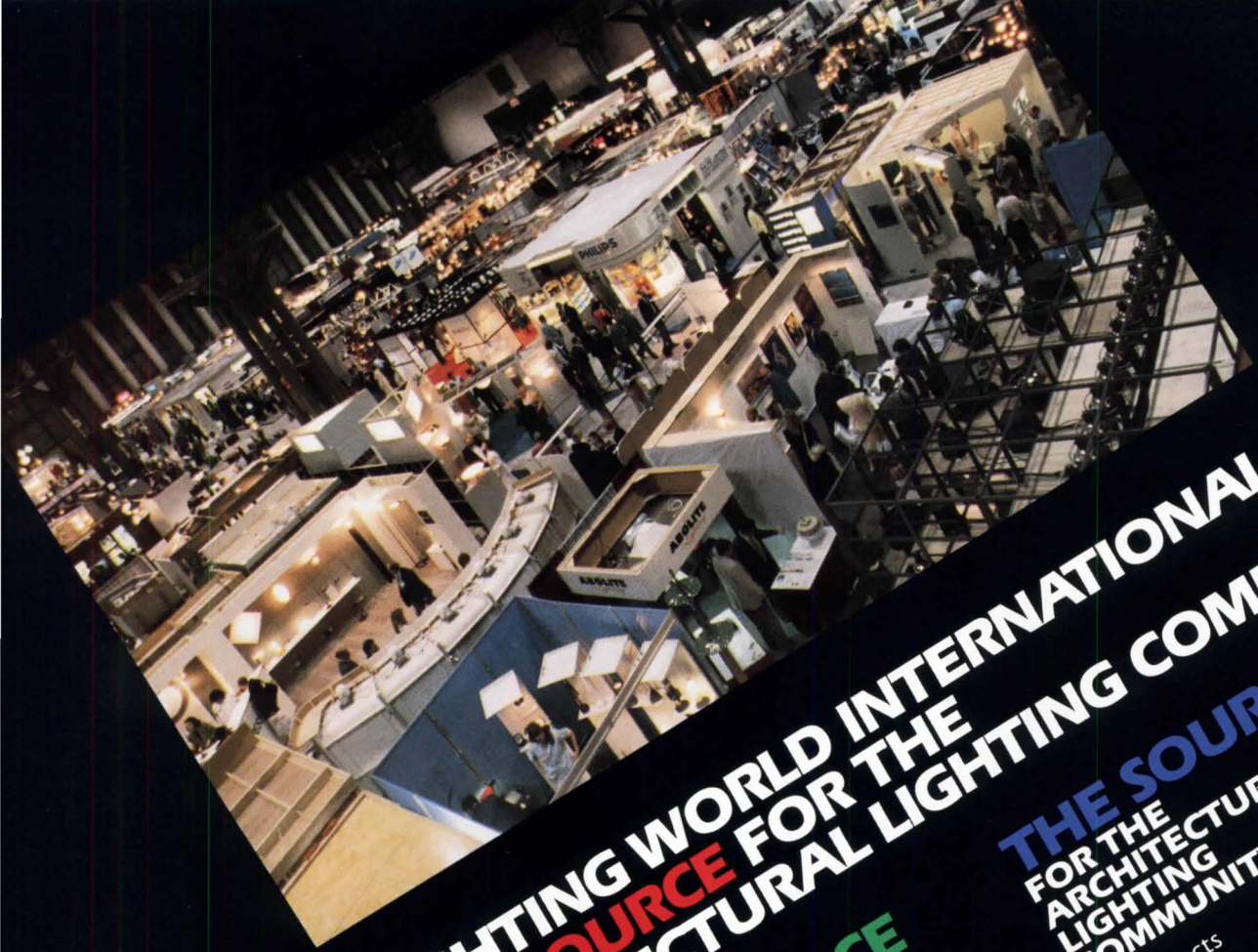
Hand-crafted marble tile, Collezione Bi Marmi, is available in both 12″ x 12″ and 18″ x 18″ sizes and more than 90 different designs that can be mixed or matched to form overall patterns, borders, and central motifs. The ⅜-inch tiles are bonded through a patented process, without backing or resin joints. Trans Ceramica, Ltd.
Circle 235 on reader service card

Conservatories for both residential and commercial applications are described and illustrated in a color brochure. The panels have aluminum framing, with a choice of three types of glass glazing for the walls and polycarbonate glazing for the roof. Fans provide ventilation in addition to that of the ridge vents. The conservatory shown is a pool house. The company offers three brochures: Two are technical and one shows in color several completed installations. For the three catalogs, send $10 to Machin Designs, 557 Danbury Rd., Wilton, Conn. 06897.

Pella solid wood doors are constructed with integral aluminum vapor barriers, based upon new laminating technology, that greatly reduce the problems of warping, cracking, and peeling that can occur in solid-core doors. The oak-faced doors come prehung and prefinished, with weatherstripping, insulated glazing, and adjustable thresholds. The seven door styles accommodate up to 30 configurations of doors, transoms, and sidelights. Rolscreen Company.
Circle 236 on reader service card



A lighting computer program, Icon/Econ, analyzes all aspects of luminaire performance and provides precise graphic lighting layouts. Each program is personalized for the firm to whom it is licensed. Compatible with IBM PC and most printers used with personal computers, the program provides architects, lighting engineers, consultants, and interior designers with in-house capability. Icon compares up to five alternative lighting solutions, providing information on 41 essential elements. Econ provides a full description of costs. Metalux Lighting.
Circle 237 on reader service card



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Circle No. 335

The Magia Series of faucets and fittings, designed by Barbieri & Marianelli, offers a variety of ring details and knob/body finishes. Marble and quartz rings are available, as well as standard chrome and gold finishes. Knob and body colors are black, white, red, gold, and chrome. Watercolors.
Circle 238 on reader service card

The MAX Wood Panel System has precisely computer-machined softwoods and hardwoods in standard or customized dimensions for walls, doors, ceilings, and cabinetry. Geometric patterns can be used over large areas, from classic to contemporary. Wood choices are oak, mahogany, white fir, redwood, and paint-grade wood in a variety of standard finishes. Forms + Surfaces.
Circle 239 on reader service card

Pipe picket railings Series 550 of nonwelded aluminum are strong, durable, and require no paint maintenance. Fittings are aluminum extrusions and castings. Railings are made to customer specifications in lengths up to 24 feet and heights of 30, 36, 42, and 48 inches. Finishes are white, bronze, dark bronze, brown, and black baked-on enamel or satin and Duranodic anodized. Superior Aluminum Products.
Circle 240 on reader service card

Lo-Pro studded rubber tiles and stair treads are available in ten marbleized colors and seven solid colors. Featuring slightly raised rubber discs, the tiles are suitable for areas where there is light wheel traffic. A 12-page catalog provides suggested specifications, maintenance procedures, and test data on a complete line of resilient rubber flooring products. The R.C.A. Rubber Co.
Circle 241 on reader service card

The Wall-Hung System offers cabinets of varying heights, widths, and depths. Its flexibility makes it adaptable to any room. The system is shown in ivory washed oak, with pull-out television swivel shelf, and halogen wall-wash lights. Planum, Inc.
Circle 242 on reader service card

Hickory Manor cabinets for kitchen and bath feature hickory doors, drawer fronts, and face frames. An arch accents the raised-panel cabinet doors. A reverse bevel makes the addition of hardware optional. Aristokraft.
Circle 243 on reader service card

Legacy Fabric, designed by Sina Pearson, has a large-scale geometric pattern. It is a two-tone satin weave in 14 color combinations. It is woven of a tightly twisted worsted wool; an extra finishing process adds to its luxurious hand. Unika Vaev·USA.
Circle 244 on reader service card

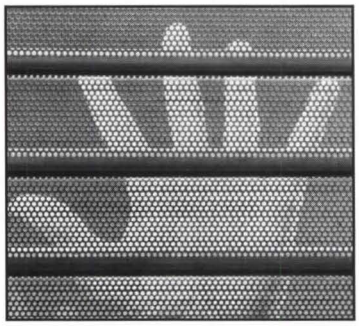
General lighting products catalog describes a wide range of lamps for industrial, commercial, and residential lighting. Featured in the 18-page catalog are tungsten halogen, incandescent, fluorescent, metal halide, and high intensity discharge lamps. Osram Corporation.
Circle 245 on reader service card
(continued on page 154)

(continued from page 153)

A ceramic floor tile, Prominence™, contains optical quality glass to eliminate or reduce many of the inconsistencies associated with ordinary ceramic tiles. Color and size consistency can be more accurately maintained from one production run to another. It is suited for high traffic areas such as retail malls, lobbies, and hallways. The tile is available in 29 colors, including both monochromes and polychromes, and six modular sizes. GTE Electrical Products.
Circle 246 on reader service card

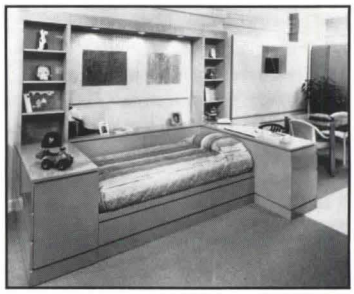
Revolving restaurant turntables are described in a brochure that explains the turntables' construction and the company's capabilities. The Macton Corporation.
Circle 247 on reader service card

Controlling Noise in Correctional Facilities is intended to help correctional facilities architects and engineers achieve an improved interior environment by neutralizing high noise levels. The review discusses the nature of stress-inducing noise, how prison construction contributes to excess noise levels, and the adverse effects of noise on jail discipline, communications, and inmate behavior. Industrial Acoustics Company, Inc.
Circle 248 on reader service card

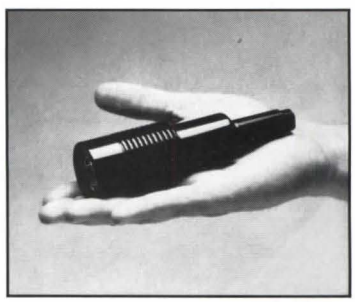


A rolling door of perforated flat slat steel provides optimum ventilation as well as maximum security. Made of 22-gauge galvanized steel, the door supplies nearly 50 percent screened ventilation. It is available in sizes up to 16 feet wide by 16 feet high. Optional curtain materials include electrostatically painted galvanized steel, roll-formed aluminum, and 22-gauge stainless steel. Kinnear Div.
Circle 249 on reader service card

IAC, INCEPA, and OSTARA ceramic tiles, ranging in size from four-inch to twelve-inch squares, come in over 200 colors and textures. They can be used for residential and commercial applications. Prices are comparable to higher grades of vinyl, carpet, and wood. International American Ceramics.
Circle 250 on reader service card



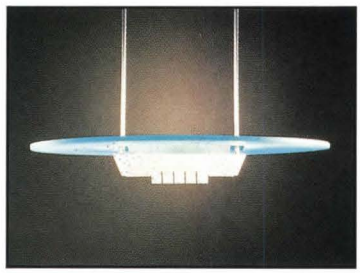
Brooke Series children's furniture has a single bed with storage underneath and at the foot. An attached desk is at the head. Shelves, table, and chair are options. There is a choice of woods, lacquers, and laminates. Woodex.
Circle 251 on reader service card



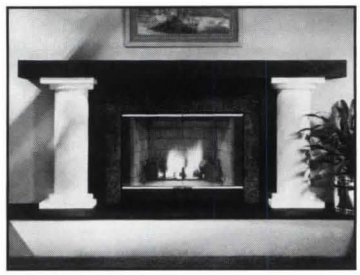
A series of low-voltage halogen fixtures called Miniatura® offers small dimensions in the entire line, from ceiling fixtures and broad spots to framing and iris projectors. The Miniatura line is designed around the miniature MR-11 quartz-halogen lamp with dichroic reflector. The line is available in black, white, or brass finish or painted in custom colors. CSL Lighting.
Circle 252 on reader service card

Stone World Buyers Guide is a complete reference source for stone users and producers. It lists suppliers of stone materials, stone installation products, stone

care and maintenance supplies, and stone fabricating equipment. Companies are cross-referenced according to the materials and products they offer. The directory is available for $25 from Stone World, Tradelink Publishing Co., Inc., 485 Kinderkamack Rd., Oradell, N.J. 07649-1502.



Nova ceiling fixture, designed by V. Missanelli, has a support of die-cast aluminum painted with epoxy powder enamel. It has a curved, etched, tempered glass shade. Stem and base are painted metal with telescopic connection. Lightscape Inc.
Circle 253 on reader service card



A traditional masonry fireplace with a 45-inch screen opening can circulate up to 10,000 Btu of additional heat with its fan operating. This model warms an average size room from the bottom up. An unobtrusive vent on the bottom of the unit offers the maximum amount of fan output from the minimum amount of space. Bi-fold solid polished brass-trimmed All-Glass™ doors with clear or tinted glass are optional. Superior Fireplace.
Circle 254 on reader service card

Impervious granite pavers from China are suitable for both interior and exterior use. They come in nine standard colors, with over a hundred decorator colors available. China International Trade Associates, Ltd.
Circle 255 on reader service card

Component rail systems brochure shows picket, glass, flush and slip-fit, offset, and wall-mounted railings. There are photos, detail drawings, a list of features and options for each. Architectural Art Mfg., Inc.
Circle 256 on reader service card

(continued on page 156)

(continued from page 155)

Safari Series ceramic tiles are designed for use in residential kitchens and baths for countertops and backsplashes and for commercial or residential walls. Tiles have a soft, matte finish in neutral colors. They are available in four-inch and six-inch squares, as well as trim. Monarch Tile Manufacturing.
Circle 257 on reader service card

Classical columns are true to specifications of the Italian architect Giacomo Barozzi da Vignola. They can be used inside or out, as structural members or decorative elements. Columns are constructed from Ponderosa pine and clear heart redwood, with other wood available by special request. Chadsworth, Inc.
Circle 258 on reader service card

A modular fabric structure features a tensioning system that makes installation and adding on modules easy. The system can be enlarged or split into parts to make smaller structures. Wall systems are flat fabric panels suspended between columns and are easily removed for vehicle access. Warner Shelter Corp.
Circle 259 on reader service card

Building Materials

Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.

Portland Center for the Performing Arts, Portland, Oreg. (p. 57). *Architects: BOOR/A, Portland, Oreg.; ELS Design Group, Berkeley, Calif.; Barton Myers Associates, Toronto and Los Angeles.* Portland cement: Willamette. Concrete roof structure: W.R. Grace. Brick: Interpace Brick. Special coating: Dryvit. Steel: Tom Benson Industries, J.O. Olsen Mfg. Exterior paint: Degraco, div. of Valspar. Custom windows: LOF. Skylights: McFarland. Blinds: Bali. Doors: Stiles Hollow Metal, Overhead Door. Hardware: Lawrence (hinges); Schlage (locksets); LCN (door closers); Von Duprin (panic exit). Built-up roof: Snyder. Waterproofing, insulation: Owens-Corning. Carpet: Harbinger. Terrazzo: Queen City. Ceiling: Cascade Acoustical. Metal stud partitions: Cascade Acoustical. Interior paint: Rodda, Pratt & Lambert. Furniture: Houseman, Sunar. Kitchen units: Acme. Upholstery: Design-Tex, Unika Vaev. Public seating: Irwin. Fire equipment: Simplex. Custom signage: Mayer/Reed. Stage equipment: Stagecraft. Elevators: Otis. Handrails: TSCO. Custom lighting: Keller. Marquee: Ramsay Sign.

Ley Student Center, Houston, Texas (p. 72). *Architects: Cesar Pelli & Associates, New Haven, Conn.* Brick: St. Joe; glazed brick: Elgin Butler Brick; limestone: Indiana Limestone; tile: Florida Tile. Aluminum windows and doors: Thermo-set System, U.S. Aluminum Corp. with Duranar coating by PPG. Hollow metal and custom wood doors: Wood-Arts. Quarry tile: American Olean. Ceiling surfacing: Conwed. Roofing of clay roof tiles and copper standing seams: Seline Sheet Metal. Waterproofing: Tremco. Wallpaper: Bradbury & Bradbury. Wood trim: Wood-Arts. GFRC column covers: GRG Southwest. Ceramic tile (bathrooms): American Olean. Paint and stain: Tnemec. Hardware: Stanley (hinges); Best Lock Corp. (locksets); Dorma Door Controls (door closers); Von Duprin (panic exit). Elevators: Montgomery. Fabricated metal stairs with concrete treads: Gerber Iron Works. Rubber flooring: Lexco. Custom print lounge carpets: J & J. Venetian blinds: Bali.

Toscana Ristorante, New York (p. 76). *Interior architects: Piero Sartogo Associates Architects, Rome and New York.* Encausto a cera wall treatment: Fratelli Botti. Pearwood walls: Sommetville. Ceiling tiles: Armstrong. Carrara marble flooring: Bufalini. Glass ceramic tile: Ital Mosaic. Ceiling fixtures and wall sconces: Foscarini-Murano. Bar stools and tables: Tagliabue- Mariano Comense. Sofas and chairs: Saporiti. Pearwood and Tirreno marble bars, door handles: Irfa. Tablecloths: Frette. Artwork: Roberto Gnozzi; Giuliano Fiorenzoli.

Clos Pegase Winery, Calistoga, Calif. (p. 82). *Architect: Michael Graves, Architect, Princeton, N.J.* Ceramic and glass roof tiles: Roumazieres-Loubert. Stucco: Flintkote; Gemstar. Rolling doors: Pacific Rolling Door. Paint: Benjamin Moore; Pratt & Lambert. Hardware: Hager Hinge; Sargent; Bommer; Russwin; Ives; Glynn-Johnson. Security system: Allied Alarms. Lighting: Johns-Manville. Plumbing fixtures: Elkay; American Standard; Chicago Faucets. Bathroom partitions: Knickerbocker Partition. Bathroom accessories: R.A. Gershenson. Water fountains: Haws Drinking Faucet. Drain system channels, catch basins, caps: Aco Polymer Products.

P/A in March

Stan Ries

Rector Place, Battery Park City, New York.

The New Urban Design

The winner of a P/A Urban Design and Planning Citation, Battery Park City in New York will be the centerpiece of an article on the new urban design to emerge from the failings of the Modern city.

Also in March

Two features will cover new interiors in newly rehabilitated structures: the Herman Miller showroom in New York's International Design Center by Gwathmey/Siegel & Associates, and the interior of Le Corbusier's Villa Schwob in Chaux-de-Fonds, Switzerland, by Andrée Putman. A P/A Inquiry article will examine problems encountered in the planning and design of back offices, and P/A Technics will profile an innovator in the use of glass, James Carpenter.

Future Issues

April will be devoted to the subject of preservation. There also will be a P/A Technics article on computers and a special section on building security.

P/A Job Mart

Situations Open

University of Southwestern Louisiana, Department of Architecture invites applications for faculty positions to begin in the Fall Semester 1988. The department offers the first professional degree with a 5-year NAAB Accredition.

I. One tenure-track appointment. Successful candidate must be qualified to teach architectural design at foundation or advanced level and to participate in research and development of the Department's computer resources; experience in theoretical or applied computer methods required. II: Two visiting appointments. Successful applicants will teach foundation level or advanced design and theory, and should have an interest in teaching or undertaking research in another discipline of the curriculum. A Master's Degree in appropriate field is required for tenure-track positions. Selection criteria for all positions will focus on demonstrated excellence in teaching, or undertaking research in another discipline of the curriculum. A Master's Degree in appropriate field is required for tenure-track positions. Selection criteria for all positions will focus on demonstrated excellence in teaching, professional experience or scholarly achievement, and significant ability in a particular area of architectural education. Appointments have a ten-month annual obligation; rank and salary negotiable.

For initial consideration respond by March 1, 1988 with curriculum vitae, statement of philosophy of architectural education, and names, addresses and telephone numbers of three references to Chairperson, Architecture Faculty Search Committee, USL Box 43850 Lafayette, LA 70504. Applications will be accepted until the positions are filled. The University of Southwestern Louisiana is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority candidates are particularly welcome.

The University of Texas at Austin offers an opportunity for a qualified professional to serve as Dean of the School of Architecture.
The School of Architecture offers the accredited B. Arch., M. Arch., MSCRP degrees, and BSAS and MSAS degrees to an enrollment of 450 undergraduate and 200 graduate students with a faculty of 37 full-time and 9 part-time. Desired qualifications of the Dean:

- Advanced professional degree and professorial credentials.
- Evidence of distinguished scholarly and professional accomplishments.
- Significant administrative experience.
- Capability to bring the School greater national recognition.
- Experience in fund-raising for research and education.

The position becomes available September 1, 1988. Applications will be accepted until March 15; the Committee may then request nominations from responsible sources. Nominations and letters of application, accompanied by a curriculum vitae, references, and other supporting materials, should be mailed to:

Dr. Anthony Alofsin, Chairman
Dean Selection Consultative
Committee School of Architecture
The University of Texas at Austin
Austin, TX 78712-1160

The University of Texas at Austin is an affirmative action, equal opportunity employer. Women and minorities are encouraged to apply.

Design Associate

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FACULTY POSITION

The University of Tennessee School of Architecture is searching for an Assistant/Associate Professor for a tenure track position to begin August 1, 1988. Persons who have engaged in substantial scholarly or professional activities supporting design work are needed to teach design courses in the five year Bachelor of Architecture program. There is a particular need for faculty to teach in first, second, and third year design courses, and elementary computer applications. Candidates are required to hold the Master's of Architecture degree and licensed to practice or PhD. Send resume, names and addresses of three references and evidence of work to: Roy F. Knight, Dean, 217 Art/Architecture Building, 1715 Volunteer Blvd., University of Tennessee, Knoxville, Tennessee 37996-2400. Applications will begin to be reviewed March 1, 1988.

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Princeton University School of Architecture is seeking candidates for the position of Professor of Architecture, full-time and with tenure.
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The position is open from September 1988 and will be filled between that date and the end of the year. School of Architecture, Princeton University, Princeton, NJ 08544, Attn: Dorothy Rothbard. Princeton University is an Affirmative Action, Equal Opportunity employer.

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Arch. firm seeks designer/planner to perform project design and planning, bldg. design, & working drawings. Master's degree in arch. with strong backgound in urban design/planning req'd, master's degree in urban planning/design preferred; excellent graphic ability; exp'd in CAD/word processing. Minimum 3 years exp. Mandarin speaking desired. $21,000/yr. 8a.m.-5p.m., 40 hrs/wk. Send resume to: Sam Chang Architect & Assoc., Inc., 838 S. Beretania St., Ste. 300, Honolulu, HI 96813. Before 2/21/88.

FACULTY POSITIONS

The Department of Architecture at Iowa State University seeks *two* full-time, tenure track faculty to teach and conduct research in Computer Studies in Architecture, and Environmental Forces and Energy in Architecture. Qualifications include appropriate academic or professional degrees, experience in teaching or practice, and demonstrated ability to pursue research. Send letter of interest, resume, and three references to Search Committee, Department of Architecture, College of Design, **Iowa State University,** Ames, Iowa 50011.

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Professor Marleen Davis,
Chairman
Faculty Search Committee
School of Architecture
103 Slocum Hall
Syracuse University
Syracuse, NY 13244-1250

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The Department of Architecture at Cornell University is seeking a Chairperson for a five year appointment at the rank of professor with tenure beginning 1 July 1988. The department requires a person who is a distinguished architect and experienced teacher with strong leadership and administrative skills to head an internationally known five year undergraduate architectural program and 2 year graduate programs in urban design, architectural design, architectural history, and architectural science. Interested persons should send a curriculum vitae to:
John Miller
Chairman of the Search Committee
Department of Architecture
143 East Sibley Hall
Cornell University
Ithaca, NY 14853
Applications should be received no later than 1 April 1988. Cornell is an equal opportunity/affirmative action employer.

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CLEMSON UNIVERSITY. The College of Architecture is seeking candidates for a tenure track assistant professorship with teaching responsibilities in architectural design and theory. Academic and practical experience is required while post professional study is desirable. Applicants should submit a vitae and names of references by March 15 to Peter Lee, Chairman, Search Committee, College of Architecture, **Clemson University,** Clemson, SC 29634. Clemson University is an equal opportunity employer.

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(continued on page 162)

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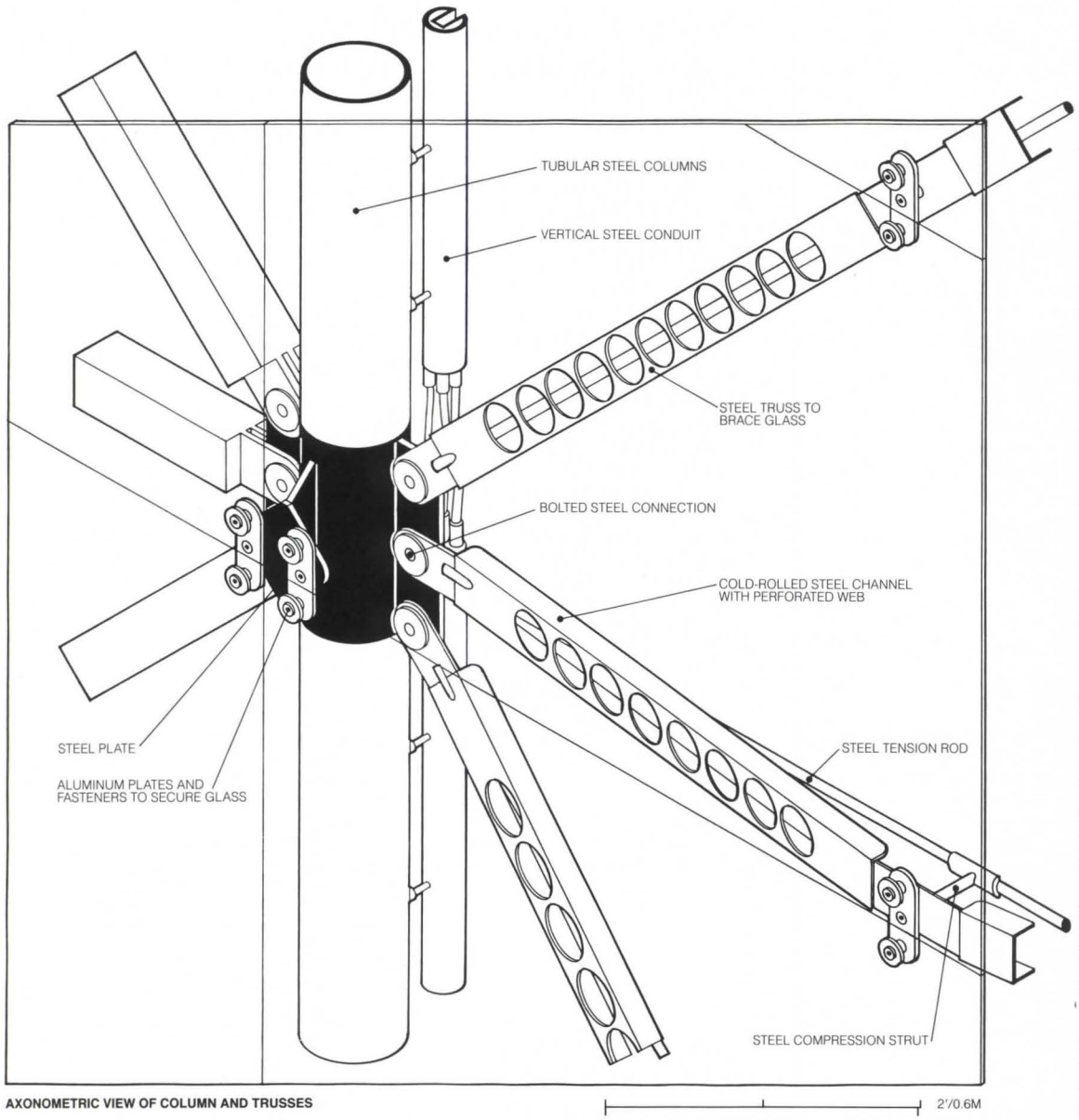
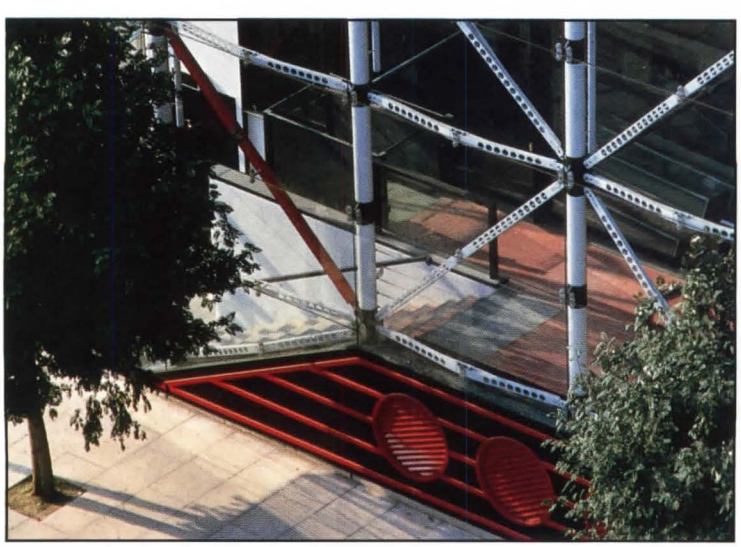


AXONOMETRIC VIEW OF COLUMN AND TRUSSES

Glazed Wall
The Museum of the Moving Image
London, England

Located under the approach ramp to the Waterloo Bridge in London's South Bank, the new Museum of the Moving Image by Avery Associates Architects offers an elegant solution to the problem of supporting large areas of glass. The building has glass-enclosed galleries along the northeast side of the structure, which function as corridors and exhibit space. To minimize visual obstructions and support the large glass sheets, the architects have designed a frame of round columns and horizontal and diagonal trusses. The columns, 200 mm (7.8 inches) in diameter, are made of steel and are set 3 m (9.8 feet) on center. The trusses, which brace the 4.5-square-meter (48-square-foot) sheets of glass against wind loads and suction, are made of cold-rolled-steel channels with perforated webs and steel tension rods connected to compression struts at the midspans. Aluminum plates and patches tie the glass to the steel frame, while black-painted-steel struts tie that frame back to the building itself.

Major Materials: *Glazing system: Pilkington. Aluminum plates: Solaglas Coventry Limited. Structural steel: Tubeworks Limited.*



View of glazed wall's exterior.

Detail of interior framing.

Photos: Martin Charles

P/A Advertisers' Index

(continued from page 159)

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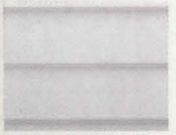

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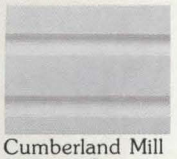

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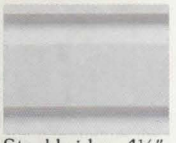

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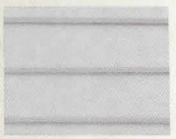

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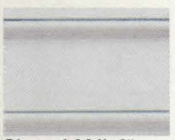

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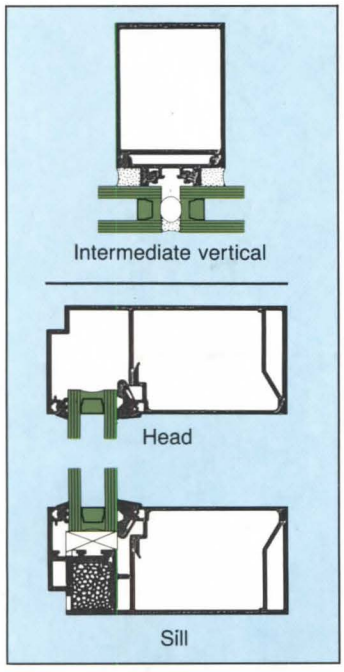

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