Progressive Architecture

December 1981







The Armstrong Commercial Corlon Flooring System. A new concept that's been proved in use for over 20 years.



Today, all across the nation, many millions of square yards of Armstrong Vinyl Corlon are performing beautifully. And many of these installations have been in place for over 20 years. That's just one reason Armstrong .090" gauge sheet Vinyl Corlon is one of the most widely



specified commercial floors. Another is the system that makes it work.

It looks monolithic.

Corlon comes in 6'-wide rolls up to 90' long.

You get a monolithic look because there are few seams. For example, you'll have about 93% fewer seams with Vinyl Corlon than with the same area of 12"x 12" tile.

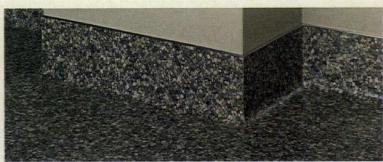


Epoxy-bonded seams.

An exclusive Armstrong epoxy adhesive chemically bonds the seams without heat or special tools. They won't come apart. And they won't trap dirt and moisture.

Wide range of colors and designs.

Armstrong Vinyl Corlon comes in five distinctive chip patterns and 32 colors ranging from bright and modern to neutral and natural.



Coving where dirt can't hide.

Flash-coving makes it simple to create a gentle radius where floor meets wall, eliminating the sharp corner where dirt can hide.

The pattern lasts and lasts.

Armstrong Vinyl Corlons are inlaid materials. Because the pattern and color go all the way through to the backing, they won't wear off like printed products. And

because the inlaid construction is smooth and

dense, spills wipe right up. Simple regular maintenance keeps the floor looking like new. These resilient floors meet the flame-spread



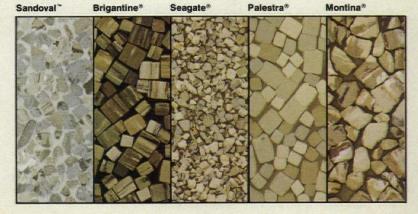
and smoke-developed requirements of the most widely recognized building codes and regulations.

Vinyl Corlon floors can be installed with a perimeter bonding system developed by Armstrong. In most cases, you can install them right over an old floor and eliminate a lot of work and expense.

The Armstrong Vinyl Corlon Commercial Flooring System. Specify it, and you'll get one beautiful long-lasting floor. For more information,

write Dept. 1CFPA, Lancaster, PA 17604.





Progressive Architecture

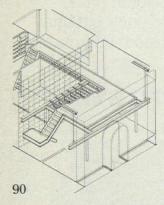




68







Cover: A house by Krueck & Olsen on Chicago's north side. Photo by Bill Hedrich, Hedrich-Blessing.

Editorial: A decade in summary

Architectural design

53 Stirling in another context

Remodeling and extension of the Rice University School of Architecture by James Stirling-Michael Wilford & Associates, with Ambrose & McEnany, fits into the plan and eclectic style of the campus. Peter Papademetriou; Critique by David Gebhard.

62 Mies in Wonderland

An elegant house by Krueck & Olsen reinterprets Mies van der Rohe in his own adopted city, Chicago.

68 Fit for a king

Stables in Lexington, Ky, for thoroughbred stallions were designed by Theodore Ceraldi for both safety and aesthetics.

Precursors: Le Corbusier's sketchbooks

Le Corbusier identified 73 sketchbooks for publication; 13 are reproduced in the first of what will be four volumes.

Forms of recreation

Two recreational facilities by Broome, Oringdulph, O'Toole, Rudolf & Associates, in northwestern Oregon on very different sites, make use of bold forms and bright accent colors.

89 Energy analysis

The Aquatic Center at Corvallis, Or, is analyzed for energy use by Vladimir Bazjanac.

90 Civic Center

A Washington, DC, government relations office for the American Honda Motor Co., Inc., by Spiker/Taylor.

92 Precursors: Lutyens in India

As the big Lutyens show opens in England, P/A presents a little exhibit of its own, the palace at New Delhi.

Technics

105 Specifications clinic: Seven sins of specifying-Part II

Departments

12 Views

News report

Report from Dallas

Calendar 46

106 Books

121 P/A in January

112 Products and literature

122 **Building materials**

128 Annual index

134 Job mart

136 Directory of advertisers

137 Reader service card

Loose subscription card in U.S. and Canadian issues

Editor John Morris Dixon, FAIA Executive Editor James A. Murphy, AIA Managing Editor Barbara McCarthy Senior Editors David A. Morton, Features, Books Richard D. Rush, AIA, Technics, Energy Nory Miller, Features Associate Editor Susan Doubilet, News, Features Pilar Viladas, Interior design Copy Editor Virginia Chatfield **Editorial Assistants**

Robert Jefferson

Graphics George Coderre, Art Director Susan Newberry, Art and Production
David W. Scott, AIA, Architectural drawing

Contributing Editors Norman Coplan, It's the law William T. Lohmann, AIA, FCSI, Walter Rosenfeld, CSI, Alvin D. Skolnik, FCSI, Specifications clinic

Correspondents Esther McCoy, Los Angeles Esther McCoy, Los Angeles
Barbara Goldstein, Los Angeles
Sally Woodbridge, San Francisco
George McCue, St. Louis
Peter Papademetriou, AI A, Houston
Ralph Warburton, AI A, AIP, PE, Miami
Carleton Knight III, Washington
Thomas Vonier, AIA, Washington
Jon Hayes Carlsten, AIA, Allanta
Monica Pidgeon, London
Joanna Baymiller, Minneapolis Joanna Baymiller, Minneapolis David A. Greenspan, Chicago Hiroshi Watanabe, Tokyo

James J. Hoverman

Daniel H. Desimone, Business Manager Louise Brischler, Administrative Assistant Margaret McGrath, Sales Service Manager Wilma M. Virgil, Manuscripts Nancy Lee Gallagher, Promotion Manager Lyn Munley, Promotion Assistant Vicki Nichol, Production Manager Sigrid Drumm, Promotion Secretary Gloria Adams, Director of Circulation Pamela Agacki, Fulfillment Manager Hetty Rizvi, Customer Service Manager

Penton/IPC

Progressive Architecture (ISSN 0033-0752) is Progressive Architecture (ISSN 0033-0752) is published monthly by Reinhold Publishing. A Division of Penton/IPC: Philip H. Hubbard, Jr., President; Harry I. Martin, James J. Hoverman, Vice-Presidents; Penton/IPC: Thomas L. Dempsey, Chairman; Sal F. Marino, President; N.N. Goodman, Jr., Benjamin L. Hummel, Paul Rolnick, Executive Vice-Presidents.

Executive Vice-Presidents.

Executive and editorial offices, 600 Summer St., P.O. Box 1361, Stamford, CT 06904 (203-348-7531).

Subscription information: Send all subscription or Send all subscription orders, payments, and changes of address to Progressive Architecture, P.O. Box 95759, Cleveland, OH 44101 (216-696o300). When filing change of address, give former as well as new address and zip codes, and include recent address label if possible. Allow two months for change. Publisher reserves right to refuse unqualified subscriptions. Professionals include architectural and architectural-engineering firm personnel and architects, designers, engineers,

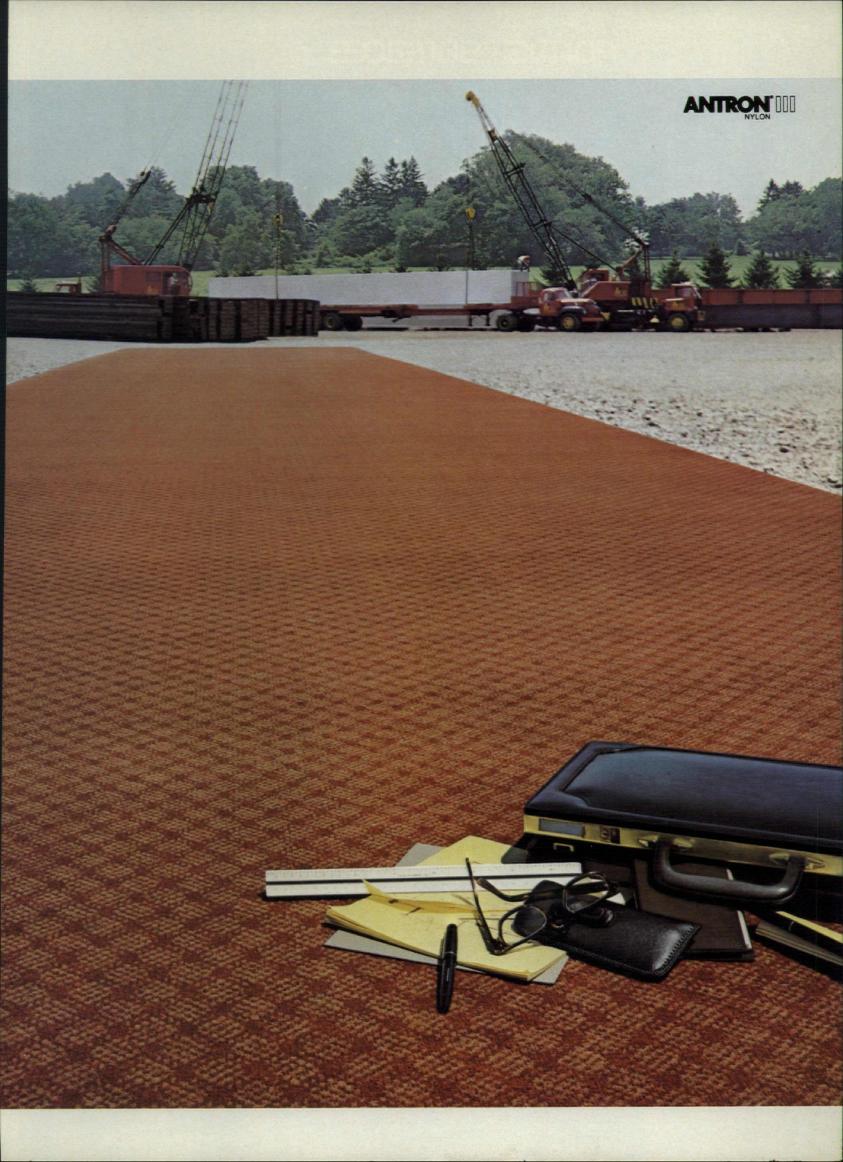
and draftsmen employed in allied fields. Subscription rates, payable in advance, are:

Professional:	U.S.	Canada	Foreign
1 year	\$18	\$22	\$40
2 years	34	38	70
3 years	49	59	98
Nonprofessional:			
1 year	36	42	60
Single copy:	6	6.50	7

Permission to photocopy is granted for users registered with the Copyright Clearance Center (CCC), provided that the base fee of \$1 per copy of the article, plus \$0.50 per page is paid directly to CCC, 21 Congress St., Salem, Ma 01970. Code number is ISSN 0033-0752/81.

Indexed in Art Index, Architectural Index, Engineering Index. Second class postage rates paid at Cleveland, Ohio, and additional mailing offices. Volume LXII, No. 12. Printed in U.S.A. Copyright © 1981, Penton/IPC.





FORMS+SURFACES



Acoustical Systems for Walls and Ceilings

A range of handsome, carefully detailed and easily installed acoustical systems in wood and metal for walls and ceilings. The most frequently specified products are available in our Quick Shipment Program for delivery within five working days. Wood wall and ceiling units are available with Class 1 Fire Rating.

Forms & Surfaces Box 5215 Santa Barbara, CA 93108 (805) 969-4767 969-5033

A decade in summary

Here, to mark the completion of ten years as Editor of P/A, is an attempt to digest developments in architecture over those years on a single page.

On December 28, 1971, I came back to P/A as Editor. The completion of ten years in this spot raises inevitable thoughts about the accelerating passage of time and inspires gratitude toward those who have entrusted me with the job and all those who have contributed their fine efforts to the magazine. Of more interest to readers may be some reflections on what has happened in our world of architecture over these turbulent years:

Utopian expectations have faded away. Up through the 1960s, the design professions hoped they could—one way or another—reshape and redeem the world. In the 1970s came the realization that grand plans and programs wouldn't sell-along with a timely shift in design ideology toward small-scaled

incremental strategies.

Design firms seem to have been dividing more sharply into types, which become fixed earlier in their lives. Those who do smallscaled work seem less likely than ever to graduate to big commissions, while ex-employees of big firms can regroup and quickly acquire far-flung, large-scale commissions. Some reasons: clients in the 1970s came to rely heavily on an architect's similar previous experience as a qualification for com-missions; many of the best known design innovators have appeared too rebellious to attract big commissions. At one extreme is a large new group of architects with widely known ideas who seem fated to design only on paper. At the other extreme, big firms that have dealt in numbing conformity have been beset by other firms marketing design with more distinction; they are now trying to shape up their designs-literally-to survive. Modernism lives, but no longer reigns. The dance of death over the fallen tyrant lasted all through the 1970s, but attention is shifting toward sorting out the alternatives. Modernism will survive, coexist with, and mix with other modes of design. Some work now being extolled (by Ada Louise Huxtable, for instance) as honest-to-goodness, born-again Modernism is in fact picturesque elaboration on Modern motifs.

Architectural history has risen spectacularly over the past decade and produced a flood of published material. Even the least intellectual architects have been caught up. Revision of history has become a hyperactive sideline, continually uncovering secrets that Giedion

never told us.

Reuse of old structures has moved from a fringe position, architecturally and eco-

nomically, to a central spot.

Mixed use has been transformed from a farout proposal to an article of faith. Like reuse, it has been stimulated by government policy (which architects promoted).

Writing by architects and about architecture

threatened to submerge us in sheer words during this decade. The tide of Oppositions obscurantism has ebbed, but architects still show congenitally poor taste in words. ("Itself," as in "addresses itself to"—a clumsy translation of the Romance "se"—is a legacy of the 1970s we may never shake off; the latest weakness is for sticking "hence," "in turn," "additionally," or such into every sen-tence in a pathetic effort to make everything connect.)

Architectural journalism has expanded remarkably in these ten years. Professional journals went through a severe contraction in the mid-1970s-from which we have recovered very nicely, thank you. But there was steady, rapid expansion in the amount of informed writing on architecture in newspapers and in the locality magazines that grew phenomenally during the decade. Add to this the torrent of monographs from Tokyo, the proliferating school-sponsored journals, and the recent resurgence of offerings such as Arts and Architecture and Skyline (see P/A book reviews next month).

Energy conservation in buildings has become a way of life professionally during these years, for those who flaunt it and for those who hide it in their walls and plenums.

Interior design has become a more integral part of architectural practice, partly because architects needed work badly in the mid-1970s, but largely because they have approached this field with renewed enthusiasm. Professional liability has imposed heavy insurance costs and other restraints on practice. Steps early in the decade to shed the unfair burdens that went with construction "supervision" were offset by intensified legal strategies and recently by some spectacular building failures.

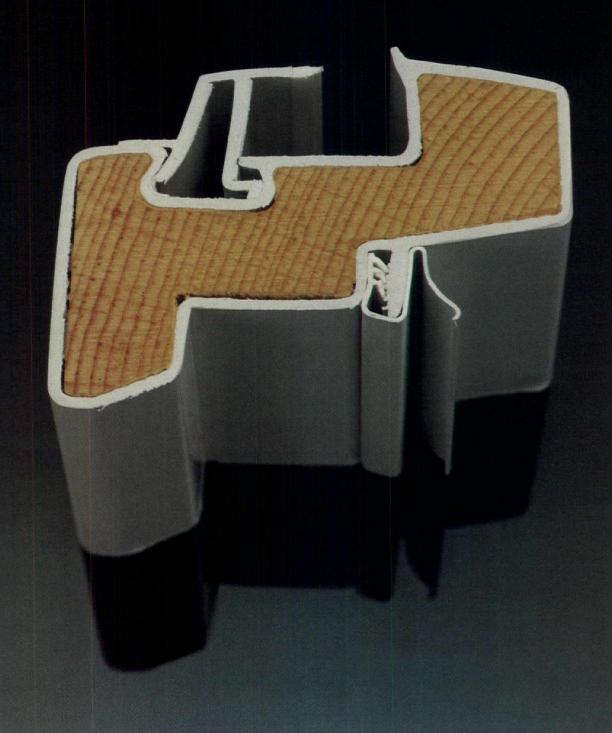
Professional solidarity was undone during this decade by the U.S. Justice Department. AIA can no longer prevent architects from advertising, cutting fees, etc. It can, however, offer authoritative guidance to its members and to the public; relieved of internal policing tasks, it has shown signs of doing these posi-

tive things better.

Has P/A served the profession well during the past decade? I strongly believe it has. We have revealed the turbulence of the period-even stirred it up a bit—while helping professionals to chart a purposeful course through it.

John Maris Difa

In the 60's the Perma-Shield® window was a revolutionary idea.



It still is.

In the 60's Andersen took a wood sash and completely enclosed it in vinyl.

The result was the Perma-Shield®

casement window.

A revolutionary idea that remains revolutionary because it offers architect, builder, owner, developer and manager advantages they still can't get in any other window:

1 The only completely enclosed sash.

It's created by extruding vinyl around a pre-milled wood sash. The wood core provides superior insulation and stabilizes the vinyl. The vinyl sheath won't need painting every few years. In fact, it's virtually maintenance-free. It's thick, tough and long-lasting. Stands up beautifully to handling and installation. And it protects the wood core completely. Shields the wood against the blazing sun, bitter cold and driving rain of the outdoors, the heat, humidity and condensation

The vinyl is available in white or earthy Terratone color.

of the indoors.

Optional triple glazing system also available for maximum reduction of heat loss.

2) One of a kind flashing.

Andersen extends the frame's vinyl covering to form a

continuous flashing/anchoring fin that has no seams, gaps or corner joints. Makes for easier, more weathertight installation.

3 Sash corner joints like no other.

Andersen *cornerwelds* sash stiles and rails together under extremely high temperature. This unique leakproof seal protects the wood core and greatly strengthens the sash's dimensional stability.

(4) The best frame joints...none.

Perma-Shield casement window frames are produced by bonding preformed rigid vinyl to the wood members. Preforming does away with corner joints. Eliminates four potential leakage points.

In the 60's Andersen distributors and dealers began offering a revolutionary new

window.

Their offer continues today.

Call them about using the Perma-Shield casement window in

your next design.
They're in the Yellow Pages
under "Windows." For more
details see Sweet's File 8.16/An
or write Andersen Corporation,
Bayport, MN 55003.



The beautiful way to save fuel®

Andersen Windowalls



3

(4)

80102 Copyright © Andersen Corp., Bayport, MN 1980

Circle No. 308 on Reader Service Card

Progressive Architecture 12:81

Views

Washed up on the New Wave

After seeing the "New Wave" interiors published in the September issue of P/A, I began feeling over-the-hill for the first time in my short professional career (Cornell '80). I suppose my shock could be compared to the reactions many were having in the seventies toward the people I grew up on, Venturi, Graves, etc. . . . even though I dislike the stuff, I'm glad to see it published . . . once.

Paul J. Byrne Levatich & Hoffman Ithaca, NY

I have been subscribing to *Progressive*Architecture for about eight years, and of all the architectural publications I receive—it is the one I read and reread every month.

It is because I like the magazine so much—that I must take exception with the September 1981 issue. It is, as one of the articles—"Washed up on the New Wave." First of all, the cover is a disaster. And most of the articles/interiors remind me of the kind of article which appeared in the last few issues of *Residential Interiors*. That magazine is no longer being published, and it is clear to me why.

I do not feel that these brash rooms have a nostalgic fascination with materials, but are done purely for shock value. The fact that they are presented in *Progressive Architecture* is one compromise you should not have made.

C. Terry Holland, ASID Macon, Ga

I have found that I have been spending less and less time reading P/A since the "coming" of Mr. Peter Graves and his followers and their over exposure in your magazine. I set an all time personal record of less than five minutes paging through all of the "nonsense" you featured in the September issue.

Raymond W. Sipe Radcliff & Sipe Architects West Chester, Pa

[Then again, the real culprit may be Charles Venturi.—Editors]

Thank you for Suzanne Stephens's stunningly perceptive review of Philip Maberry's delightful loft project in New York (P/A 9:81).

We sincerely hope that PA's design reporting will continue to cover projects of this caliber since we have, on the strength of the Maberry article alone, cancelled our subscription to *The National Lampoon*.

Darrel Rippeteau, Amy Gardner Darrel Downing Rippeteau, Architect Washington, DC

While delighted by the informative essays by Barbara Goldstein and others explaining background and the "aesthetic" of New Wave, the nauseous invasion by Pattern on Pattern (re: Philip Maberry Loft) nearly negates what positive elements the September 1981 issue has to offer. While appreciative of the effort to investigate and digest what impact or possible foreshadowing today's movements might have upon life tomorrow, the only movement I can associate with the Maberry Loft is a bowel movement . . . certainly not worthy of photographic prose. I view it as an insult, not design or art. David L. Yellick, Associate

David L. Yellick, Associate Kratt/Myers Associates La Crosse, Wi

The "Essay" by Michael Sorkin (P/A, Sept. 1981, p. 189) is a welcome breath of tainted air in the sealed world of formalism/technics that P/A usually inhabits. His prose is turbid, thankfully it was restricted to one page; some of his statements are laughable, e.g., "punk . . . [is] the historicism of a progressive-thinking class." What I welcome is his implicit recognition that architecture and mass design are social arts inexorably linked to the myriad weaknesses and strengths of a nation's character, beliefs, and biases.

David R. Weaver, Architect Los Angeles, Ca

Elderly living

It was good to see your report (Aug. '81) on Robert Herman's elderly housing development, George Woolf House in San Francisco. The dignity and grace of his design goes a long way toward compensating at least some of the people who lost their homes and neighborhoods in a classic urban renewal tale.

P/A readers might be interested in a more detailed description of the user needs study Jerry Horovitz and I undertook for the community client and Herman, which was mentioned in the article. The techniques we used-small group discussions with potential occupants, using slides to illustrate specific design options—are described in detail in an article published in the August 1976 issue of The Gerontologist. An updated report on that study, incorporating a post-evaluation occupancy survey, will also appear in Housing for the Elderly: Satisfactions and Preferences, edited by Victor Regnier and Jon Pynoos, which Garland Press will publish next year. Chester W. Hartman

Institute for Policy Studies
Washington, DC

Energy teamwork

I was impressed by your energy analysis of the Portland Public Office Building, which appeared in the October issue of *Progressive Architecture*. However, I was utterly amazed by the fact that no mention at all was made of the engineers on the project, structural engineer De-Simone & Chaplin, our client, and mechanical engineer Thomas A. Polise, who were responsible for evolving the project's energy system from Michael

Graves's controversial design. That system was possible through the close partnership of the engineers, and was a result of major structural changes which were necessary *after* the Graves design was approved.

The energy system in the Portland Public Building is impressive, and aptly analyzed by Mr. Bazjanac. How that system was created is an equally impressive side of the story, and was left untold. Even some brief background to the analysis, and remarks from the engineers involved, would have been of great interest to your readership, and exhibited responsible reporting.

Brian H. Sear Account Executive Thomas A. Hogarty Rockville Centre, NY

[The Portland Public Office Building energy analysis was the first one not accompanied by an article describing the building and crediting all the contributors to its design. In an effort to expand the analytical content, we omitted the full list of credits. Although the mechanical systems were not part of the evaluation, the mechanical engineer undoubtedly played a role in reducing total building energy consumption.— Editors]

Air flow window: a Russian first

Just a small correction re air flow window (P/A, Sept. 1981, p. 236). You mention the idea is not new because it has been developed by a Swedish . . .

The idea has been developed in the late 1920s by Le Corbusier and used on his Controsoyus building on Kirov Street in Moscow (it was built 1929–1933).

PS: Your article on Insulating Glass is excellent.

Jan Reiner, Architect St. Petersburg, Fl

Moving?	Let us know 6-8 weeks in advance so you won't miss any copies of P/A.
AFFIX LA	BEL HERE
New address:	
Name	
Title	
Company	
Address	
City/State/Zip	
Type of firm	
Mail to: Subscription Service Progressive Architer P.O. Box 95759 Cleveland, OH 4410	cture



WALL - GL MARBLE - ST. PETER TRAVERTINE POLISHED 2'x 2'x 1/4" THICK INSTALLED WITH THIN-SET ADHESIVE OVER GYPSUM WALLBOARD

GL Marble



Natural Marble Only 1/4" Thick In Large Sizes

GL Marble is a new product from a new technology - FIBERMAR GLASS® - a process whereby blocks of natural quarried marble are sliced into thin sheets only 1/4" thick, reinforced with fiberglass and cut into standard sizes up to 2'x2' and 2'x4'. Manufactured in Italy, GL Marble is now stocked in the USA in a wide range of colors. The light weight (only 3.7 psf) and large sizes offer many advantages over thicker heavier slab marble. It can be installed like ceramic tile with thin-set adhesives on walls and floors over gypsum wallboard, plywood, plaster, and concrete. it is ideal for use in lobbies, offices, bathrooms, showers, fireplace walls etc.

Write for free catalog, specification data, and installation instructions. A library type sample folder containing actual color samples is available at a nominal charge of \$15.00.

MARBLE TECHNICS LTD

SHOWROOM • ARCHITECTS & DESIGNERS BLDG 150 E. 58 ST. NEW YORK, N.Y. 10155 • (212) 750-9189

Philadelphia

Integrity Tile Old World Tile Master Tile American Tile Modern Plastics Intertile Intertile (215) 627-4811 (312) 329-1295 (713) 688-2771 (214) 263-6248 (303) 761-1472 (213) 841-7015 (415) 788-6880

Los Angeles

San Francisco

Circle No. 339 on Reader Service Card

When was the last time your elevator said "Good Morning"?



No high-rise elevator can match the new Elevonic 401 for technological innovation and comfort. As with its predecessor, Elevonic 101, all normal elevator functions are controlled by microcomputers. This improves car leveling, reduces waiting time and cuts energy consumption by 30%.

But what's really exciting about Elevonic 401 are the features we've added that make traveling by elevator a lot easier—for everybody. Like the distinctive car operating panel that's easy for tall people and short people to use. Or the voice that announces floors and car direction.

There's an electronic screen that can display everything from the latest news and weather to stock reports. It even has a coded push button security system that limits access to certain floors. Naturally, it exceeds code requirements for the handicapped.

Contact your nearby Otis representative today and find out why everybody is talking about our Elevonic 401 system.



Circle No. 340 on Reader Service Card

PA News report

L.A. Awards: Surprises

The Los Angeles AIA announced its 1981 Design Awards this fall, and it was all very unexpected: so few jurors, so many awards, and no gradations—just pass/fail. Moreover, no cliques pre-dominated, and the buildings in the mainstream were more rigorously judged than the sprouts that broke new ground. Energy concerns and land use often got more points than the forms. And another innovation: jurors Barton Myers, Norman Pfeiffer, and USC Dean Robert Harris instituted a new category, single family/studio, which sanctioned greater density in Los Angeles—a signal to young architects to experiment in ways to squeeze in more beds without disturbing the sleepers.

Awards for mixed use went to Rob Wellington Quigley's QBM Theme Building, with its variations on Palos Verdes' prevalent Spanish Colonial style; Bissell Associates' finely disposed Peter's Landing; and Frank Gehry & Associates' urbane Santa Monica Place

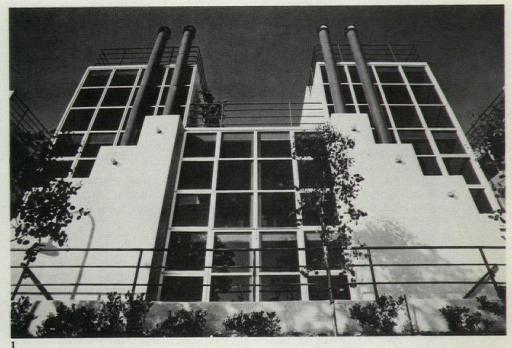
(P/A, July 1981, p. 84).

Representing mainstream high-tech were John Carl Warnecke & Associates' Harbor Dept. Administration Building, with its continuous gallery between steel frame and glass wall; and Charles Kober Associates' Flight Simulation Lab in Hawthorne with interiors in scale with the sci-fi machines.

A multiple housing award went to Urban Forms/Steve Andre's high-tech Sun-Tech Townhomes, handled assertively; and a second to Bobrow/Thomas & Associates and Charles Moore/Urban Innovations Group for subsidized Kings Road Housing for the elderly, with its sense of place in a gentle environment.

The three awards in the new single-family/studio category tell as much about land use as revolt. Steven Ehrlich's Kalfus studio for a painter is on a 35-ft sliver that dwindles as it reaches a steep slope above a wild canyon. Ehrlich gave the front of the studio to Neutra's 1957 house next door and the back to greenhouse tech, then installed a movable wall to close out light that would interfere with painting, and brought in north light from the roof.

In the high density beach community of Venice, where some lots are only 20 ft wide, Morphosis has developed a unique alley style, a throwback to the

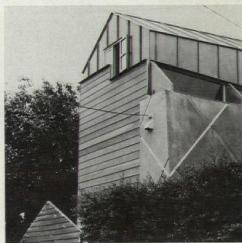




1 Sun-Tech Townhouses by Urban Forms/ Steve Andre. 2 Indiana Avenue Project by Frank Gehry & Associates. 3 Sedlak House Addition by Morphosis. 4 Kalfus Studio by Steven Ehrlich.

1920s apartments above detached garages with scallops around corner windows, which they have applied in their award-winning Sedlak House Addition. The Morphosis alley image is art out of lumber yard scraps, assembled intellectually.

The two Janus faces of the Gehry office showed up in awards in the studio category and the mainstream, with the experimental face seen in three studios on the same small Venice lot. Now it is scrap-bin plywood that Gehry exploits; in its raw form it is as startling as once were form marks on raw concrete. And as vital. [Esther McCoy]





Report from Dallas

Regionalism and urbanity in Dallas

Virtually surrounded by separately incorporated communities, Dallas's potential for future growth has begun to evolve into a variety of forms. Where gaps exist in regional physical fabric, such as on its north side towards the sleepy hamlets of Lolaville and Frisco, Dallas oozes out to continue expansion. Traditional jurisdictional limits also seem inadequate in describing the dynamics of urbanization; while Fort Worth was historically a full day's ride away, present-day cultural identities have begun to function within the reality of what is locally called the "Metroplex." The 17,500-acre Dallas-Fort Worth Regional Airport has become a major factor of this reality, but the scale of regional development has become so continuous that old names such as Arlington, Irving, Garland, Farmers Branch, Grand Prairie, Mesquite, and Richardson appear as nostalgic recollections of a time past. Yet even as this growth phenomenon has broken traditional perceptions of the urban environment, Central Dallas, in the image of "The City," has begun to renew itself.

The West End

John Bryan chose the eastern bank of the Trinity River as the site for a town in 1841, and with the coming of railroads in the 1880s, a warehouse district developed nearby. By the mid-1970s, this area had substantially declined in use, although it still represented one of the few intact districts of its type west of the Mississippi River. In 1975, the Dallas City Council designated the West End Historic District as a mixed-use precinct. Inclusive of several county properties, as well as historic sites such as the JFK Memorial, the main body of the 55-acre area extends north of Elm Street to either side of Market Street, terminating at Munger where the coming together of Dallas's two grids constricts and closes the district. Emphasizing the continued mix of traditional uses with new development, the ordinance seeks to preserve the architectural character of the area through design standards and authority of approval. In practice, the balance between city controls and individual property rights is undergoing fine-tuning. Early developers entered the district with positive intentions; the block-wide Landmark Center developed by the late Herman Blum and 1800 North Market housing the offices of architects Dahl/Braden/Chapman are two examples. The City of Dallas undertook infrastructure improvements recently completed in a first phase along the Market Street corridor to the 1980 recommendations of Turner, Collie & Braden and SWA Group. Beyond this, the rising values have brought in speculators so that financial numbers are beginning not to work. A more active direction of the City of Dallas, perhaps involving a significant shift in

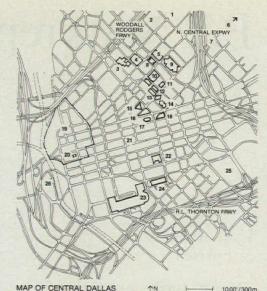
city government for the position of the Director of City Planning, might be necessary to stimulate a greater use diversity, including residential. Ultimately, the West End's feasibility as an urban alternative will also depend upon a creative strategy free from a strictly preservationist formula.

The eastern precinct

On the opposite, eastern edge of the Central District and at the fringe of Dallas's first historic district of residential Swiss Avenue, another precinct is undergoing renewal. Fox & Jacobs, traditionally associated with suburban single-family tract housing, undertook a gradual trusteeship purchase of scattered parcels in lower Swiss Avenue. Some 10 acres assembled were available adjacent to Exall Park on the site of the old St. Paul's Hospital, which had burned in the 1960s. In 1978, the City Council passed another ordinance featuring a buy-back guarantee incentive for redevelopment of inner-city areas. High-density zero-lot-line singlefamily units were programmed by Fox & Jacobs at the core of development, some 134 total as initial phase. Small lots (45' x 75') are created by the introduction of new streets having a narrower overall width and no curb, and while Dallas maintains these dedicated streets, and city services are available, all homes in Bryan Place are provided with sprinkler systems. The homes, which average \$135,000-\$165,000, are a definite move to bring a new sort of urban pioneer to an area only some six blocks outside of the Central District. Three-story condominiums, serving as a buffer to the freeways and the commercial edge, are presently under construction and will be in the \$60,000 range. This activity has given impetus to improvements in adjacent Exall Park, for which bond monies were approved nearly a decade ago. Fox & Jacobs has also maintained somewhat of a "scattered site" and infill treatment to their development, including occasional properties whose existing ownership is maintained as well as several rehabilitations of existing structures. Other developers, as a result of this activity, have begun to have plans for the area. The future integration of these projects with the existing neighborhoods seems to mandate additional action by the public sector.

The CBD: Coordinate 1

Pressures for inner-city living have also extended to the Central District. The north edge, bounded by North Central Expressway and Woodall Rodgers Freeway, is a reserve of land held by Trammell Crow, who states, "There is going to be living in the Central Business District, and if the buildings were there today, they would be occupied." To date, the financial markets have not advanced to facilitate such high-rise residential construction; nevertheless, a



1 Trammel Crow residential site 2 Possible Symphony site 3 Dallas Museum of Fine Arts 4,5 Future Trammel Crow 6 Bryan Place, 4 blocks 7 Bryan 8 San Jacinto Tower 9 Plaza of the Americas 10 Diamond Shamrock 11 2001 Bryan 12 Olympia/York 13,14 One and Two Dallas Centre 15 Arco 16 Thanksgiving Square 17 Placid/Elm 18 Cadillac Fairview 19 West End Historical District 20 JFK Memorial 21 "Old" CBD 22 New Central Library 23 Convention Center 24 Dallas City Hall 25 Market District 26 ReUnion

survey of the shifting center of gravity of Dallas's CBD shows that recent growth is in a quadrant moving towards this anticipated development. Not only have a string of buildings emerged in the district surrounding Thanks-Giving Square (Johnson & Burgee) such as the IDS-knockoff Thanks-Giving Tower (Harwood K. Smith), the ARCO Tower (I.M. Pei & Partners), Cadillac-Fairview Building and Olympia-York Building (WZMH-Habib) and One Dallas Centre and Two Dallas Centre (I.M. Pei & Partners), but Trammell Crow has extended this district with his own string of towers. These are slowly making a beeline towards the projected residential area and include, in chronological sequence heading North, 2001 Bryan Tower (Neuhaus & Taylor), Diamond Shamrock Tower (Jarvis Putty Jarvis) and San Jacinto Tower (John Carl Warnecke). In addition, Plaza of the Americas (Harwood K. Smith) anchors the eastern edge, and two more parcels adjacent to Diamond Shamrock and San Jacinto will give substance in this shift within the Central District. Complementing this is the location of the Ed Barnes-designed Dallas Museum of Fine Arts currently under construction and proposed sites for both Symphony and Opera. This string of developments, parallel to the Woodall Rodgers Freeway, under construction presents a linkage between mixed uses extending from the West End Historic District on the one side to Crow's future residential area on the other, connected by an arts district and bordered by an intense concentration of new commercial office development.

Coordinates 2 and 3

Ultimately, however, the Central District, while diverse in its opportunities, is one of three major coordinates at a regional scale. A second is the "Quorum"

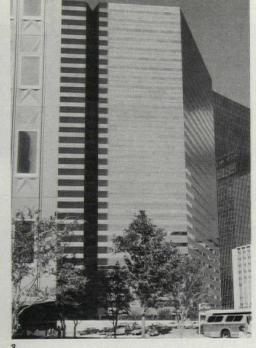




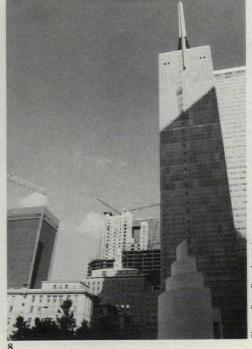












area on the North side around the East-West (B) Freeway (IH-635) and the North-South Dallas North Tollway and Central Expressway (US-75). This area is just beginning to cohere. The third coordinate is that of Las Colinas, a virtual new town of some 12,000 acres between Dallas and the D/FW Regional Airport in the city of Irving, Tx, being developed through Southland Real Estate Resources, one of the companies owned by Ben Carpenter.

Las Colinas itself dates from 1973, but the site originated out of Hackberry Creek Ranch lands begun in 1929 by the late John Carpenter; the Carpenter family still resides in the ranch property now within and adjacent to the new development. Some six residential "villages" of executive community enclaves, incorporating some apartment development and anticipated moderatepriced homes, are part of Las Colinas, although its primary growth has been in corporate development. Relocation has brought in national headquarters of The Associates, Caltex, IBM Data Processing (consolidating East and West Coast operations), the Boy Scouts of America, and Flintkote. These are in office parks between first-phase villages and the pièce de résistance, the 950-acre Las Colinas Urban Center. It is here that Ben Carpenter's ideas are given full form: multiple high-rise office buildings rise above the prairie 12 miles from Central Dallas and are strung along a four-story base facing a canal system created off Lake Carolyn. In jarring contrast to the sleek towers, this base (which contains several levels of structured parking) presents a veneer of traditional façades with picturesque spaces. The first increment was developed by Southland as a prototype to set the style that Ben Carpenter clearly feels reflects a "people place." Given the anonymity of many corporate plazas, he is not far off the mark, but the juxtaposition is furthered by a projected transit system whose first-phase elevated busway slices through a Spanish Colonial Revival terminal above the canal.

Yet, Las Colinas characterizes the emerging Dallas. Growth directed towards the goal of an urban environment requires attention to the diverse details of physical fabric. Here, however, urbanity is evolving at a regional scale, and a larger view of linkage and relationship will have to be sustained in order to reform concepts and clarify images of The City. [Peter Papademetriou] [News report continued on page 30]

1 CBD skyline, view to south. 2 Las Colinas

urban center, canal level. 3 Republic National Bank (Harrison & Abramowitz), left; One Dallas Centre (I.M. Pei & Partners), center. 4 Plaza of Americas interior. 5 West End: 1800 N. Market. 6 West End: Landmark Center. 7 new condominiums, Bryan Place. 8 Thanks-Giving Tower under construction (Johnson's Chapel in foreground).





Many high-rise apartments and hoteltype structures have been built with the Staggered Truss steel framing system. It allows efficient and economical use of structural steel, with great flexibility and erection speed.

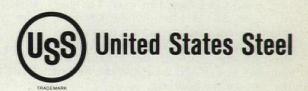
The planners of the 13-story, \$9,000,000 Holiday Inn in Bloomington, Minnesota, wanted the most economical system, and selected three framing methods for study: a cast-in-place, post-tensioned concrete system, a conventional steel-framed system with beams, girders and columns, and a conventional steel system for the lower two stories combined with a Staggered Truss system for the upper 11 stories.

The Staggered Truss system was chosen because it offered so many planning advantages. Most important of all, it would result in fast erection—a major consideration since most of the steel was erected during Minnesota's severe winter months. In fact, steel erection was completed in just fifteen weeks and one day—January 24 to May 9, 1980—which includes 9½ working days lost due to inclement weather!

In the upper 11 stories of the 13-story tower, staggered trusses span the 60 feet between exterior columns—spaced at 25'-8". The project required a total of 488 tons of ASTM A36 and 416 tons of ASTM A572 Grade 50 steels.

Like the planners of the new Bloomington Holiday Inn, you'll find Staggered Truss easy to work with. When evaluated against other systems it will often prove to be the fastest, the most practical and the most economical. It's worth looking into.

For more information on this building, contact a USS Construction Representative through your nearest U.S. Steel Sales Office, or write for the USS Building Report (ADUSS 27-7874-01) to U.S. Steel, Box 86, (C1514), Pittsburgh, PA 15230.



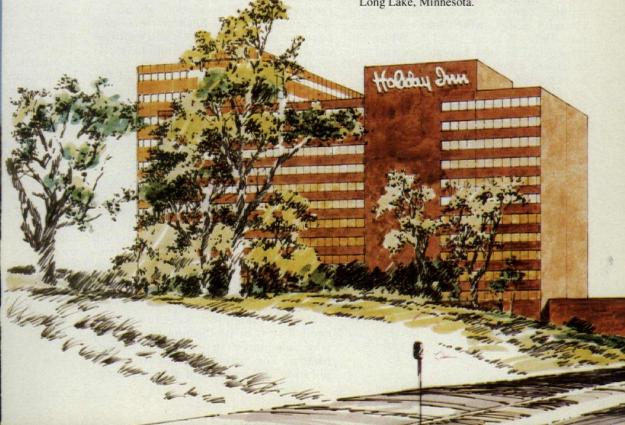
Circle No. 350 on Reader Service Card

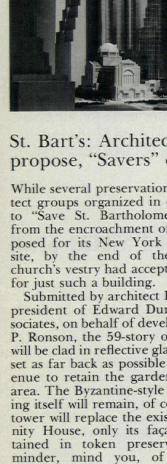
OWNER: Seymour N. Logan Associates, Chicago, Illinois. DESIGN/BUILDER: Finance/Design/Construct Inc., Bloomington, Minnesota.

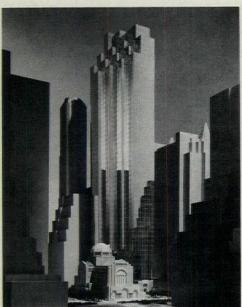
ARCHITECT/STRUCTURAL ENGINEER:
Ellerbe Associates, Inc.,
Bloomington, Minnesota.

STEEL FABRICATOR: L. L. Le Jeune Co.,
Minneapolis, Minnesota.

STEEL ERECTOR: Vickerman Construction Co.,
Long Lake, Minnesota.







St. Bart's: Architects propose, "Savers" oppose

While several preservationist and architect groups organized in early October to "Save St. Bartholomew's Church" from the encroachment of a tower proposed for its New York Park Avenue site, by the end of the month the church's vestry had accepted the design

Submitted by architect Peter Capone, president of Edward Durell Stone Associates, on behalf of developer Howard P. Ronson, the 59-story office building will be clad in reflective glass, and will be set as far back as possible from the Avenue to retain the garden and terrace area. The Byzantine-style church building itself will remain, of course, but the tower will replace the existing Community House, only its façade being retained in token preservation (a reminder, mind you, of the present church's design, which had to incorporate 1902 McKim, Mead & White entrances). The first five stories and two basement floors of the new building will be provided rent-free to the Church for its Community House services, and these will be given a separate entrance.

The "Save St. Bart's" group worried about the loss of parklike space with an open view of the sky, an unusual treasure on dense Park Avenue; and they feared a disturbing clash with the mellow brick architecture of the existing 1919 Bertram Goodhue church group. Their fears were well founded. Despite the retention of Princeton Architecture School Dean Robert Geddes, who established architectural and environmental criteria and who approved the Capone

design, the experience of the existing garden will inevitably be compromised by the looming tower; and the jazzy glassiness of the new building will harmonize, if at all, with the increasing number of glossy buildings on the Avenue, and not with the earlier, discreet masonry structures.

But the church's vestry was worried, too: according to its financial projections, the church would have been insolvent by 1989. With the Ronson plan, the parish will receive an annual ground rent of \$9.5 million, half of which will be used to repair and maintain the church building and support its activities, and the other half of which will be contributed to religious and human service causes outside the parish. Despite its years of tax exemption as a religious institution, the church apparently does not feel it owes the public the tribute of preserving its property's beautiful configuration by searching for another route out of its financial problems.

Which worry will win? Ecclesiastical and civil boards will decide. The proposed building must be passed by its 700 parishioners, the bishop and standing committee of the Episcopal Diocese of New York, the Landmarks Commission, City Planning Commission, Community Board 5, and the Board of Standards

and Appeals. [SD]

AIA to reorganize, merge functions

Pending final approval expected in early December by the boards of directors for the five corporations involved, the American Institute of Architects will begin immediately a major two-year reorganization. The action will merge the AIA Research Corporation with the nonprofit AIA Foundation and will consolidate several AIA-owned corporations into a new for-profit services organization. The move is expected to increase the AIA's efficiency greatly, reduce member confusion about responsibilities at its headquarters, and pave the way for the AIA's entry into an entrepreneurial arena that will help offset the costs of member services.

The AIA Corporation, owner of the headquarters buildings, and Production Services for Architects and Engineers, or PSAE, purveyor of MASTERSPEC, will combine with the AIA Journal and several other parts of the AIA to form a single AIA Services Corporation. The new profitmaking enterprise will be headed for the time being by AIA executive vice president David O. Meeker, Jr., FAIA. The AIA Foundation, owner of the Octagon House and home of the college of AIA fellows, will retain its name but will have two "membership councils" and divisions, one for research and one for arts and education. Belonging to the membership council will be optional.

Meeker called the reorganization a needed step in positioning the AIA to take advantage of emerging opportunities. For example, the services corporation will own all of the AIA computer and word-processing equipment. "We are very concerned about finding ways to use the enhanced computer facilities to improve communications among our state and local chapters," he "Within three years we expect to link to terminals in each of the 50 states, making our databases, records, and other information directly accessible to the membership." Other AIA staff reported discussion of increased publishing activity, the possible sale of in-surance, and even the marketing of drafting supplies at substantial discounts to members.

Improved management is also cited as a major reason for the reorganization. "We have had operations here acting in a unilateral manner," said Meeker. 'This has made it difficult to apply consistent management principles throughout the organizations." board executive committee of the American Institute of Architects, a professional membership corporation that will remain intact, will serve as the services corporation board. The AIA Foundation board will be an amalgam of the AIA/RC and Foundation boards, with some outside members and some elected by the membership councils.

"There will be a new accountability," said Meeker, "because we will know exactly where and how dues are spent. For the services members don't want or can't use, there will be new choices." As to whether there will also be new price tags, AIA president R. Randall Vosbeck, FAIA, said a lowering of member dues is "conceivably on the horizon as a result of some of the economies we'll achieve through the reorganization." At present the AIA's income from nondues sources makes up 53 percent of its \$12.5 million annual budget, and the percentage has risen steadily. This was cited by Meeker as one reason why the for-profit services corporation should be able to relieve the AIA's need for income from dues

sources.

There had been concern expressed that the AIA Research Corporation would "swallow up" the Foundation. The Foundation's budget will increase to nearly \$1.5 million from a much lower figure and its staff will quadruple as a result of research contracts in hand at the AIA/RC. Research Corporation president Charles R. Ince, Jr., sees the aims of the two organizations as compatible, however, and believes the merger will benefit all interests. The Foundation is in the midst of a major endowment drive, much of it directed toward private corporations. With federal sources of support for building-related research dwindling, the AIA/RC has also looked increasingly to private funding. "The merger will give us a unified front in the search for support," said Meeker.

Adding possible tax benefits to the list of reasons why the reorganization is an [News report continued on page 34]

Gail Brickplate Panels
in Steel Stud Framing!

This new prefab system offers "Mercedes-Benz quality at VW prices."

Basic elements are shown in the cutaway drawing. Significant advantages are obvious: Tons of expensive design deadload and structural mass are eliminated since panels weigh 80% less than precast concrete Significantly less expensive than glass or aluminum curtainwalls
Eliminates costly scaffolding
Provides a chase for pines and wiring

 Eliminates costly scaffolding
 Provides a chase for pipes and wiring in exterior walls for faster, more economical installation • Virtually maintenance-free—no painting, sandblasting, acid-cleaning • Work proceeds regardless of bad weather since panels are assembled in an enclosed structure • Excellent insulation values, energy efficient.

For the ultimate in architecturally beautiful exterior walls . . . on a tight budget . . . the prefab Gail Brickplate system warrants your interest. Write or call for our new Technical Brochure "Prefab Brickplate Panels."

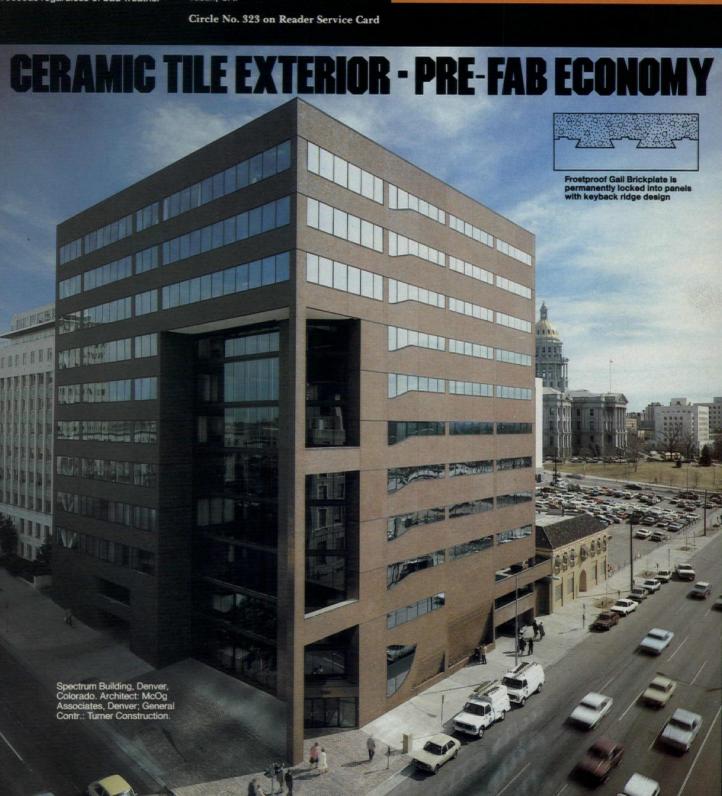
Gail

ARCHITECTURAL CERAMICS 14791 Myford Road / Tustin, CA 92680 (714) 731-8361

For locations of nationwide sales offices, warehouses and distributors, contact Gail's U.S. headquarters, Tustin, CA.

A. Gall Brickplate Tile (Reypack Design) B. % leveling coat of cement plaster with latex and chopped fiberglass strands C. 3.4 lb. self-furred Diamond Mesh Metal Lath (galvanized or painted where rust-resistance is required); secured to studs with self-tapping screws (washers optional) D. 15 pound tarred felt stapled to gypsum board E. Tongue and groove asphalt impregnated ½" thick gypsum plaster board (Installed horizontally, tongue up) F. ½" latex modified portland cement; scored, toothed, troweled G. %" scratch cement plaster H. Gypsum board screwed to steel channels I. 1½ into plaster stop, tack screwed to frame 12" on center J. 16 gauge steel channels, 16" to

A B C D E





In this museum, the elevators are works of art.

The architects who converted the old Lone Star Brewery into the new San Antonio Museum of Art envisioned the elevators that serve its two towers as dazzling kinetic sculptures.

The glass-walled cabs move through hoistways of glass and mirror-finished steel. The clearly visible counterweights, sheaves and pit buffers are chrome plated to celebrate their functions and to produce elegant reflections of their form and movement. Rows of tiny lights are mounted on the tops and bottoms of the cabs to further delight the eve.

At Dover Elevator, we were proud to be selected

to build and install these distinctive elevators. And our Dover craftsmen were pleased to have the opportunity to display their skills in an art museum context.

Although every Dover Elevator installation may not be as spectacular as the San Antonio Museum of Art, each receives the same meticulous attention to detail. For more information on the complete Dover line of Oildraulic® and traction elevators for low-, mid-, and high-rise buildings, write Dover Corporation, Elevator Division, Dept. 683, P.O. Box 2177, Memphis, Tennessee 38101.

The elevator



idea whose time has come, Meeker and others at the AIA Headquarters expressed great enthusiasm for the prospects. "The AIA is finally entering the last half of the 20th Century," said one staff veteran, "and although some people have resisted the specifics, everyone will benefit from and welcome the overall change." [Thomas Vonier]







Top: exhibition opening. Middle: l-r, moderator Dixon, jurors Goldberger, Lyndon, Jordy. Above: l-r, panelists Caudill, Wallace, Turnbull, and Stern.

Exhibitions and talks at Rice building opening

A juried exhibition of "Houston Architecture since 1945" and panel discussions marked the opening of the expanded School of Architecture at Rice University (pp. 53–61). The scope of the show made excellent sense, since Houston's explosive growth began simultaneously with the ascendance of the Modern Movement after World War II. Having built with ambition and sophistication, Houston can be viewed as representing the heyday of Modern Architecture in America.

Selection of buildings for the exhibit was made by a panel of eminent outsiders: art historian/author William Jordy of Brown University; architect/teacher Donlyn Lyndon of Berkeley; and critic Paul Goldberger of *The New York Times*.

Out of about 600 candidates gathered by the Rice staff, under Drexel Turner's direction, the panel chose 62. By the time the show opened, the lists of ins and outs had become the subject of debate among local architects. Why were all of the downtown towers now under construction by firms such as SOM and I.M. Pei left out, while yet-to-be-started projects by Charles Moore, Venturi, Rauch & Scott Brown, Johnson/Burgee, and Cesar Pelli were included? Why was the fledgling firm of Taft Associates represented by as many projects as the giant Caudill Rowlett Scott? (Partly because the bulk of CRS's work is outside the Houston area, and therefore ineligible.) Why were the Astrodome and the Galleria included? (Good or bad, said jurors, they were significant as prototypes originated in Houston.) Everyone seemed pleased with inclusion of some fine work from the 1940s and 1950s by architects such as MacKie & Kamrath and Bolton & Barnstone.

The jurors got a chance to present their views on Houston architecture at a colloquium. Aside from some generalities about choosing for "significance" rather than for quality alone, the jury offered few specifics about a process that was admittedly loose and subjective.

The talk was instead about what distinguished Houston—its lack of discernible organization, its few indications of architectural response to a punishing climate, the contributions of its patron clients, its seemingly endless pressure for growth. Goldberger noted that it might be the only major U.S. city where such an exercise would include no reused buildings at all. Jordy urged the audience to pay more attention to one historical type—the characteristic pre-1945 bungalow that spreads low under the live oaks.

Other events in connection with the building opening included two talks by James Stirling, best known of the new school's architects, and a lively symposium on architecture for the 1980s with architects Robert Stern of New York, William Turnbull of San Francisco, and planner David Wallace of Philadelphia, with moderator William Caudill of Houston—a team that could hardly be beat, in this profession for witty, articulate platform performance. [John Morris Dixon]

Advertising: The 'big bang' approach

The "Ethical Principles" of the American Institute of Architects leave open to interpretation the manner in which business development might be handled through advertising. "Members should uphold the credibility and dignity of the profession" and "thoughtfully consider the social and environmental impact of their work," but what's one architect's fish is another's poisson.

And now Houston is abuzz with the high-profile advertising approach taken by the firm of Morris-Aubry architects. Always the bridesmaid, never the bride, the firm has been associate architect on





many jobs. S.I. Morris, in practice since 1938 and patriarch of the firm, observed that "our opportunity comes just once. If you miss that project, your client is gone."

The Marshall Pengra Company/Advertising analyzed national markets, regional lender/developer sources, and Texas magazines read by outsiders. The over-\$200,000 campaign has included Texas Monthly and Houston Business Journal. Eastern and southwestern editions of Wall Street Journal have carried the ads, as have southwestern editions of Newsweek, Time, and Sports Illustrated. Southwestern, Chicago, and New York editions of Business Week, Dun's Review, Nation's Business, U.S. News & World Report, and National Real Estate Investor have all been used.

The first ad featured S.I. Morris in front of Brown & Root, Inc., and the most recent version shows Gene Aubry leaning on First City Tower; three subsequent ads will promote specific service areas of the firm and feature additional personalities. Clearly the impact is one [News report continued on page 36]

ikria JG

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

Design by Dave Woods JG Furniture Systems A Division of Burlington Industries Quakertown, PA 18951 215 536 7343

Circle No. 329 on Reader Service Card



of the "big bang" approach, and reviews by professional colleagues have ranged from bemusement to tight-lippedness. The precedent-setting attitude of Morris-Aubry will be of interest to the profession itself, but in the meantime, as Morris observed, "... if you're going to get criticized for advertising because you're an architect, you sure as hell might as well do a good job of it." [Peter C. Papademetriou]

Mixing Breuer and Graves

Michael Graves, one of the most "exhibited" of contemporary architects (his drawings are currently being shown from Rome to Cincinnati in galleries), will soon have the opportunity of building an important museum, if Whitney trustees and fund-raisers have their way. The Whitney Museum of American Art has asked Graves to design an extension to its 1966 building by Marcel Breuer and Hamilton Smith, on Madison Avenue in Manhattan. The extension will double the current exhibition space and will occupy the remaining blockfront south of the Breuer building, replacing existing small buildings containing shops.

The proposition of the new building is interesting on several counts. First, its program includes independent com-

mercial space on the ground level, a practice followed in one other museum in this country, Louis Kahn's Yale Center for British Art in New Haven. The inclusion of shops will tie the new building into the context of boutiquelined Madison Avenue, and while it stops far short of the Museum of Modern Art's air rights condominium development, will further the effort to tap new income-producing sources for cultural institutions.

Second, it will be fascinating to see what the idiosyncratic Graves proposes to place next to the Breuer building, itself nothing if not idiosyncratic. The existing museum does possess a refinement and, in fact, the hint of genius missing from many of Breuer's later buildings: its exhibition spaces are extremely successful, its detailing, notably its staircase, is often poetic, and its contrarily cantilevered massiveness is so confident as to be convincing. But its abstractness and its deliberate violation of the neighborhood's texture and human scale are the antithesis of Graves's approach, which tends to integrate elements reminiscent of older forms, assembling them in a way that retains their small-scale, textural, and contextual character under a classicizing ordering system that emphasizes entry and works with symmetries. Still, the Breuer building, in all its contrariness and deliberateness, is endearing—its askew windows, for example, are as quirky and personalized as any of Graves's inventions—and the marriage

of two distinctive personalities may well be brilliant, if tempestuous.

Finally, it is a most welcome event that Graves is given the opportunity to design a prominent building in an urban setting, to fulfill the promise of unusual artistic creativity suggested by his drawings, showrooms, and small realized projects. His Portland Public Services Building (P/A, May 1980, p. 25) will soon be complete, but its success may be limited by its very tight budget. The San Juan Capistrano Library (P/A, March 1981, p. 25) is scheduled for completion in 1983. Few other of his major projects are underway. Not only is the Whitney design of potential interest; it may well be of great significance, and the results are eagerly anticipated. [SD]

Eberhard heads ABBE

Washington, DC, architect John P. Eberhard, long a figure in architectural research circles, has joined the National Academy of Sciences as executive director of the newly formed Advisory Board on the Built Environment. ABBE is the successor organization to the Building Research Advisory Board and will concern itself with a wide range of issues arising from the scientific and engineering communities. "The focus will be on scientific and technical matters that are critical to the improvement of governmental policies and programs for the [News report continued on page 38]

The Guaranteed Coping Cover System

We guarantee our PERMASNAP COPING COVER SYSTEM against water leakage. Period. The secret is a styrene gutter chair at each joint that quietly carries water away.

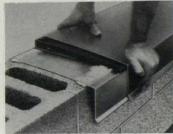
We also make sure the system stays in place. Without expensive wood nailers or imbedded anchor bolts. A special adhesive replaces them. And it sticks against 60 lbs. per square foot of uplift.

Permasnap Coping Covers are also simple to install. (It has to do with the "snap" in the name, but it's simpler if you see it for your-

self.) All in all, it's a pretty simple system. Only three parts. And we guarantee all of them. Specify Hick-

FREE "Root-Line" ...1-800-438-3897

See our catalog (7.3 Hi) in Sweet's.



Available in Canada

W. P. Hickman Company ☐ 175 Sweeten Creek Road P.O. Box 15005 ☐ Asheville, N.C. 28813 ☐ (704) 274-4000

PASSIVE SOLAR GREENHOUSE NEW



- □ New System 3 "Brookhaven" model for U.S. Dept. of Energy
- ☐ Curved eaves—Bronzetone finish □ Factory insulated glass
- ☐ Meets all building codes
- ☐ Custom built or standard sizes ☐ Totally PRE-FAB construction
- ☐ National dealer network



COLOR CATALOG and TAX CREDIT GUIDE: FREE-catalog and price list, plus our guide to the latest federal and state passive tax credits and qualifications

SAMPLE WINDOW KIT: Enclose \$5 for catalog and tax guide above, plus actual samples of greenhouse aluminum frame, G.E. Lexan® glazing, assembly manual and heating guide.



FOUR SEASONS **GREENHOUSES**

910 Route 110, Dept. PA-112 Farmingdale, N.Y. 11735 Phone: (516) 694-4400

Div. Four Seasons Solar Products, Corp. SEE US IN SWEET'S CATALOG

Laminated architectural glass. How it spruced up this old library is a case for the books.



The restoration of Chicago's 1880's-vintage library has earned the architectural firm of Holabird & Root a coveted 1979 AIA Design Honor Award for the extended use of a building.

The design challenge was to revitalize the structure to meet modern functional standards while preserving its historic appearance. For this project, the glazing specified was laminated architectural glass, reinforced with a Saflex® interlayer of polyvinyl butyral by Monsanto. It was selected for many convincing reasons.

Safety is enhanced because tough, resilient Saflex absorbs and dissipates an impact. The strong adhesion of the interlayer to glass prevents injuries from flying or falling fragments.

Laminated architectural glass with tinted Saflex was used to reduce glare and to control solar heat gain. And it was easily fabricated into special insulated units to provide temperature and humidity control for an area containing valuable rare books.

It was important that the glazing chosen could be cut to fit on site or in the shop because the library's antique iron window frames were irregular in size and shape. Laminated architectural glass is easily cut to size with simple tools, impractical or impossible with other glazings.

An added benefit is sound attenuation. Laminated glass reduced the din of traffic from nearby Michigan Avenue. And there are no maintenance problems. Laminated glass can be cleaned as easily as ordinary glass without scratching.

If your challenge is renovating one of America's great old landmarks—or building a new one—there are a lot of convincing reasons to use laminated glass. Let us tell you about them. For more information and a list of the leading manufacturers of laminated architectural glass, featuring the Saflex interlayer, write: Monsanto Plastics and Resins Company, Dept. 804, 800 North Lindbergh Blvd., St. Louis, MO 63166.

PLASTIC INTERLAYER BY Monsanto

built environment," said Eberhard, "which includes all of the facilities and community infrastructure that support human activities."

Members of the Board represent a balance and diversity of disciplines, including architecture, engineering, economics, finance, law, medicine, and the social sciences. ABBE is chaired by noted urban economist Philip Hammer, Hon. AIA, past president of the American Planning Association and retired founding partner of Hammer Siler George. ABBE will continue to maintain management responsibility for the government-wide Federal Construction Council, which is currently concerned with, among other matters, removal of asbestos from federal buildings. The Board's staff will support U.S. work for the International Council for Building Research (CIB), whose members are drawn from more than 50 nations. ABBE is also advising federal agencies on long-term research plans and has commenced a program on the use of computer graphics in building design and construction.

A veteran observer of Washington's on-again, off-again concern with the quality of the built environment, Eberhard sees these as particularly challenging times for the building research community. "The administration seems to be saying that it will back research and development for military systems,

leaving our civilian technologies—which are becoming outstripped by other nations—to the vagaries of the private sector." While the community that participates in building-related research may find itself cut off from some of the federal support it has enjoyed recently, Eberhard said, it is possible that the larger high-technology research organizations that have flourished over the past decade will find ways to expand their research and marketing efforts in ways that will aid the building community. [Thomas Vonier]

Lord Llewelyn-Davies: 1912–1981

Richard, Lord Llewelyn-Davies, city planner and architect with offices in London, Houston, Canada, Australia, the Middle East, and Hong Kong, died in late October in London.

Lord Llewelyn-Davies was best known for his new towns projects, especially his 1967 design of Milton Keynes north of London. In Milton Keynes, he attempted to overlay the diversity of traditional cities upon the serenity of utopian garden cities, an approach heralding the attitudes of today.

His 1957 design of Rushbrooke Village in Suffolk, England, introduced a Modernist aesthetic to the village-like garden city, while his unexecuted 1975 plan, for a new center of Teheran under the direction of architect Jaquelin Robertson, was dense and city-like, in-

spired in part by Rockefeller Center.

Llewelyn-Davies Week, his firm, specialized in the design of hospitals and research laboratories, and its work in America included the Atlantic Richfield Corporation research complex in Philadelphia, completed in 1977. Lord Llewelyn-Davies also designed the London Stock Exchange and the 1979 expansion of the Tate Gallery in London, the latter widely criticized for its bleak modernity.

He received his architectural degree from the Architectural Association in London, and from 1971–75 was head of the University College London's School for Environmental Studies (a name that reflected his philosophy of a rapprochement between architecture and the natural and social sciences).

Energy in design debated in Denver

In the aftermath of the first Arab oil embargo in 1973, it was widely proclaimed that energy shortages would produce major changes in the way Americans lived—and in the way architects designed. The American Institute of Architects' Design for Energy Conference, held in Denver Oct. 31 to Nov. 3, was called to consider what architects have done, or failed to do, about saving energy.

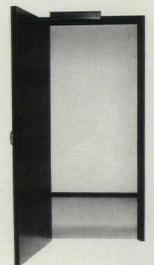
Although most of the conference consisted of architects showing slides of [News report continued on page 42]





Automatically closes doors for full time protection from fire and smoke











plus the convenience of a door that opens and remains open without spring pressure









New LCN Swing-Free Sentronic

The LCN Swing Free is a patented Closer Arm that works in conjunction with 4330 MED and ME Sentronic® closers. It complies with life safety codes requiring automatic closing to help protect patients from fire and smoke. The unique Swing Free arm can be disengaged from closer control allowing the door to swing open and close with no spring pressure from 0° to 90°. Makes it easier for patients, handicapped and staff to pass through the doorway, and lets the door stand open



any desired position.

Should the fire detection system go into alarm, the Swing Free Arm is automatically reengaged by the MED or ME Sentronic closer (see illustration), and automatically closes the door

for patients, handicapped and staff to pass from its hold open position. The swing free functioning the doorway, and lets the door stand open at

Send for FREE LCN brochure which describes problems of and solutions for barrier free openings.





LCN Closers, Princeton, Illinois 61356 LCN Closers of Canada, LTD., Mississauga, Ontario L5G 4L5



BUYANO

Literally.

It you're looking for the built-in flexibility a modular carpet tile system can bring your office, the last thing you want is carpet tile that has to be glued in place.

IF YOU CAN'T PICK IT UP. DON'T PUT IT DOWN.

Want to move a power source or replace worn or soiled tiles? Interface carpet tiles freelay on the floor and lift up easily. Glue-down tiles give you an argument. I heyre difficult to take up and, once removed, leave behind a messy residue.

All glue-down tiles lack dimensional stability and wont stand up to trequent take-up and put-down. leel them up and they stretch out of shape. Then fail to fit

back in place. Also, tile edges can fray and unravel from frequent handling.

WHY WE HAVE RIVALS, BUT NO EQUALS.

Interface®offers you a modular and tree-lay carpet system that goes down one 18" square at a time,



and without a general application of messy glue. Our patented fiber-

glass-reinforced GlasBac™ lets you free-lay tiles directly on the floor as opposed to glueing them in place. Dimensionally stable, the Interface system lies flat and secure with no curling, buckling or shifting. And stays there until you choose to make changes.

We've proven it with millions of free-lay yards in thousands of installations. No other carpet tile can make that statement But then no other carpet tile is made like Interface.

For more information about the carpet tile system that works with you, not against you, write Interface Flooring Systems,

■P.O. Box 1503. LaGrange, Georgia, 3024I or telephone

404/ 882-1891. FLOORING SYSTEMS

HIGH-RISE QUESTION:

What's the best way to cut construction costs in low-rental apartments?

LOW-COST ANSWER:

Reinforced concrete reduces building height and final costs—with no sacrifice in livability.



The designers of the twin 11-story South Port Towers in Elmira, N.Y. evaluated several framing methods in their search for the most economical construction method.

They decided on reinforced concrete for these apartments for the elderly. Any other material would have increased the floor-to-floor heights by up to 1 foot. And that would have resulted in an 11-foot height increase.

substantially increasing final costs.
Each reinforced concrete tower is 87 ft. x 85 ft. in plan view and rises 95 ft. above ground level. The connecting base is 125 ft. x 48 ft. The complex contains 208 apartments plus recreational and community rooms and clinic.

The framing system is 8-in. thick concrete bearing walls and 8-in. thick concrete one-way slabs. Costs were slashed during construction by the use of a large tower crane placed between the two towers. Easy access to construction materials was thus provided and the towers were built in alternate stages. For even more economy, metal ganged forms were used for bearing walls and floor slabs. One set of forms was re-used 44 times.

Interior walls were painted to further cut costs. And the pleasing "fractured granite" look of the outside end bearing walls and the fins of interior bearing walls was economically achieved with hard rubber-like liners inside the concrete forms

Reinforced concrete gave the city of Elmira the answer to attractive, functional low-rental housing. And there was never a question that concrete could do it all -economically.

Write for Bulletin 7904.

Architect: Haskell, Conner & Frost, Elmira, N.Y. Structural Engineer: Miller-Sizing, P.E., Syracuse, N.Y. General Contractor: Streeter Associates, Elmira, N.Y.
Owner: Elmira Housing Authority.

CONCRETE REINFORCING STEEL INSTITUTE CRSI 933 North Plum Grove Road, Room 215 Schaumburg, Illinois 60195



THE ANSWER'S IN REINFORCED CONCRETE

For information on Professional Membership Program, write to Director of

Circle No. 314 on Reader Service Card

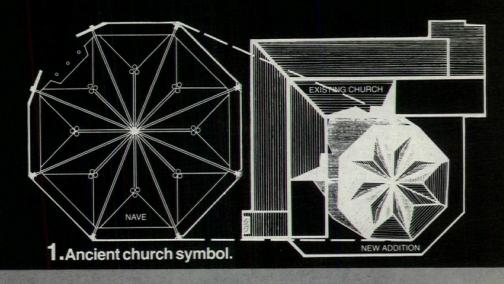
their work, its tone was hardly one of self-congratulation. AIA President R. Randall Vosbeck indicated in his keynote speech that the great age of energy-conscious architecture is still in the future. "Is a heat pump the best this profession can do in the name of energy-conscious design?" he asked the nearly 500 architects in attendance. In the eight years of fuel shortage, it appears that the great majority of architects have left the solution of energy problems to their mechanical engineers. Where energy concerns are reflected in design, Vosbeck continued, "ugliness is often foisted upon us in the name of energy consciousness," and he added that although architects are often not

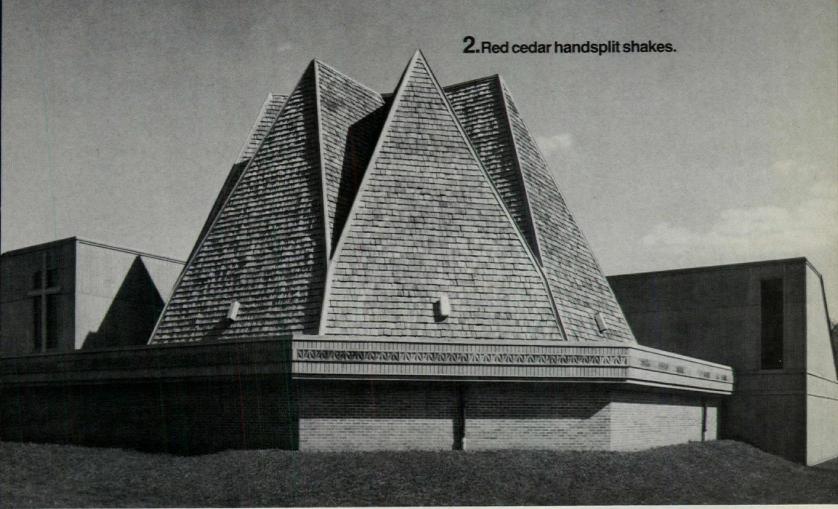
responsible for this, they could be doing better. Harrison Fraker, of Princeton, the

first of the architects to show his work, added a further caution. You cannot see whether a building works well as an energy-conserving design, he said. You cannot even feel it. "We cannot judge whether a building is a good energy building from direct experience," he said. "Mechanical systems mask how well the building actually performs.' Along with warning conference-goers not to be seduced by pretty slides, Fraker also dealt with the issue of why some famous energy-conserving buildings do not appear to be very good architecture. Architects begin their projects by drawing, he said, and it is very difficult to draw how energy is used in a building. When they do, he argued, they often let their energy diagrams dictate the form of the building. Instead, he said, they should use the knowledge they have gained studying the energy to help them resolve such traditional architectural issues as entrance, circulation, and image.

Many of the architects who spoke said they hope to see energy re-emerge as a form-giving element. The visual expression of buildings, which was long restricted almost entirely to the structural grid, has lately become arbitrary, they said. By introducing energy into the design process, they hoped to achieve a rational complexity in their buildings. "Glass is to be avoided," said Ben Weese of Chicago. "We should decide what a façade would be if we were trying to establish continuity with the past." Richard Stein of New York noted that Gothic cathedrals were invented in cloudy lands, to get as much light as possible inside. They never caught on in Italy, where the problem was controlling and tempering the light. "Taste is a very insubstantial basis for forming architectural decisions," Stein said. "Creating buildings that perform all their functions extremely well, including their energy performance, will provide the basis for beautiful buildings and groups of buildings, neighborhoods, cities, and regions.'

But Sam Davis, of Berkeley, noted that the well-known family of the Cali-[News report continued on page 44]





Sunnyland Christian Church, Peoria, Illinois Architects: Phillips/Anderson/Associates

Problem: How to design a 300-seat sanctuary addition and create a totally new look for the Sunnyland Christian Church.

"Our solution was the reviving of an ancient church shape and nesting it into the existing L-shaped building.

"We brought it to life with a radial foldedplate plywood form clad with cedar handsplit shakes.

"The shakes, combined with the roughsawn plywood, produced the naturally handsome and contemporary statement we were seeking."

—Forest A. Phillips

For our new color brochure "27 New Commercial Ideas in Cedar (and a few old ones)," write Suite 275, 515-116th Avenue N.E., Bellevue, WA. 98004. (In Canada: Suite 1500, 1055 West Hastings Street, Vancouver, B.C. V6E 2H1.





These labels under the bandstick of red cedar shingle and shake bundles are your guarantee of Bureau-graded quality. Insist on them.



Red Cedar Shingle & Handsplit Shake Bureau

Circle No. 343 on Reader Service Card



Customer Services Agent Tom Sineath is a Delta professional. He goes that extra mile for you.

Delta DASH (Delta Airlines Special Handling) serves over 80 cities in the U.S. plus San Juan, Montreal, Nassau, Bermuda, London and Frankfurt.

The airport-to-airport rate between any two of Delta's domestic cities is \$40 for packages up to 50 lbs., \$60 from 50 lbs. to 70 lbs. Between Dallas/Ft. Worth and Los Angeles, or San Diego or San Francisco, the rate is \$25 up to 50 lbs. and \$45 from 50 lbs. to 70 lbs. Expedited pick-up and delivery available at extra charge. Call (800) 638-7333, toll free. (In Baltimore, call 269-6393.)

For top priority shipments over 70 lbs., use Delta Air Express. It guarantees your shipment gets on the flight specified. For full details, call your Delta cargo office.



DELTA IS READY WHEN YOU ARE fornia state office buildings get their complex façades as a result of ideology as well as energy efficiency. "Skin buildings are not responsive or dynamic," he said. "They seemed inappropriate for urban design and for the social goals of the state." Instead, the buildings variously explore self-shading, fixed shading, varied fixed shading within a uniform space-frame exterior, and movable shading. Each of these results in highly complex façades with many small elements, which presumably make the bureaucracy a bit friendlier and less imposing than it might be.

Standing in stark contrast to the general bias of the conference against slick, reflective, "sun glasses" buildings was Helmut Jahn of Chicago. His presentation came under the heaviest criticism from the conference participants. He replied, in effect, that his designs are energy-efficient, even if they do not resemble what some think energy-efficient buildings should look like. He suggested that it might be a matter of taste, after

The final set of speakers explored the difference between saving energy within a project to save the client money and saving energy to benefit the society. The latter depends on patterns of development and political policy. Stein introduced statistics that show buildings in New York City to be considerably more energy-efficient than buildings throughout New York State. This suggests cities are an effective energy-saving invention. "We are so enamored of technology that we often forget about urban design and site planning," said John Belle of New York. "These may not have the razzle-dazzle, but they have tremendous everyday applications.'

George M. Crandall, of the Portland office of Skidmore, Owings & Merrill, discussed the regional conservation plan his firm produced for Portland. He said the great majority of the buildings that will be using energy in the next 20 years already exist, and architects can have a far greater effect in retrofitting than in designing new buildings. But he added that many of the basic issues, such as comprehensive planning and transportation, are beyond the scope of architects' commissions. He indicated that architects might have a greater effect as citizens on planning and design boards than they will through their practices.

During question periods, there was probably less concern with changing the world than with being able to charge high enough fees to carry out the kind of energy and design analysis the speakers were discussing. A couple of the speakers admitted to losing money on some of the projects they described. The thrust of the conference, however, was that energy concerns are not a frill, but an essential part of good design. Atriums, which were a major element in nearly all the buildings presented, not only assist in daylighting and the circulation of air and people, but they have also [News report continued on page 46]

without letting heat out.

Skylights formed from UVEX® Plastic Sheet can

reduce costs by reducing the need for artificial lighting during daylight hours.

While the optical transparency of UVEX Sheet lets light in, its low thermal conductivity keeps heating and cooling losses low.

UVEX Sheet has excellent impact strength and outstanding resistance to weathering. And in many instances, skylights formed from UVEX Sheet can be flashed directly into the roof—eliminating the need for aluminum curbing or support.

For information and the name of the skylight manufacturer nearest you, call or write Eastman Chemical Products, Inc., Plastics Products
Division, Kingsport,
Tennessee 37662

Eastman Chemical Products, Inc., a subsidiary of Eastman Kodak Company, Kingsport, Tennessee. UVEX is Eastman's trademark for its plastic sheet. Eastman makes only the plastic sheet used in finished products and therefore makes no warranties with respect to such products.



Plastic Sheet

rogressive Architecture 13.0.

Paneline™ from Kawneer.

A panic exit device doesn't have to get in the way of design. New Paneline from Kawneer blends into the lines of the entrance. It truly is a concealed exit device. Only the unlocking action tells you it's a panic device.

Paneline doesn't get in the way of people either. In any situation, it opens quickly when pressure is applied to any part of the push panel which protrudes only 1" from the door. And it is closely fitted around the perimeter so fingers or little hands can't get caught. (In the "dogged open" position, the panel actually looks more like a simple push plate.) The almost-flush design of Paneline makes the push panel difficult to jam by chaining or blocking but still provides added security because there's no crash bar for intruders to hook with wires. In addition, a wrap-around pull handle guards the lock cylinder on the outside.

The Paneline exit device is an ideal way to meet life safety codes and build in extra security without sacrificing style. It is available on Kawneer standard series 190, 350 and 500 entrances. And the optional matching panels for vestibule doors, and fixed rails for sidelights, and center lights, allow design continuity to be maintained throughout the entrance area.

If you're looking for a panic device that doesn't get in the way of your design, look no further. Kawneer Paneline makes it easy.

THE PANIC EXIT DEVICE THAT DOESN'T GET IN THE WAY.

PUSH

PUSH

PUSH

6 Kawneer Years

For more information, contact: Kawneer Product Information Department C 1105 North Front Street Niles, Michigan 49120

Circle No. 332 on Reader Service Card



been found to make buildings easier to rent. "I think it became clear that energy design is not an unknown art," conference chairman George Notter said afterwards. "It's not that you have to be an expert on energy. But you do have to think about energy and know something about energy to be a good architect." [Thomas Hine]

Thomas Hine is staff writer on architecture for The Philadelphia Inquirer.

Calendar

Exhibits

Through Dec. 12. "New Chicago Architecture." Gran Guardia Vecchio, Verona, Italy.

Through Dec. 13. Transformed

Houses. The Peale Museum, Baltimore. Subsequent dates: Jan. 2-March 21, New Jersey State Museum, Trenton, NJ; Apr. 10-May 9, Lehigh University Architecture Department, Bethlehem, Pa; Oct. 23-Nov. 21, UCLA School of Architecture and Urban Planning, Los Angeles.

Through Dec. 13. Landscape, Art and Architecture. Robert Cohanim Studio, 563 Laureal Ave., St. Paul, Mn.

Through Dec. 16. Late entries to the Chicago Tribune Tower Competition, Fort Worth Art Museum, Fort Worth,

Through Dec. 17. The Work of Mario Botta. Gallery at the Old Post Office, Dayton, Oh.

Through Dec. 18. Beach, Boulevard and Boardwalk: The Built Environment of Atlantic City, New Jersey. College of Architecture and Planning, Ball State University, Muncie, In.

Through Dec. 18. Architecture as Synthesis, Helmut Jahn. Gund Hall, 48 Ouincy St., Cambridge, Ma.

Through Dec. 18. The Best Laid Plans: New York's Altered Buildings. Surrogate's Court, Main Lobby, 31 Chambers St., New York.

Through Dec. 28. Jack Lenor Larson: 30 Years of Creative Textiles. Musée des Arts Decoratifs, Pavillon de Marsan, Palais du Louvre, Paris.

Through Dec. 31. The drawings of Andrea Palladio. San Antonio Museum of Art. Subsequent dates: Jan. 15-Feb. 28, Fogg Art Museum, Harvard University, Cambridge, Ma, March 15-Apr. 30, Brooks Memorial Art Gallery, Memphis, Tn.

Through Dec. 31. 18th–20th-Century British and European Architectural Drawings, Philippe Bonnafont Gallery, 478 Green St., San Francisco.

478 Green St., San Francisco. Through Jan. Work by Sir Edwin Landseer Lutyens. Hayward Gallery, London.

Through Jan. 14. Architectural Glass/ 1981. San Francisco AIA headquarters, Third floor, 790 Market St.

Through Jan. 24. "Suburbs" from early suburban prototypes to speculative plans for suburbs of the future. Guest curator: Robert A.M. Stern. Cooper-Hewitt Museum, 2 E. 91 St., New York. Through Feb. 1. "Architectures de Terre (Down to Earth)," Pompidou Centre, Paris.

Through Feb. 21. Manhattan Photos. Museum of the City of New York, Fifth Ave. at 103 St.

Dec. 9–Jan. 30. The Making of an Architect, 1881–1981: Columbia University in the City of New York. National Academy of Design, Fifth Ave. at 98 St., New York.

Dec. 21–Jan. 21. "Bridges" projects and drawings by Steven Holl, A.A.M. Architettura Arte Moderna, Rome.

Dec. 22–Feb. 7. Peter Bonnet Wight and the Gilded Age, Pennsylvania Academy of Fine Arts, Philadelphia.

Jan. 4-8. "Pattern Language in Swiss Vernacular Architecture" by Dan Woodfin. College of Architecture and Planning, exhibition area, first floor, Ball State University, Muncie, In.

Jan. 11–29. Current work: from the studio of Craig Hartman of Skidmore, Owings & Merrill. College of Architecture and Planning, exhibition area, first floor, Ball State University, Muncie, In.

Competitions

Jan. 26. Entry deadline, Second Annual International Conceptual Furniture Competition. Contact: International Conceptual Furniture Competition, Progressive Architecture, 600 Summer St., P.O. Box 1361, Stamford, Ct 06904.

Conferences

Jan. 22-24: "Designed Environments for All People." Organized by the National Center for a Barrier-free Environment, 1140 Connecticut Ave. NW, Washington, DC 20036. Sponsored by the AIA, ASID, IDSA, AIGA, ACSA, ASLA, and the Landscape Foundation.



The Board of Supervisors of Fairfax County, Virginia, is pleased to announce the commencement of the Fairfax Center Design Competition—a two-stage competition for the design of its new governmental and civic complex.

Stage One is open to any firm or team licensed to practice architecture in the United States with a record of gross receipts for professional services of at least \$100,000 per annum during each of the last three years. In the case of teams, the lead firm must fulfill these requirements. At the conclusion of this stage, four finalists will be selected to compete in Stage Two.

In Stage Two, each finalist will receive \$25,000 to develop a preliminary design. An independent design review board will evaluate the submissions and provide the Fairfax County Board of Supervisors with a formal report. The Board of Supervisors will then award the commission for the project at its discretion.

Among the design goals for this project are creative approaches to resource management and housing local government in a manner that is open to and accessible by the public that it serves.

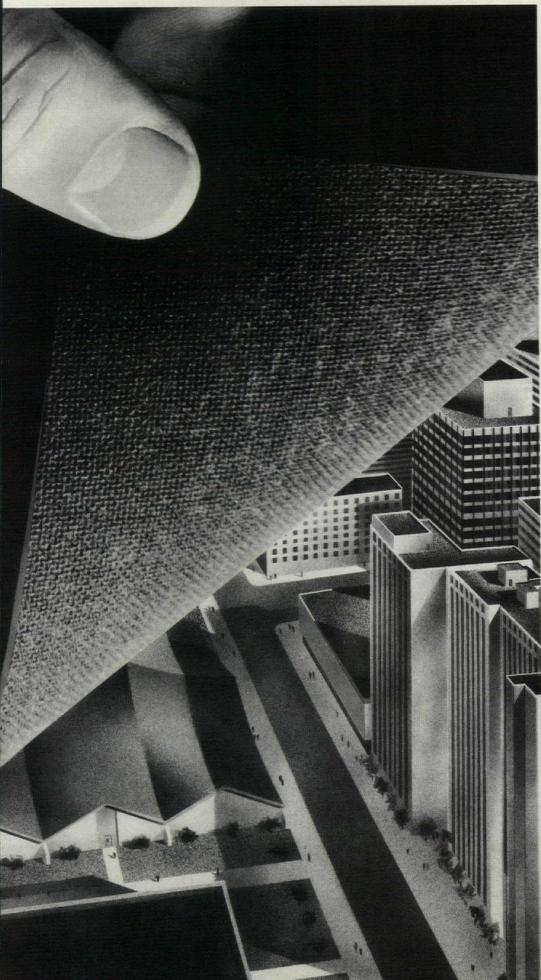
The design review board is composed of five members, comprising three architects, an engineer from the field of energy conservation, and a professional in local government administration:

Chloethiel Woodward Smith, F.A.I.A. Jacquelin Robertson, F.A.I.A. Barry Wasserman, F.A.I.A. Fred Dubin, P.E. Wayne F. Anderson

Any interested firm meeting the above criteria is invited to request additional information and materials. The deadline for the receipt of Stage One qualifications is 25 January 1982. Please write to:

Professional Advisor Fairfax Center Design Competition The Cooper-Lecky Partnership 3203 Grace Street, N.W. Washington, D.C. 20007

Roof for roof, synthetic rubber sheeting is today's solid investment.



Single-ply synthetic rubber membrane roofing is only about 1/32" to 1/16" thick. But it packs all the long-term protective power and service life a heavy, labor-intensive conventional roof can deliver.

Experienced crews readily seam sheets to keep out water —and to conform to structural configurations and properly prepared substrates. The sheets handle easily and can be installed in marginal weather. And the potential hazards of on-site hot molten material and application are eliminated.

Compared with conventional roofs, tough synthetic rubber roofing systems stay flexible in extreme cold and don't turn soft or sticky in extreme heat. Because they are rubber, they stretch and return to shape. In fact, synthetic rubber roofing systems have withstood the test of time and weathering for over 20 years. And they are easy and inexpensive to maintain.

Roofing systems of synthetic rubber sheeting are made using Du Pont Neoprene, HYPALON,* and NORDEL* EPDM elastomers. Send for a free brochure. Learn why the special properties of Du Pont elastomers make rubber roofing sheeting a solid investment in building protection. Write Du Pont Company, Room 38732B, Wilmington, DE 19898.

*Reg. U.S. Pat. & TM Off.



TAMKO INTERPRETATION OF THE PROPERTY OF THE PR

Plasticized Asphalt Roll-Roofing For virtually every built-up roofing situation or problem.

Expansion Joint Covers

Readily accommodates expansion/contraction of the roofing system.

Field Roofing

Labor-saving single- or double-ply installation using hot asphalt or heat welding equipment

Re-Roofing Without Tear-Off

The AWAPLAN system can usually be applied directly over the existing roof.

Flashing

Tremendous strength and elasticity. Ideal for stress-prone flashing areas.

Roof Split Repairs

One-man heat welding operation without need for hot asphalt.

Walkways and

Irregular or Sloping Roof Structures

AWAPLAN is easily conformed to unusual building features, slopes, and projections.

Machinery Pads

Protects against damage from maintenance traffic. dropped tools, and other hazards.

Live Load Re-Roofing **Problems**

The AWAPLAN system is lightweight. Smooth granule surface even permits snow removal.

Compatible with All Conventional Asphalt Roofing Systems

TAMKO AWAPLAN may be applied in combination with conventional materials - as a problem-solver for flashings and walkways, or as a total field roofing system.

Call or write for your free brochure. Or consult Sweet's Catalog File: 7.1/TAM. 1-800-641-4691 (In Missouri: 417-624-6644).



Hot Asphalt



Heat Welding



Roof Edging



Wall Flashing

Asphalt Products, Inc. Home Office: PO Box 1404, Joplin, Missouri 64801

THE ULTIMATE SURFACE CLOSER

-For Very Good Measure

A product for the times; to remain in reliable service longer, with less attention, than any of the many surface closers of the past. The new Rixson "Heritage:"

- Life Cycle Economy Stronger than any surface closer ever offered. Exclusive one-piece cast iron body, cold-rolled steel arm, heavy-welded steel cover. Exceptional hydraulic capacity, oversized piston, brass needle valves.
- Control Capability—Superior reliability, unique dual backcheck control; independent, fully adjustable latch and stroke. On-site power conversion adapts two basic models to almost any application.
- Architectural Preference—Aesthetically proportioned, unique straight arm, beautifully accepts all plated or painted finishes.
- American made to meet American requirements, and backed by a nationwide service organization.

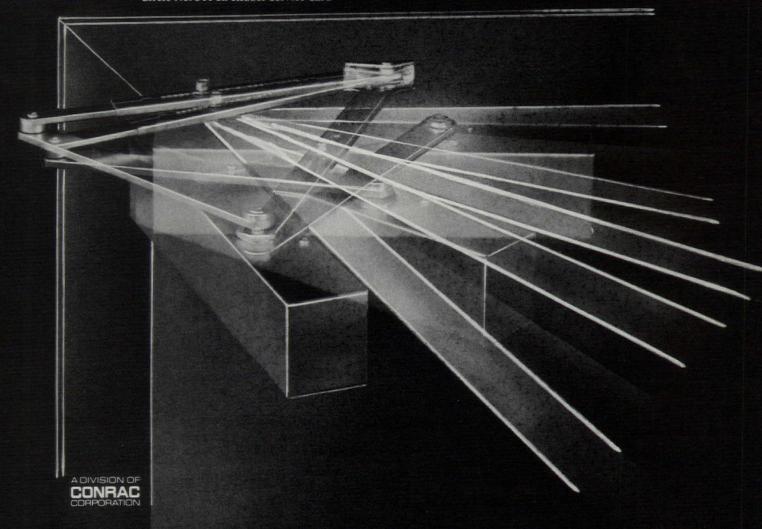
Nothing less than the Rixson "Heritage" could fully meet the needs of today's architects and building owners.*

*Request: "To Close A Door," a comprehensive text on various door control methods.

RIXSON-FIREMARK

9100 West Belmont Avenue Franklin Park, Illinois 60131 and Rexdale, Ontario— 312/671-5670

Circle No. 344 on Reader Service Card



See how the new Litton Office System makes open planning easy

It's easy to specify

The broad range of available sizes—panel heights from 34" to 84" and panel widths from 12" to 60"—gives you the selection flexibility necessary to handle space planning demands without compromise. Yet, the simplicity of the system means you can have this wide selection without the usual complicated assortment of parts to support it.

It's easy to trust

Steel-sandwich panel construction over a honeycomb core makes other systems seem fragile. And every component is fabricated in a highly-automated facility to make this the system you can trust today and count on to last tomorrow after tomorrow.



Stirling in another context

Peter Papademetriou

Remodeling and extension of Rice's architecture school by James Stirling, Michael Wilford & Associates, with Ambrose & McEnany, fits into the campus plan and eclectic style established early in this century by Cram, Goodhue & Ferguson. Following this article is a critique by David Gebhard.

New wing and courtyard are glimpsed through arcade from the 1940s (far right).

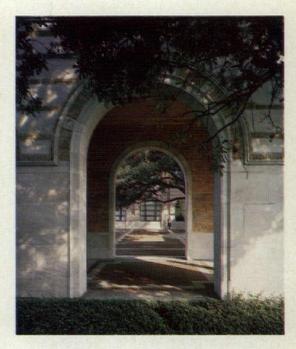
Peter C. Papademetriou, P/A's Houston-based correspondent, is a practicing architect and associate professor of architecture at Rice.

It used to be an old saw that architects should seek an expressive vernacular by looking at the "backs" of buildings. Rarely, however, did they actually set out to design one. Yet the first building in the United States by the London-based firm of James Stirling, Michael Wilford & Associates, new facilities for the Rice University School of Architecture, is essentially just that.

Stirling's receipt of the 1980 Royal Gold Medal of the RIBA and the 1981 Pritzker Prize in Architecture caused a heightened interest such as unfairly awaits any first-born of distinguished parentage. Its focus on what is a very modest commission is largely a consequence of timing, and with such interest, premature expectations are inevitably met with an uneasy awareness that the anticipated product is simply quite homely. Such was the nature of the situation, and it is because of the courage of their convictions that Stirling and Wilford's design must be accorded the significance of modesty. Here in Houston, the specific context was met by a sober, sensitive response, which took the brave and limiting stance of being appropriate to the task at

For over 70 years, the individual building programs on the Rice University campus have had two strong and constant references. With greater and lesser successes, but always consciously, the two central elements are the principles of the General Plan of 1910 and the architectural style developed in the first buildings. Both of these were largely conceptualized and given form by Ralph Adams Cram. As a part of Houston, the Rice campus has therefore remained an anomaly: an ordered and coherently developed sequence of well-detailed buildings in a perceptible environment.

The basic parti of the campus plan was a series of courts defining major program areas, linked together by building blocks aligned parallel to the principal east-west axis, and tied laterally in a north-south direction by axes connecting the secondary activity courts. The heart of the plan was the Academic Court, with its administration building prominently the exception in its orientation. This building closed one end of the space, astride an axis from the main campus entrance at the northeast corner of the 233-acre site, which continues through the composition as its principal axis. Symmetry was played off with asymmetrical balance to facilitate development over time. (Plan overleaf.)



Cram also sought an architectural elaboration into a stylistic vocabulary appropriate to place and purpose, as he stated in Pencil Points 20 years later, "... the dominating idea was that this was an institution of higher learning and that it must look like a college, and one built in a warm climate." Eclecticism was for Cram a means to articulate programmatic, institutional, and cultural particularities free from the then-dominant single style of Neoclassical architecture.

The "Rice Style" was Mediterranean in source and Southern in execution, considering orientation, prevailing breezes in program organization, and the use of cloister arcades. Brick masses reminiscent of northern Italy rose from a base story of cloisonné masonry and were characterized by horizontal banding; verticality accentuated the planar wall as a series of rhythmic buttresses. Surmounting the composition were tile roofs, generally in hipped form, occasionally suppressed by an articulated parapet or with a flat gable where separate wings were clearly to be seen as appendages to a main block. Although a program of ornament was evident in all the early campus buildings, Cram's emphasis on planar composition suggested a superiority of massing over decoration.

The Academic Court had been defined during Rice's initial spate of construction by the Cram-designed Administration Building (Lovett Hall) of 1912 and its flanking wing housing the physics department (1914). Significant building activity was postponed by the Depression and World War II; it was in the middle to late 1940s that new works were added to the campus. In 1947, the southwest corner of the court was added to by the firm of Staub & Rather with a general classroom building designated M.D. Anderson Hall. This was then linked by an arcade to the Fondren Library of 1949 by the same firm. Not only did the library block the principal axis of the General Plan, but along with Anderson Hall it signaled the impact of Modernism. In 1944 a "cooperative committee" of university libraries and their architects was formed to deal with new building programs. Headed by John E. Burchard of MIT, this committee not only recommended placement of Fondren Library across the main axis, it also warned against "warping the functioning of the plan" in favor of a symmetrical elevation and specifically disparaged any attempt at continuing the style of the earlier buildings. The result was Fondren's schizophrenic asymmetry in a "modernized" version of Cram's vocabulary.

Anderson Hall preceded Fondren, but was also conditioned by this virtual conflict of interests. In basic form it is an ordered block capped by the symmetry of a hipped roof form. Closer examination, however, reveals that the pattern of window openings of the south (quadrangle) elevation does not align in plan with that of the north elevation. This subtlety is a symptom of a major interior "programmatic" response. As Anderson Hall was a general classroom building, its plan was organized for two types, one small grouping along the north side, the larger rooms facing the quadrangle. This "functional" arrangement, which introduced a series of offset articulated "entries" to each room (see original building plan, p. 56) was tied into an asymmetrical structural frame, hence the difference in window patterns. The visual treatment of the exterior, in comparison to Fondren Library, was a timid but fortunate restatement of the existing Cram buildings.

Completion of the quadrangle space was realized by the 1961 Rayzor Hall (Staub, Rather & Howze), flanking Fondren directly across from Anderson Hall and rendered in a similar neutral style, and the 1971 Cleveland Sewall Hall, the flanking wing to the south side of Cram's original Lovett Hall, for which architects Lloyd Morgan & Jones carefully replicated the façade of Cram's physics building, as the donor specified.

ISOMETRIC FROM SOUTHWEST RICE CAMPUS: CENTER QUADRANGLE

Anderson Hall was gradually taken over by the School of Architecture at that time, although several studio classes and support functions were located in a portion of Fondren Library. Accreditation visits of the NAAB cited the increasingly crowded conditions, particularly as the graduate program grew in size and diversity. The existing interior geometry introduced a social and functional division, as studio space was opened up through the removal of old classroom walls, but obstructed spatially by the offset column grid and the off-center air distribution plenum above the original corridor. A related problem was the patent inadequacy of air conditioning for the building. Finally, the original purpose of Anderson Hall as a collection of general classrooms yielded a building without a focus internally, so that the School lacked a physical "heart."

In September 1978, shortly after becoming Dean of the School of Architecture, Jack New wing (shaded in isometric and in site plan above) is sited away from Academic Quadrangle. Exterior of original 1947 building is left virtually intact; windows facing new courtyard were not altered to "bottle" shape shown on isometric. Massing as two parallel blocks, linked, repeats parti of older buildings flanking quadrangle. Quadrangle is closed at east by arch-pierced Administration building—first campus building, 1912—and to west by Fondren Library, 1949.





Gabled west end of new wing (top) shows some changes from isometric (top opposite); Cram chemistry building is at far left. East end of addition (above) includes short repeat (at right) of

original window pattern (at left) plus visibly new glass-capped projection for jury room.

School of Architecture, Rice University

Mitchell wrote President Norman Hackerman of a "critical space shortage," concluding that there was no way to remodel Anderson Hall to accommodate these needs, and an addition was soon decided upon. In January 1979, an existing commitment for \$500,000 secured by the School's previous director, Anderson Todd, following an earlier space needs analysis, was supplemented to \$700,000; at the same time, authorization was given to raise an additional sum for a total of approximately \$1.4 million.

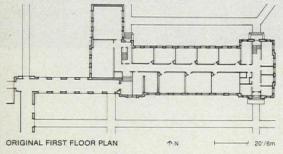
The faculty was committed to two points, the first of which was to remain a part of the central campus, to function as a literal link between the humanities and science sides. This commitment carried with it a philosophical stance that creative adaptive reuse and conservation by means of an efficient addition and reintegration of facilities, rather than an independent building, was more in the spirit of the times. The second issue was to seek an architect of international significance, whose sympathies would assure this direction. After much discussion, the firm of Stirling and Wilford was recommended at the end of March 1979.

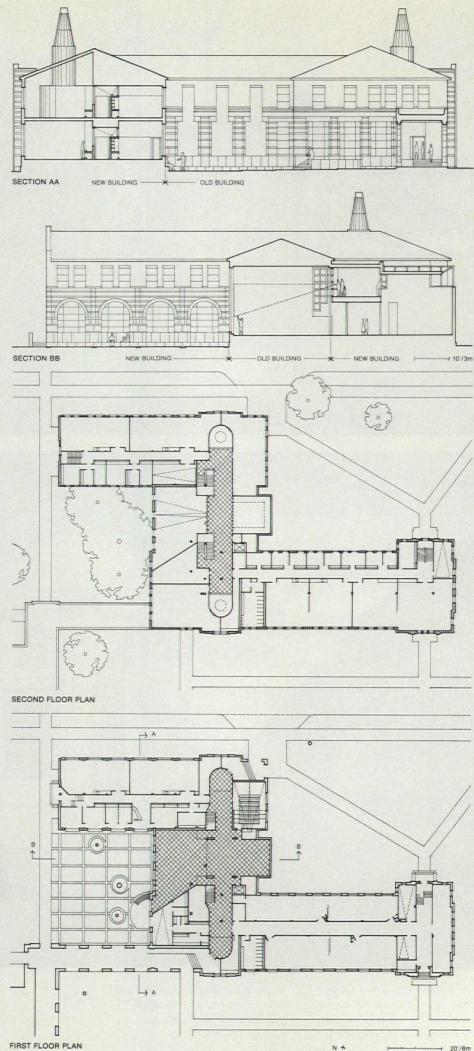
A building committee of the School, chaired by Professor William Cannady, drafted an initial program analysis. The program, consisting only of several pages of space needs and sizes, described an approach comprising a "modular studio" concept (discrete rooms for studio, but planned for combination) and an approximately 50 percent addition to the existing building. By the end of May, the program schedule and contract fee were locked together, as was association between the London firm and the local firm of Ambrose & McEnany, the former doing design development and the associate architects having total responsibility for contract documents; the main contractor and principal subcontractors were also lined up when initial schematics were reviewed in early July

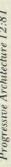
The first scheme, presented that fall, represented a clear commitment to a building



Construction view of Anderson Hall, 1947.

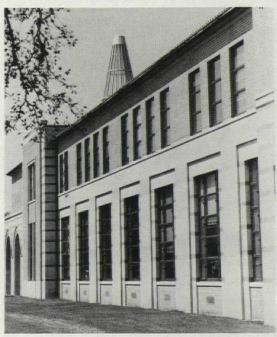
















whose visual character indeed continued the vocabulary set by Cram and subsequently interpreted; it also sought to introduce variation and to elaborate themes from this. Most significant, however, was the move to design a second wing similar to the existing building and to conceive of a lateral link as the heart of the new school. This link is in part a replication of existing episodes, such as the resalit (two-story projecting bay) identical to the renovated risalit on the quadrangle side. It also appears as a core inserted between two buildings, its new jury room poking between them and its entries marked by vertical terminations in high-tech lanterns loosely alluding to the tabernacles of the Cram buildings. Most significantly, the disposition of the main block parallel to the existing building on the east-west axis both continued the spirit of the General Plan of 1910 and provided an inti-

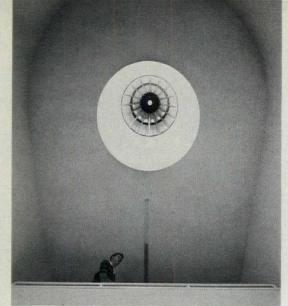


mate garden space, complementing the adjacent arcade to Fondren and placed at the intersection of two major pedestrian routes. With this, the design achieved an extension of the purposes of the School to contact with the larger University community. Faculty response adjusted the absolute clarity of the parti diagrams by calling for a double group of studios on either side of the central corridor of the old wing; this also modified certain preliminary design moves and represented a regrouping of space allocation to bring the total more in line with budget.

By March 1980, a new refinement had been advanced, essentially the building as ultimately built. The associate architects had



Arched openings of adjoining arcade and neighboring chemistry building (top left) are recalled in typical Stirling elevation (top right). Rectangular window pattern of original Anderson Hall is seen on south front (far left) and on old side of new courtyard (above middle); arch motif is maintained on new north façade (just above). On interior, the arch comes full circle in openings between corridor and studios (left, upper) and between offices in administration area (left, lower).

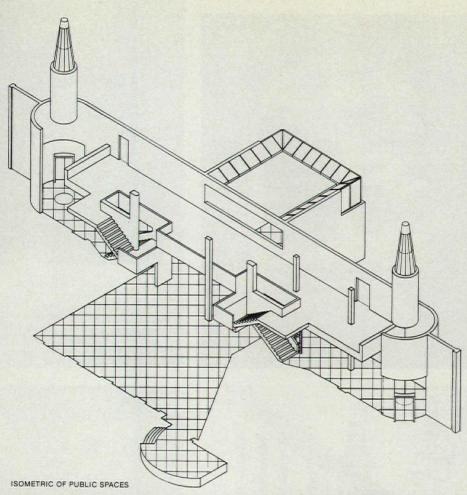


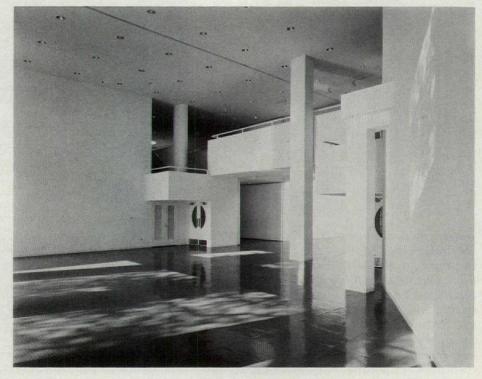
made recommendations for mechanical systems to provide necessary environmental controls, and other aspects of construction were predetermined by the major contractors who would stand by their prices to the University. (Stirling and Wilford had not, in fact, been involved with fully air-conditioned buildings before.) During design development, there was constant monitoring of costs by School and University officials; design decisions were balanced by adjustments to keep the costs within budget. Because of the onagain-off-again commitment during the fund-raising period through early 1980, design continued into the process of construction, which began in April 1980, and just as construction began, Russ Pittman, the campus business manager who had overseen the project through to that point, retired.

In contrast to the East Coast projects, the Houston job represented a completely different scenario in terms of workmanship, technique, and speed of construction. The contrast is even more dramatic in comparison with the Stirling firm's experiences in Germany. Compounding this were the division of labor, the distance to London, and shifting client positions.

The work was constructed essentially in one year; final student reviews were held in it at the end of Spring Semester 1981, although the facility was not occupied until the summer, and dedicated at the end of September 1981. Fine-tuning and redressing problems that resulted from budget-related decisions have been undertaken subsequently. Among these was noise resultant from the recommended room air-conditioning units, compounded by a later decision to leave these exposed when acoustical ceiling tiles were pulled out of the job as an economy move by University officials; retrofit acoustical treatment has now been discreetly incorporated.

The users, however, have looked beyond problems to the larger issues. The School is an integral part of the campus and complements its physical structure while adding a significant and human-scaled social space. As a pass-through building for campus circulation, it now openly draws outside pedestrians through its public space; the Farish Gallery, for instance, constantly has people in it.





Sorely needed work spaces have been achieved, and crowding has been alleviated. As a School for four-year undergraduates, as well as a range of graduate students, the design concept achieved a "heart" in its main public spine which provides the social identity internally; the two-story gallery is a place for pausing and casual interaction. In summary, even the trade-offs inherent in any process work successfully in a way that the monuments of the 1960s and 1970s did not; this is because the concept was responsive at a variety of scales and can only be understood, as it was intended to be, in context. \square

Circulation-exhibition-jury core has conical skylights—lanterns at night—at entry ends. Corridor bridge and stair landings (top, opposite) overlook jury and exhibit spaces (near and far right). Remnants of original structure and fenestration are seen in exhibit hall, as are outlines of proposed "bottle" windows.







School of Architecture, Rice University

C military C military







(Above, from top): Administration Building, 1912; Library, 1949; two views of Memorial Center, 1958. (Below) Physics Building, 1914.

David Gebhard is Professor of Architectural History and Curator of the architectural drawing collection, University of California at Santa Barbara. He is currently president of the Society of Architectural Historians.

Critique

David Gebhard

James Stirling, Michael Wilford & Associates' recently completed addition to Anderson Hall at Rice University in Houston provides a number of clues which explain not only what this firm is about these days, but where we seem to be headed in our current involvement with historic contextualism. Stirling's commission at Rice is resplendent in its array of complex, intertwined issues: a near perfect (or depending on one's point of view not so fortunate) series of problems where the architect's view of contextualism was put to a strong test.

The Rice Project was not a new building, but rather an extensive remodeling of an existing structure, coupled with a modest addition. The building upon which Stirling performed his act was a half-hearted version of historicism—so characteristic of American collegiate architecture in the years immediately after World War II. The architects were asked to provide this revamping within a tight, limited budget, and within Houston's building technology, which at its best can be described as casual.

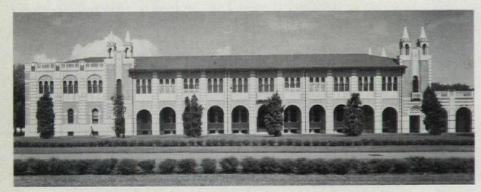
There was in addition another overlay of considerations—the architectural faculty was. at least in part, the client (whether in fact or so perceived); and though Stirling himself knew the Rice campus, and his partner Michael Wilford had been even more closely involved with the place, still this was an English firm operating for the first time, not only in America, but of all places, Texas and Houston. A final note was that as current superstar, the Stirling firm realized that all eves were upon them in this project, as well as in their concurrent projects for the Fogg at Harvard (P/A, June 1981, p. 25) and for Columbia University. No matter how modest the Rice project was, the demand upon the firm was to produce a "significant" design. Did they succeed in doing this? Will their Rice building pose as another of their major monuments?

To answer this question we should first look into the contextual aspects of the project, and then examine Stirling's solution. In 1909, before pen had been placed on paper, Ralph Adams Cram sketched in words his view of the imagery which would be employed for the design of buildings on the new Rice campus: "Round arched style based on the Southern

development during the 11th and 12th Centuries, of the architecture of the Byzantine and Carolingian epochs. It will bear some resemblance to the early medieval work of Italy, South France, and Northern Spain together with lines borrowed from the East, and also from the Spanish missions of the neighborhood."

This dictum governed all the work that Cram and his associates built on the campus from 1911 through the 1930s. Cram's series of variations on this rich smorgasbord of sources fulfilled another of his often repeated ideas, that historicism must be continuously reinterpreted so as to provide "...a modern quality that will mark it as distinctly American. . . . " As Modern converts, those who received architectural commissions at Rice after 1945 looked with either guilt or disdain upon Cram's ideology. The new surge of buildings erected on the campus in the late 1940s and 1950s played a variety of games between the newly enshrined Modern and traditional historicism. Fondren Library (Staub and Rather, 1949) was a not unsuccessful late version of PWA Modernized Byzantium. The Bonner Nuclear Laboratories (George Pierce-Abel B. Pierce, 1952) suggested that past and the present could be united through the 1940s imagery of Saarinen and Saarinen; while the more "current" modern of Hamman Hall (Pierce-Pierce, 1958) provided a slight nod to Rice's traditionalism via banded brick walls, glazed tile and polished black marble. Of all the post-World War II buildings at Rice, the Memorial Center (Harvin C. Moore, 1958) most fully explored contextualism-in its chapel with strangely hung columns placed around the exterior of the apse, its intimately scaled porticos and patios, and its Byzantine/Romanesque balcony precariously suspended from the second floor of its Modern style box.

During the 1960s, minor acts of contextualism continued, but this theme as a major consideration did not re-enter the scene until 1971 in Sewall Hall (Lloyd, Morgan & Jones). In this building the architects went ahead and simply duplicated the façade of the 1914 Physics Building across the quadrangle, and in the rear they provided an abstraction of Cram's Byzantine/Romanesque theme. Nine years later the Stirling firm was selected to revamp Anderson Hall (Staub & Rather, 1949), the building occupied by the School of Architecture. From their initial scheme on, they viewed the exterior and the interior as two separate, distinct projects—so independent, in fact, that the twain meet in only a few small-scaled episodes. Concerns for context dominate their approach to the exterior, while in the interior they seemed to have been entirely concerned with the symbolic images of function, countered by abstract notions of connective public spaces.

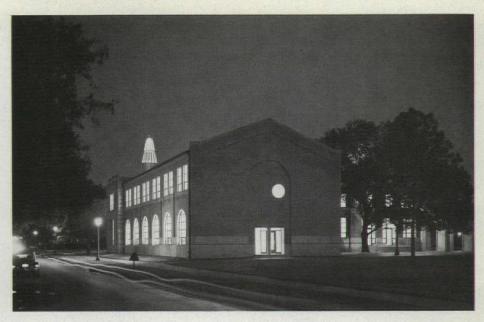


As with other contemporary contextualists, the Stirling firm implies that the imagery of the past can best be made modern by returning to the reductionist geometry which dominated the Classical tradition at the end of the 18th and the beginning of the 19th Century: Classical reductionism/distortionism would provide a readable language which had the potential of carrying the past into the present, and the present into the past. Cram's original version of Byzantine/Romanesque had after all approached the design of buildings at Rice in somewhat the same manner. So Stirling's task was to carry this system of reductionism/distortionism on into the 1980s.

Adherence to contextualism generally produces two distinct products-highly assertive buildings where the past is made more vivid for the present, and then those buildings which are backdrops within the scene. Anderson Hall was of the latter persuasion—it is a building which does not dramatically disturb the unity of the campus; nor does it add much to it. It is the sort of building we would all walk by without giving it a second glance. Stirling's reaction to Anderson Hall was, first, to gingerly maneuver it from neutralism to a positive assertion of historicism; and then to provide the few clues to indicate that it was a Stirling product. With the exception of a few changes in the fenestration of the west façade of the original building, Stirling left the exterior pretty well as is. With the one exception of the gabled west façade, the massing and elevations of his new addition-the Brochstein Wing-follow the original so closely that only those in the know would be aware that it was new. If we look closely there are wonderfully inventive subtleties—such as the rows of slightly projecting pavilions with arched openings on the new north and south facades.

The building's strongest contextual statement occurs in the gabled west end. Here Stirling inserted a tall recessed arch into the surface, and he has suggested a corbel table by a projecting false cornice. The abstract classicism of this elevation is made apparent by a Stirling-esque trademark-a large, offcenter circular window, and a single shaft column placed "incorrectly" in the center of the entrance. In addition to this column and the round window, the architect has injected three other trademarks which we customarily associate with his work: an awkwardly placed skylighted and clerestory-lighted box which protrudes off of the building's east façade; angled and curved entrances into the building; and two metal towers which pose as rocketships emerging from the roof.

In the interior we are plunged back into the evangelistic Modern world of the 1950s, when one addressed the question of contextualism by denying its existence. Stirling's public concourse, the adjacent gallery and jury room, the passageway, studios, and offices represent a calm, reposed phase of current Modernism. There is none of Stirling's earlier agitated aggressiveness which characterizes his work of the late 1950s and 1960s. If we were to remove his favorite Captain Nemo porthole windows and a few other minor telltale features, it would be difficult to



know who might have designed the interior. It is anonymous Modern of the 1980s, carried out inexpensively, but with sophistication.

Does Stirling's performance at Rice constitute a significant contribution to contextualism in the 1980s, and does it represent a major addition to this architect's distinguished series of buildings? If context is to be considered as a governing factor in this design, then a reasonable criticism could be leveled at Stirling's decision to treat the interior and exterior as two separate worlds. There is no reason why in plan and even in details, a reference could not have been made to the Byzantine/Romanesque imagery which occurs externally. If contextualism has substance, it should, one suspects, go beyond the external shell. In looking at the post-1945 scene at Rice, several buildings, particularly the 1958 chapel/courtyard/tower wing of the Memorial Center, represent a more convincing response to contextualism (at least as far as a nonprofessional audience is concerned) than that of Stirling's Brochstein Wing.

It must, in fairness, be admitted that Stirling's building would have been appreciably stronger if what is revealed in the drawings were fully carried out. As is often the case in architecture, the architect's intent, and in this case his involvement with the issue of contextualism, is most clearly seen in his drawings rather than in the realized buildings. If we judge the design exclusively through the medium of drawings, then Stirling's building at Rice marks an advance in contextualism from his 1971 Art Center at St. Andrews University. At least externally his easy-going contextualism at Rice seems more American in its historical overtones than his current projects now being designed for Harvard and Columbia. If we go beyond the question of contextualism, his design at Rice evokes a somewhat uneasy reaction. Before forming a judgment we should perhaps wait and see what occurs in Cambridge and New York.

Night view of architecture school

Data

Project: addition and renovation. School of Architecture, Rice University, Houston, Tx. Architects: James Stirling, Michael Wilford & Associates, London (Alexis Pontvik, Paul Keogh, assistants); in association with Ambrose & McEnany, Houston.

Program: remodel an existing 28,990-sq-ft building and extend for total of 45,438 sqft; to include studios, classrooms, offices, jury and exhibition spaces. Site: between main campus quadrangle and service road; limited by existing paths and

Structural system: steel frame with bar joists.

Major materials: face brick and limestone exterior over sheathing and metal studs; clay tile roof; aluminum windows and skylights, clear glass; gypsum board interior walls; rubber flooring, vinyl tile, or carpet over concrete on metal deck (see Building materials, p. 122).

Mechanical systems: air-handling and fan coil units supplied with hot and chilled water from campus system.

Consultants: Walter P. Moore & Associates, structural; Cook & Holle, mechanical; Southwest Specification Service, specifications; Joseph Chapman, gallery security.

General contractor: Miner-Dederick Construction Corp. Costs: \$2,675,265 (actual, 1981, not including fees or furnishings).

Photography: Paul Hester, except as noted.



Mies in Wonderland

In Ronald Krueck's and Keith Olsen's first work on their own, the elegant vocabulary is inherited from Mies but sensuously elaborated and subverted. In a city where deviations from Mies's precedent were regarded until recently with suspicion, if not downright scorn, this house by Krueck & Olsen is an anomaly. It is both closer to and further from the Master than most of what has gone before. "This is like our graduate thesis," admits Krueck. Both architects studied at IIT and then worked for Chicago firms. Less typically, Krueck has spent much of his time in the company of artists, not architects. He likens the house to taking Mies's pure, "simple sentences" and using the vocabulary to "make complex sentences and paragraphs."

Part of the complexity has to do with a sensibility that is not only indulgently sensuous, but almost obsessively attenuated, each possible distinction and elaboration carefully enunciated. But in the main the difference has as much to do with intent as sensibility. Mies's architecture is almost a study in progressive abstraction. Indications of specificity—mass, shape, hierarchy, direction—are extracted. As each expression seemed perfected, it was included in subsequent

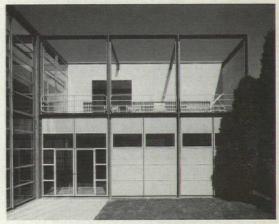
designs almost without alteration.

If Mies's philosophy recalls Plato and Aquinas, the young Chicagoans put one in mind of Wittgenstein. Mies's idea has to do with representing essence without getting entangled in all the little facts. Krueck & Olsen have fabricated a kind of black stage in which to experience—even inventory—those facts, but as possibilities, not truth. In that sense, the house is no more specific than Mrs. Farnsworth's, but it shares its insight into the illusion of appearances not by removing ephemera, but by undermining each individual appearance with its alternatives.

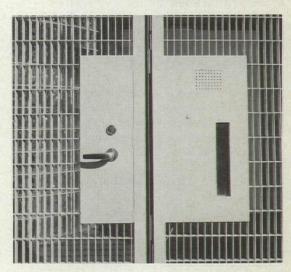
At the core of this is the handling of geometry. Planes do not stand still or politely disappear as with Mies. They wobble, slide, overlap, and alternately slice into space and snap back to flat frontality. The simple U-shaped plan turns out, on closer inspection, to be three rectangular plans shoved up against each other; on still closer inspection, rather different boundary lines appear; and closer yet, it reveals itself a virtual colloid suspension of ambiguity.

To begin with, the façade

The circular drive, privacy wall, and the façade's very nature as a plane (a condition for which the architects went to some trouble, veiling the glass-block stair with subway grating) indicate one object. However, the one-



din/Karant Photog



way steel frames change direction part way across, making a "corner" as if there were two buildings abutting. At this same "corner," the skylight follows the elevation down (front and back). Clear by day and lit by a continuous billboard tube at night, the "reveal" separates the long back of the U from its two short legs as if, in Krueck's words, a Star Wars magic wand of light had severed the house into three parts. What it also does, of course, as do the bands in the paintings of Barnett Newman, is loosen the two parts of the façade from each other to slide back and forth. It has been suggested that Newman's bands are really the picture frame moving to center stage, its architectural translation being thereby quite literal.

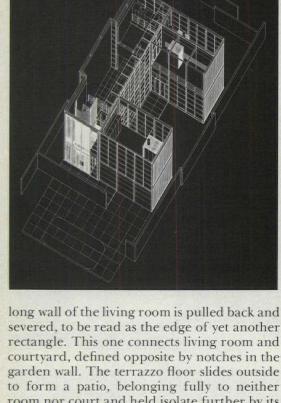
Inside, the ceiling heights reinforce an understanding of the plan as two long legs with a connection in the center. Moreover, the

The house is meticulously detailed; its furniture—except chairs—is also designed by the architects.

Facing page: The fulcrum of

Facing page: The fulcrum of the house is a two-story living room at one end of which is the glass-block-enclosed staircase.

Top right: View of courtyard with sundeck and patio set perpendicular one story apart. Bottom right: Detail of steel grate entry wall.



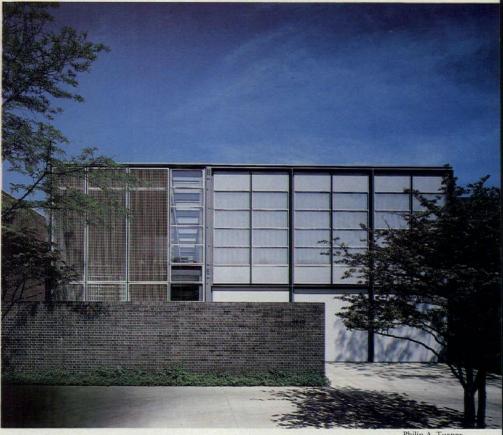
severed, to be read as the edge of yet another rectangle. This one connects living room and courtyard, defined opposite by notches in the garden wall. The terrazzo floor slides outside to form a patio, belonging fully to neither room nor court and held isolate further by its correspondence to the sundeck above. The prefab framing system has been

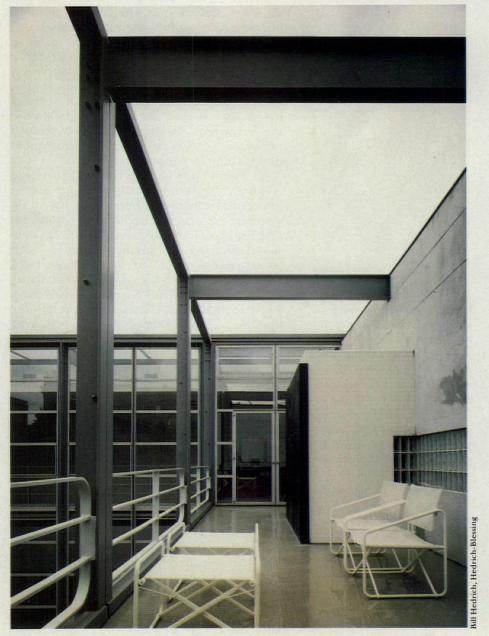
employed in its full range. Where elevations are parallel to beams, skin (whether metal or glass) is pushed out. Where perpendicular, it is pushed back as infill. In terms of material, the elevations are divided into side (metal) and front and back (glass). But the distinctions between skin and infill divide the building into three parts—the long back and short leg division of the light wand.

Palette on ice

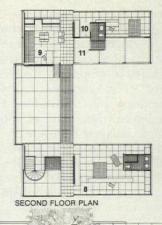
The furnishings and interior envelope gave the architects another arena for exploration. Materials range from industrial to voluptuous-different in touch, association, weight, density, but each particularly receptive in its way to the play of light, which becomes the unseen protagonist. Materials are repeated throughout the house in different-and unexpectedly rich-colors or systematically explored, such as glass, which appears clear, sandblasted, as block, and as mirror. Pattern adds another theme, whether the tight-knit terrazzo or the modular grids of windowwall, tile, block, and grating (always square on the horizontal, rectangular on the vertical).

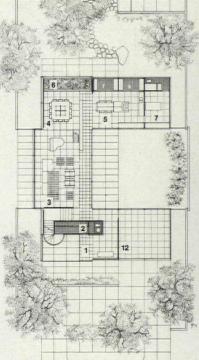
Light is one thing by day, another by night. Just as the solids and voids reverse themselves-true of all glass buildings, but especially elaborated here—so does the palette undergo a transformation. By day, the colors are very cool-pale, icebox fresh food





Progressive Architecture 12:81





Legend
1 Foyer 7 Servants room/bath
2 Powder room 8 Master bedroom

2 Powder room
3 Living room
4 Dining room
8 Master bedroom
9 Study/storage
10 Bedroom/bath

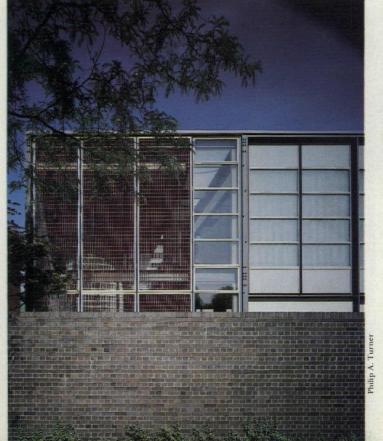
5 Kitchen 11 Sundeck 6 Conservatory 12 Garage

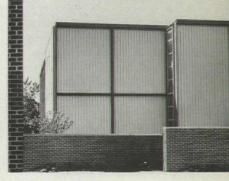
FIRST FLOOR PLAN ←N

Facing page: The house is pushed back, with a privacy wall of iron spot brick on the normal setback line to maintain continuity with the neighborhood (top). The guest bath protruding into the sundeck (bottom) was originally envisioned as a miniature of the house, with the glass block continuing up and over the point of intersection, dividing the bath by light as the skylight divides the house. The charcoal stucco wall slips off its edge slightly, articulating the distinction between volume and surface.



Sadin/Karant Photography





This page: To present a strictly planar façade, the architects hung a veil of subway grating in front of the glass block stairwell (left). The quasi-interior foyer created (top) is a kind of crystalline void where light is filtered and reflected. Above: A side elevation, with metal siding infill. Framing expresses a distinction between the two stories at the ends and the double-height living room in center.

This page: The dining area (left photo) is a restrained foil for colorful incidents—gray velvet, gray marble, gray terrazzo—bounded by a burgundy cabinet, melon wall above, and plantfilled conservatory.

The master bath (right top) seems to be molded of white tile inside and out, with only slight inflection for fixtures. The doors are gridded wire glass sandblasted from the inside, and the mirrors silvered insets in a sandblasted frame.

The table bases (designed by architects) also are variations on squares and cubes. Detail of coffee table (right bottom) milled from stainless steel plates, its edges polished and surfaces sandblasted.

Facing page: The architects have proposed a mural for the long wall of the living room (top) out of which the objects and walls of the room would seem to have been unfolded. Color expresses in between space and white the places from which the objects have been removed.

Collage is suggested as well by the custom rug with its colored rectangles floating across the free sides (center and center right).

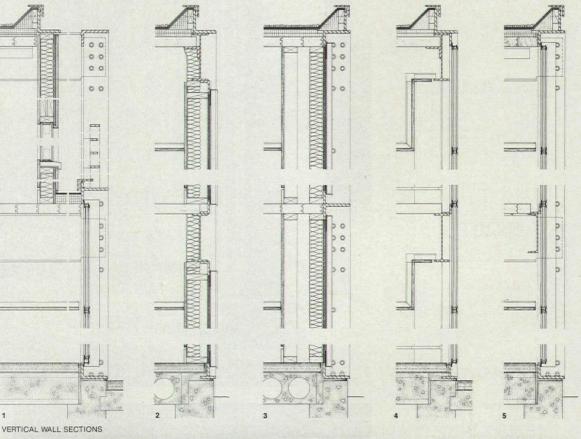
Cabinetry throughout combines marble and lacquered wood in luscious colors. In the study (right bottom), the shelving and fireplace piece—with a wet bar on the other side—is a warm sea green.

colors: cream, eggplant, melon, burgundy, salmon, celery—and vague in-between colors: pink-beiges, blue-greens, and grays that turn blue one hour, violet the next. At night, the interior turns golden.

The furniture—all but chairs—is designed by the architects, as multiples of squares or cubes. The metal table bases in particular are intersections of squares as if "unfolded out of a cube." Krueck compares them to "Donald Judd's idea of an open box that implies volumes and measurements which keep moving." A hierarchy is implied between first and second story with the squares hollowed below and left filled above. Plane and line are distinguished by sandblasting surfaces and polishing edges. A similar distinction is made

between surface and volume where painted gypsum board slides off the edges of the tilecovered bathrooms and front closet.

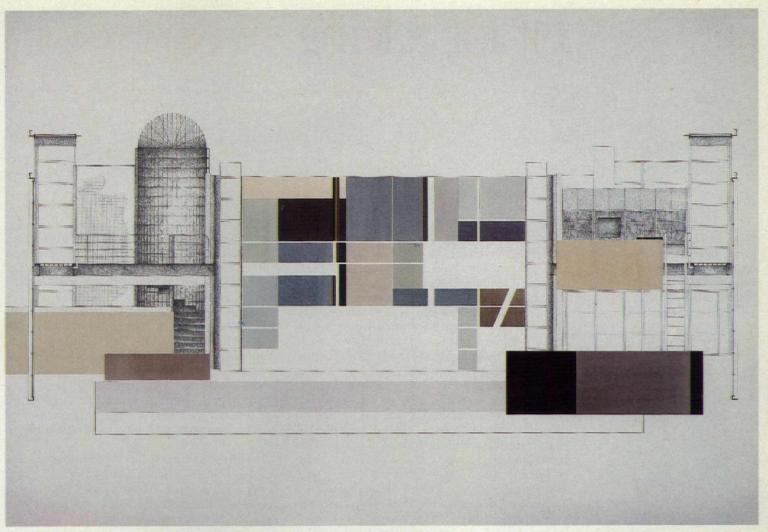
The entire house is a series of parallel and perpendicular layers. Objects, volumes, and walls are turned 90 degrees to each other. The almost Wrightian entry sets the tone with no fewer than six turns to penetrate the ever more private layers. What keeps the experience from degenerating into a muddle of lists, besides the relentless limitation of subject matter, is a taut balance between contradictions. The arbitrary placement of color contrasts with the rigorous spatial divisions just as the happenstance montage of the rug undermines the compulsive lining up of siding screws, structural bolts, and muntins.











Everywhere the house is dominated by the tension between flatness and dimensionality. The gridding can be easily read as holding and receding from a picture plane. Structural elements are turned sideways to read only as edge. The house is so much thought of in terms of drawing that the architects have literally drawn on it-on the elevations with red mullions, and on the sundeck, incising stucco as if only the lines were left when the structure was eroded. Both pull away from their surfaces. Planes are also set fluctuating by color; figure/ground ambiguities (rug, bathroom mirror); and repetition (three-layer partitions closing kitchen and guest wing, where tonal distinctions suggest a different relationship in space than does position). A similar effect is gained by painting windowwall medium gray and window frames lighter. The proposed mural would remove any lingering complacency.

It is reminiscent of Analytical Cubism and its later variations—the transparency, overlap, ambiguity, and unrelieved oscillation between canvas and illusory depth. To the techniques of painting is added visual and kinetic memory, the overlay of the object just passed.

The effect of contradiction, of course, is to transfer significance from the object itself to the experience of the beholder. Translating, however subconsciously, from the 18th to the 20th Century, the architects have changed the subject matter from truth to understanding. [Nory Miller]



Project: House, Chicago. Architect: Krueck & Olsen, Chicago.

Site: 67' x 127' flat lot. Program: 5000-sq-ft private residence for one person.

Structural system: shopfabricated steel angle frames, and bar joists.

Major materials: steel, glass of different opacities, ribbed metal

Consultants: Gullaksen & Getty, structural; J.P. Bazzoni, mechanical.







Progressive Architecture 12:8.

Fit for a king

New additions to a famous horse-breeding farm in Kentucky are as special as the thoroughbred stallions they were designed for.

Costly thoroughbred stallions at stud are housed in a new "village" complex of eight barns designed by Theodore M. Ceraldi at the Gainesway Farm in Lexington, Ky.

It is extremely rare that horse barns would ever be covered in the pages of an architecture journal, but those at the Gainesway Farm outside Lexington, Ky, are in many respects as exceptional as the horses for which they were designed. Few architects will ever be asked to undertake such a commission, but on the other hand, few farms house such horses.

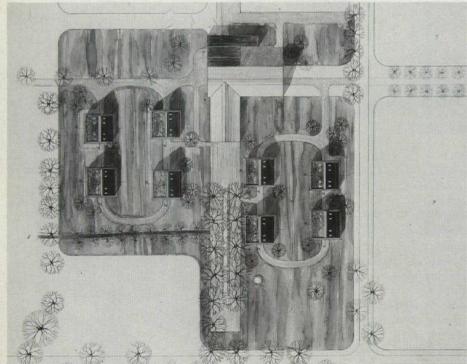
The 47 thoroughbred stallions at Gainesway Farm are retired race horses, most with renowned records, that are now kept as studs; their aggregate worth is over \$300 million. The 32 most valuable stallions are housed on the 500-acre farm in a "village" complex of eight barns containing four stalls each. This arrangement alone is somewhat revo-lutionary, but it, as well as everything else concerned with the design of the barns, has been done primarily for the safety and wellbeing of the horses. "It is basically a matter," owner John R. Gaines says, "of protecting an investment." The horses are syndicated (one at \$40 million), so each has a number of shareholders. Consequently, the farm owner is not only protecting his own interests, but those of others as well.

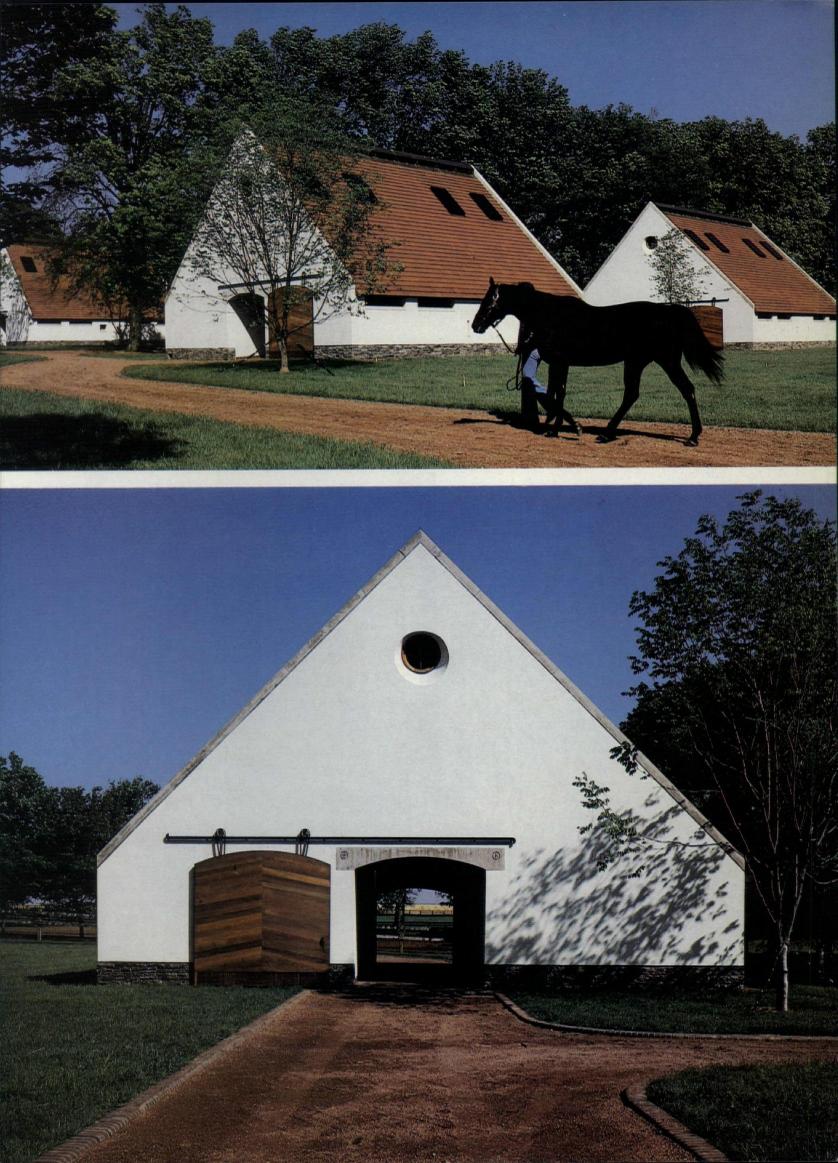
High-strung thoroughbreds tend to panic with slight provocation, in which case they can harm themselves or others around them. Therefore, the wall hooks for all the tether-

ing devices used in the washing, grooming, and feeding areas are designed to be pulled out of the wall before the horse can harm itself. The wash areas are inset with rubber pads, and in the stalls the wainscoting (of unpalatable red oak) is canted out at the bottom and loosely fitted to give if a horse kicks the wall. All corners have been bullnosed to eliminate sharp edges. The wrought steel stall gates, which slide on self-oiling bronze wheels, have a small grid at the bottom to protect the horse, but wider openings at the top to accommodate viewing; their metaphorical design suggests a horse looking out of the

A four-horse barn has certain distinct advantages over a larger structure; for one thing, each horse is in immediate proximity to an exit door in case of fire or any other calamity. Another advantage is that if disease occurs, it could be confined to one barn, and with proper ventilation, one hopes to one stall. But even without the threat of disease, ventilation is of great importance for the well-being of the horses. Because of inherent difficulties of ventilating a small space, though, special attention had to be given to the problem of air exchange. This explains the extreme pitch of the roof. Ventilators at the roof ridge draw from two narrow, upward-angled windows under the eaves in each stall to create a strong upward air movement along the interior of the walls and roof, without causing a draft in the stall and consequently on the horse itself.

Because the barn roofs are oriented toward prevailing winds for ventilation, and because of other roof load conditions, the roof structure has been separated from the walls to avoid their cracking. Loads are transmitted to foundation piers by a three-hinged, laminated timber arched structural frame that is tied together by curved collar beams and round diagonal cross-bracing. The thick masonry walls and one-inch-thick clay roof tiles provide adequate mass and insulation to temper the interior climate in the unheated barns, keeping them about 15 degrees cooler





Gainesway Farm, Lexington, Ky

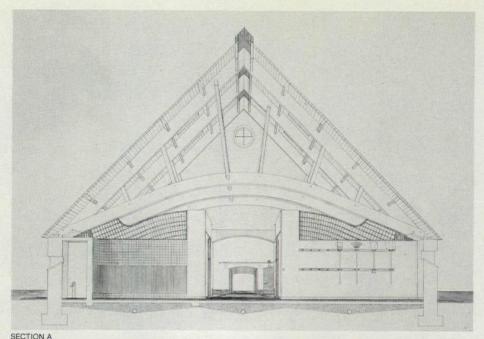
in summer, and warmer in winter, than the outside air.

The floors of the barns have been faced with wire-cut red brick that has a tooth to the surface, which provides good footing even when wet. Outside, paths and lanes leading to the lunging ring and breeding barn are of gravel and red brick chip for the same reason; and for added safety, the red brick curbs around them have been double bullnosed to avoid any sharp angles.

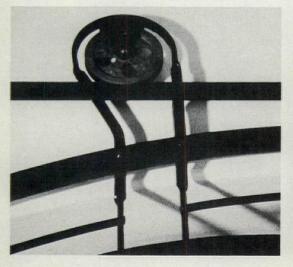
In addition to the individual horse barns, architect Theodore M. Ceraldi has also designed a new lunging ring for the farm. The purpose of this large wood structure pavilion is primarily for exercising the horses when conditions in the paddock, where a horse is more likely to be harmed than in the stall, are unsafe. In inclement weather, two horses can be exercised simultaneously on long lines in the two 60-ft-diameter rings under the vast roof. The lunging ring also serves as a place to show the horses and as a permanent outdoor pavilion for other farm-related activities.

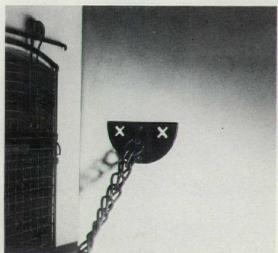
These buildings could have been, and under ordinary circumstances probably would have been, nothing more than simple, serviceable structures. But they are much more than that. They are exquisitely proportioned, finely detailed works of architecture that do not follow current trends or fashions. There are no tricks and no gimmicks, but rather a clear and direct expression of fine materials meticulously detailed by an unusually refined sensitivity.

"Everything I know as a designer went into this place," Ceraldi says. But he also remembered the old, white, New England villages of childhood. Their memory evoked the images at Gainesway, but the special vision of Kentucky was not lost in the adaptation. The simple, white form of each barn has been outlined around its base by a plinth of weathered, natural field limestone taken from old walls on the farm. The rock has been laid up with deeply raked mortar joints to recall the dry-laid walls traditional to the region, but it also serves the practical purpose of obscuring stains at the bottom level. Such concern for detail is seen throughout the complex, where

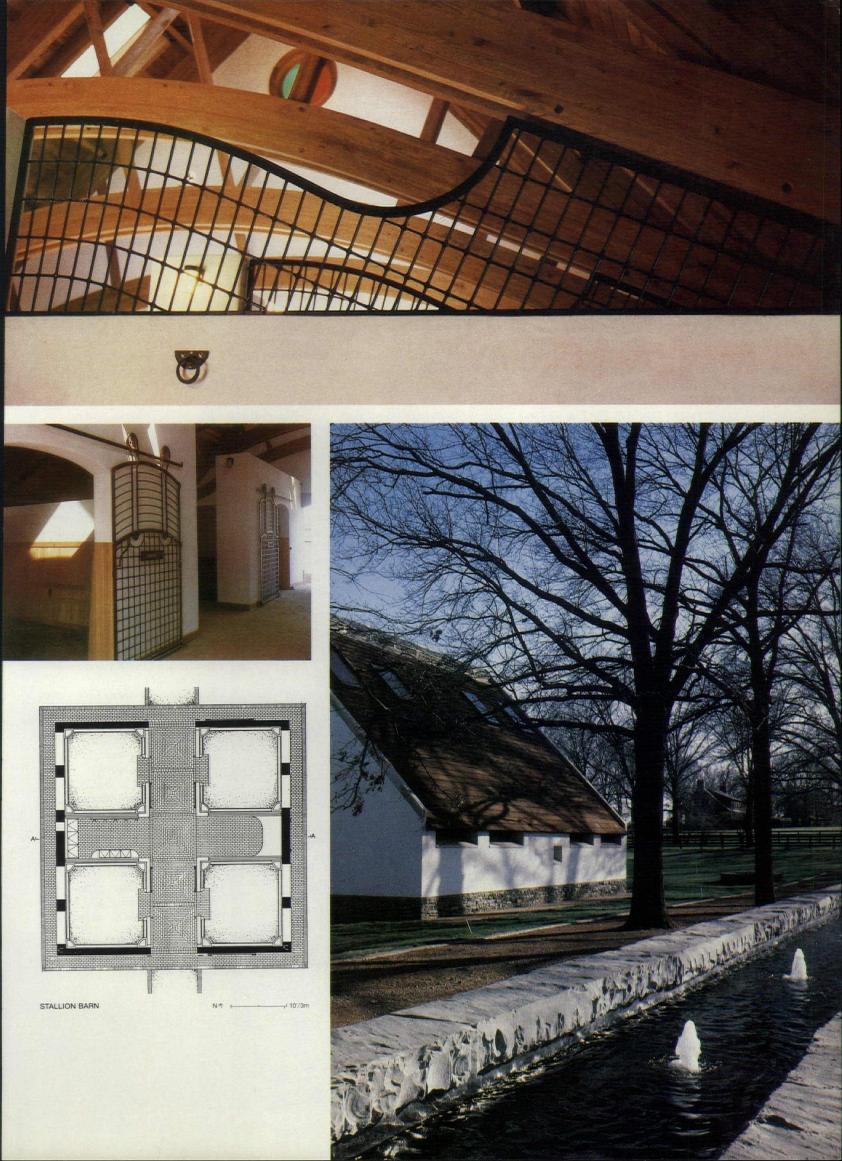








The roof structure of each fourstall barn (section top, plan right) is separated from the masonry walls to avoid their cracking. All grilles between stalls (facing page, top), gates, and hardware were specially designed and made of hand-wrought steel. The watering trough and fountain (right) are part of the continuing work by landscape architect Edwin Bye.



Ceraldi's intense interest in fine and beautiful craftsmanship is evident at every turn. Each barn has a differently patterned, hand-laid brick floor surface. Metal latches, tethering equipment, grilles, and stall doors (with name plates of etched gold-leaf letters on natural-cleft slate) have been specially designed by Ceraldi and crafted in hand-wrought steel. The exterior sliding doors are hung from hand-wrought steel tracks, and their chevron pattern of red cedar is terminated by a copper base plate.

The result of these efforts, now carefully set into the gently rolling landscape of the bluegrass country, speaks of a kind of serene and timeless natural beauty that is rarely seen today. To enhance that vision, the barns have not been aligned rigidly on the orthogonal grid, but each has been slightly offset, thus relaxing the formality of the composition.

It is a special client who encourages this kind of expression, and that story goes back several years to the time when John Gaines hired landscape architect Edwin Bye to do some work at the farm. Bye, who is often acknowledged to have perhaps the most refined eye in the business, spent several years on the 500-acre farm designing stone walls, arranging planting of everything from flowers to trees, designing gardens, and moving tons of earth around to mold the landscape into the special beauty that it has today. If not told, one would not know that this was not simply a place where nature had been especially kind. But, Bye says, "It has often been the story of

my work that one never knows I've done anything."

It was that subtle quality, though, that John Gaines saw. He is that rare combination of an extremely successful businessman with a highly refined aesthetic sensibility. At the farm it is immediately apparent that the guiding eye behind the physical environment is the same one that collects art of the great masters for the house, or that selects the world-renowned stallions that have made Gainesway famous.

When Gaines decided to build the new barns, he originally asked Bye to design them. Bye, however, not being an architect, recommended hisnformer Cooper Union student and former employee Ceraldi, who was then given one weekend to do research and come up with a schematic design for a building type he had never done before. When Gaines, Bye, and Ceraldi met for breakfast in New York on the following Monday morning, however, the deal was closed.

In discussing the barns recently (in *The Blood-Horse* magazine, Aug. 8, 1981), Gaines said "... when you are generating, say, \$2 million a year with a stallion, if you can (by safety and management) extend the breeding career of any one of these horses by several years, you are dealing with a staggering amount of money." That is the businessman-protecting-the-investment talking. But in the same interview, he said, "We could have attained the same degree of safety at less cost, but these animals are kings and I wanted them to be housed like great patriarchs." That was the connoisseur talking. [David Morton]

Data

Project: horse barns and lunging ring, Gainesway Farm, Lexington, Ky.

Architect: Theodore M. Ceraldi, Nyack, N.Y.

Program: eight barns of four stalls each, designed primarily for safety of valuable breeding stallions; and a lunging ring for exercising horses on long lines during inclement weather.

Site: a 500-acre horse farm on the bluegrass plateau.

Structural system: barns: concrete footings on rock, stone and concrete block walls; three-hinged laminated timber arch roof support system. Lunging ring: reinforced concrete piers pinned into bedrock; laminated timber three-hinged arch superstructure.

Major materials: barns: clay tile roofing; interior and exterior stucco; field-cut native limestone base, coping, lintels, and sills; brick and porous asphalt flooring; yellow pine laminated timber frame; red cedar decking; quarry tile wall and base; hand-wrought steel gates and grilles; red oak wainscot and casework; acrylic skylights. Lunging ring: laminated tongue-and-groove pine decking covered by baked aluminum sheet roofing; side walls of tongue-and-groove western red cedar; floor of shredded tanbark over sand and gravel; perimeter wall encircled with paving brick (see Building materials, p. 122).

Mechanical system: barns: electric hot water heater; vacuum system; electric hot water heater in plumbing chase. Lunging ring: central underground sprinkler system for dust control.

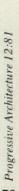
Consultants: A.E. Bye & Associates, landscape; Boswell Engineering and Laminated Timbers, Inc., structural for lunging ring.

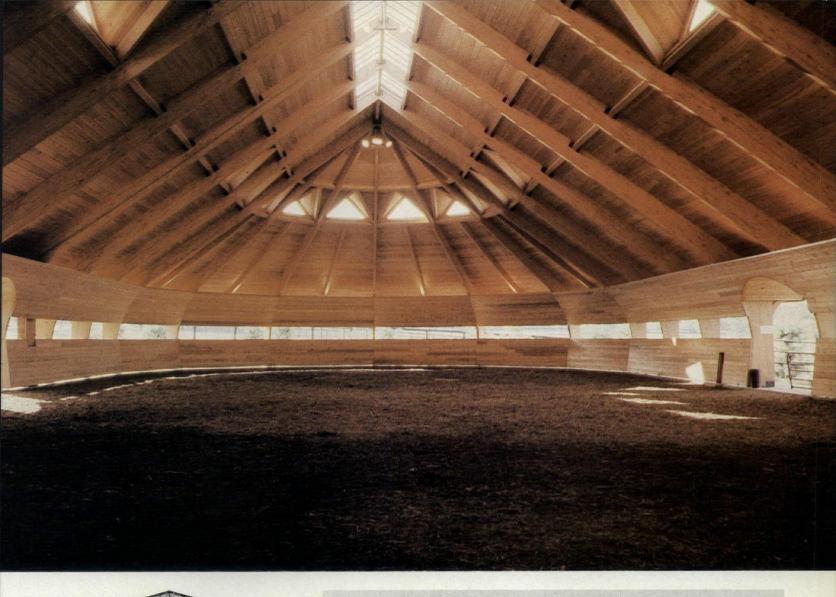
General contractor: C.E. Pennington Co. for barns, Gainesway Farm for lunging ring.

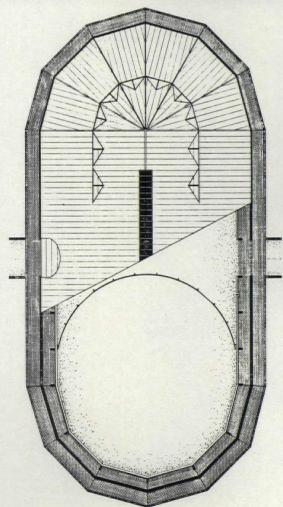
Costs: lunging ring, \$33 per sq ft; barn cost withheld at request of client.

Photography: A.E. Bye and Theodore M. Ceraldi.











In the lunging ring (this page), horses can be exercised on long lines during inclement weather. An office addition for records, video equipment, and a computer has also been designed by Ceraldi for the farm (right).



Progressive Architecture 12:81

Le Corbusier's sketchbooks

The sketchbooks that Le Corbusier identified for publication are now appearing, and a selection from Volume I is presented here.



Sketchbook A1: 1914

"A1 is the first sketchbook in the classification system established by Le Corbusier in approximately 1955." In it, Charles-Edouard Jeanneret practices his initials (28).

Sketchbook A2: 1915

"Two designs in A2 (89, 90) represent the first instance of . . . interest in skyscrapers and their placement in large green areas of the city. . . . The second most important subject in this sketchbook is . . . the Domino house (80),' some aspects of which are incorporated into the Villa Schwob (109). Figure 113 is an early example "of his interest in the tracés régulateurs that resulted, in the 1940s, in the Modulor...." One sketch (132) refers to the exhibition "Reims Martyr" in Paris.

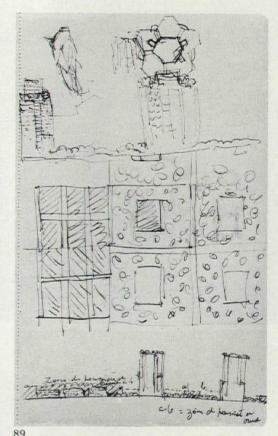
All of the quoted passages and sketches reproduced here are from *Le Corbusier Sketchbooks*, *Volume I*, 1914–1948, and are used by permission of The MIT Press, Copyright © by Fondation Le Corbusier and The Architectural History Foundation.

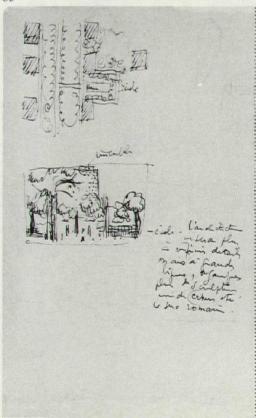
This summer the first volume of Le Corbusier's sketchbooks was published, and the second of what will eventually comprise four volumes has just been released. These reproduce the 73 notebooks that Le Corbusier catalogued before his death in 1965. The first volume covers the period 1914-48, the second 1950-54, the third 1954-57, and the fourth 1957-64. The volumes, all of which will be available by next spring, are being published cooperatively by The Architectural History Foundation, The MIT Press, and the Fondation Le Corbusier. Volume I contains a preface by André Wogenscky, President of the Fondation Le Corbusier, and an introduction by Maurice Besset, professor at the Ecole Polytechnique Supérieure in Geneva and Le Corbusier's literary executor. In all four volumes, notes to the individual sketchbooks (from which our captions are taken) are by Françoise de Franclieu, Curator and Council Member of the Fondation.

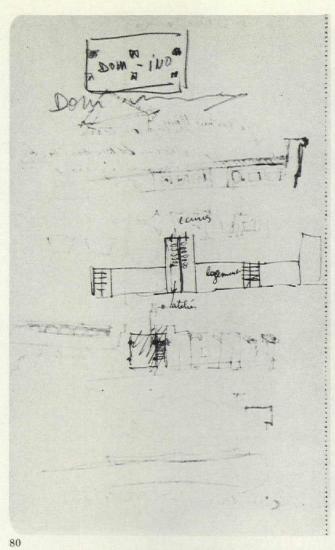
In his preface to Volume I, André Wogenscky notes that "Le Corbusier drew as one would take notes, without trying to make a pretty picture, simply to imprint upon his memory some central idea, to remember it and assimilate it. He often said, 'Don't take photographs, draw; photography interferes with seeing, drawing etches into the mind.'"

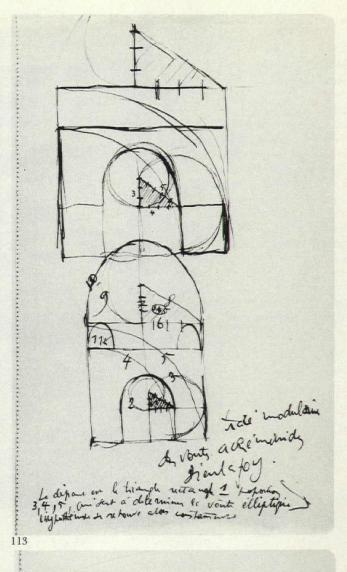
Wogenscky continues, "When the Fondation Le Corbusier became the legal heir to all his possessions, one of its first objectives was the publication of these notebooks. . . . The originals of these hitherto unpublished notebooks are too fragile to be used by scholars and students. It was essential to make them accessible. . . . Through them one can see the evolution of a continuous body of work and understand it in each phase of its development. These notebooks are the most private of Le Corbusier's work, the most spontaneous, perhaps the most significant, encompassing all the others—the work of an entire lifetime."

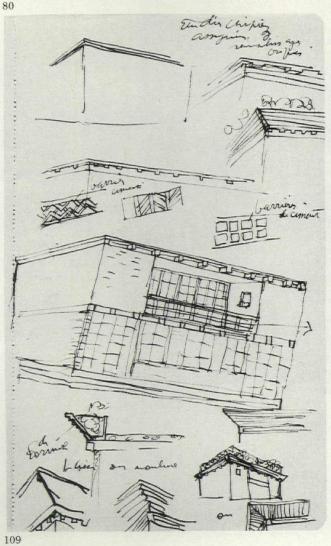
On the following pages, a selection of sketches is shown from Volume I. In them, one can see early thoughts concerning such projects as the Domino system, Villa Savoye, and Ronchamp, as well as early ideas about the Modulor, about urban planning, and other interests that filled the more than 4000 pages of the sketchbooks.











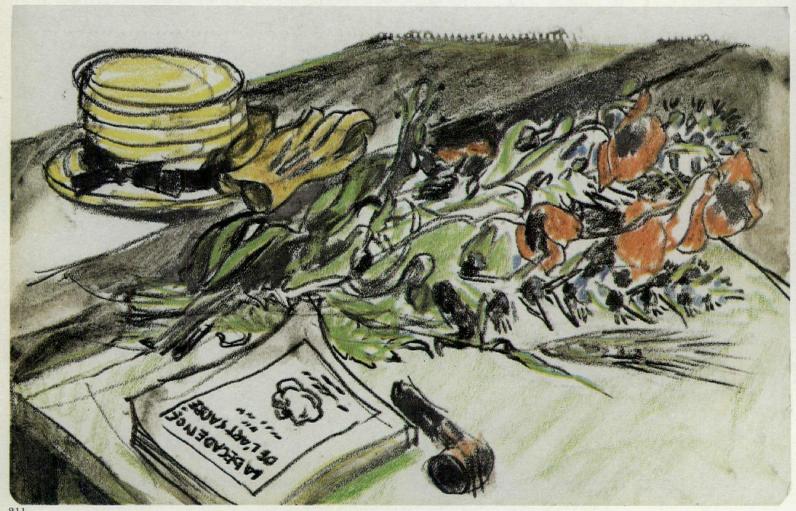


Le Corbusier's sketchbooks

Sketchbook A3, 1918

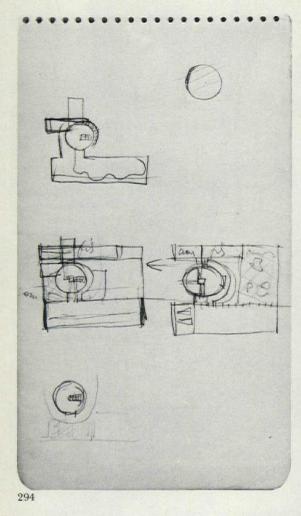
"This sketchbook . . . reveals perfectly the dual roles of painter and architect described by Le Corbusier himself in the following: I have not stopped painting daily since [1918], extracting from wherever I could the secrets of form and developing a spirit of invention in the same manner that the acrobat trains his muscles every day and achieves control. I believe that if people are going to see something in my work as an architect, it is to this private labor that one should attribute its deepest quality.' (Le Corbusier, Dessins, Petit, Geneva, Forces-Vives, 1968.)"

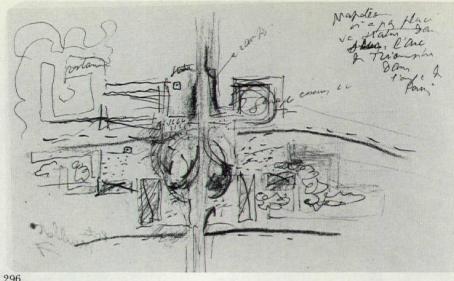


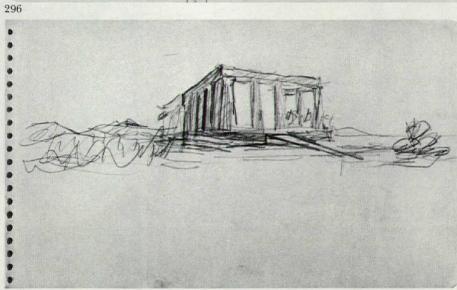














Sketchbook B5: 1930, 1933, 1948

"Even if our present knowledge of Le Corbusier were discounted, the intense activity with which he was involved in the thirties would become apparent from the multiplicity of themes in this sketchbook. . . . This activity is exemplified in the first pages by a sketch of the Villa Savoye (294), a planning proposal for the Port Maillot (296). . . . However, the greatest number of sketches can be divided into two categories: those made during the CIAM conference in Athens in 1933 (312) . . . and those related to agrarian reforms and planning."

Sketchbook B6: 1931

"The 1930s were a particularly fertile period for Le Corbusier, and the pages of this sketchbook reveal the genesis of his activity in those years. After the severity of Purism, there begins to emerge in Le Corbusier a sensitivity for more curvilinear forms and for the reality of materials. . . . Numerous studies of boats, cordage, and female bathers in the Arcachon Basin . . . with precise color notations, emphasize the extent to which the architect's eye is also that of the painter (363, 372). . . . Finally, a return to architecture (390), with several scenes of domestic life 'sous les pilotis,' . . . confirms Le Corbusier's constant preoccupation with minute analysis of the human gesture in everyday life."











644

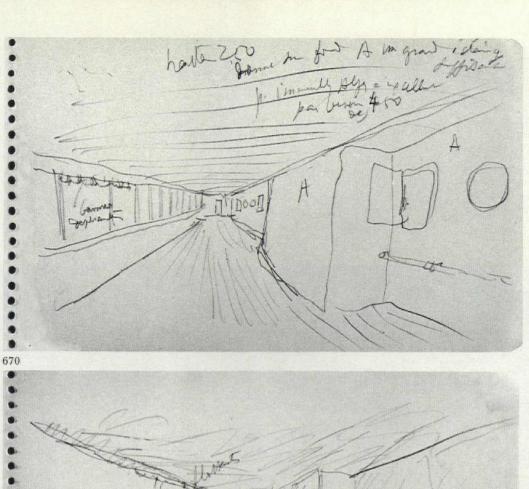
Sketchbook B7: 1931

"... this sketchbook is full of rich notes on the trip to Spain in 1931 with Fernand Leger and Pierre and Albert Jeanneret. . . . The travelers continue through Algeria. . . . A few sketches record Le Corbusier's stay in Algiers (463)."

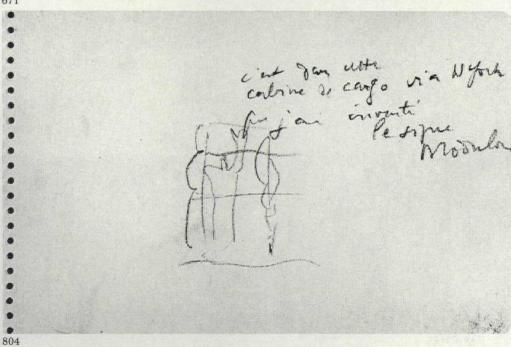
Sketchbook C10: 1932

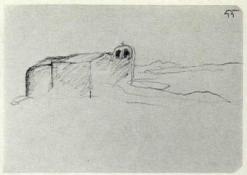
"As an urbanist interested in the problem posed by the city, and as a witness of industrial civilization, Le Corbusier . . . seeks a balance between built volumes and free spaces, as in the sketches for the development of a commercial center for the new port of

Barcelona—the Macia Plan (644)... The last pages consist of more sketches for Algiers. . . . The two final drawings (670, 671), executed aboard ship on the way home, present 'proofs' for the correctness of window and living-space dimensions for housing projects."

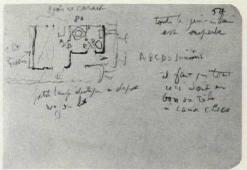




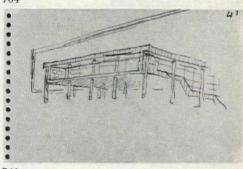




703



704



741

Sketchbook C11: 1928, 1929, 1934, 1936

"Le Corbusier used this sketchbook at different periods. . . . The undated drawing of a small country church (703) may anticipate the belfry at Ronchamp. The organization of a sleeping compartment in a train (704) is measured and described. For Le Corbusier, to see is to measure in order to preserve the architecture's 'dimensions.' "

Sketchbook C12: 1936, 1938

"In 1936 Le Corbusier was engaged as a consultant for the building to house the Ministry of Education and Health in Rio de Janeiro, built in 1943-44 by a team of Brazilian architects (741)."

Sketchbook D13: 1945

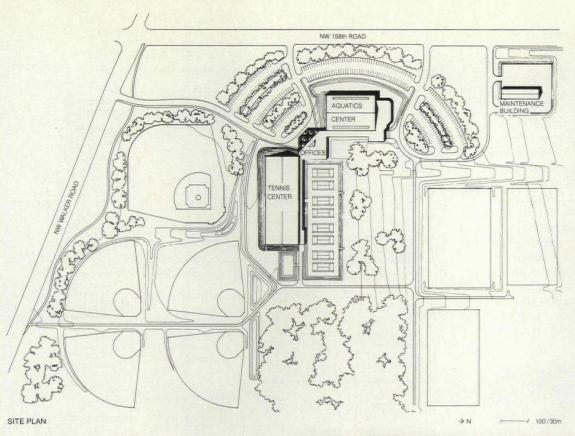
"This sketchbook . . . contains drawings and notes made during a crossing from Le Havre to New York . . . on the Liberty ship Vernon S. Hood. They are decisive for the finalization of the Modulor. . . . " The notation on the drawing reads: "It was in this freighter cabin on the way to New York that I invented the Modulor symbol (804)."

Two Oregon Recreational Facilities

Forms of recreation

Though sites and programs are different, the two latest recreation facilities from Portland architects Broome, Oringdulph, O'Toole, Rudolf & Associates carry on a lineage started with their "Green Y" (P/A, August 1978, p. 52). All share the clarity and strength of design and detail and the bold application of color.

Seen from across surrounding agricultural fields (right), the Tualatin Hills facility nestles into the landscape. Up close, detailing at the entry canopy (opposite page, center) is crisp and delightful. Besides the yellow entry accent, the shower/locker facilities break free of the main form (opposite, bottom) in yellow metal panels.



Data

Project: Tualatin Hills Sports
Complex, Beaverton, Or.
Architects: Broome, Oringdulph, O'Toole, Rudolf & Associates, Portland, Or. Principal
in charge, Robert E. Oringdulph; project manager, Frank
C. Swinney; project designer,
Stanley G. Boles; job captain, J.
Laurence Chew; interior design,
Nancy L. Richmond.
Client: Tualatin Hills Park &

Client: Tualatin Hills Park & Recreation District.

Structural system: concrete pool, diving platform, retaining walls, and floors. Steel truss roof framing, pool and tennis buildings; wood frame roof over administration and maintenance buildings.

Mechanical system: maintenance building, administration building, and tennis administration: electric duct heaters. Air conditioning in administration building only. Aquatics building:

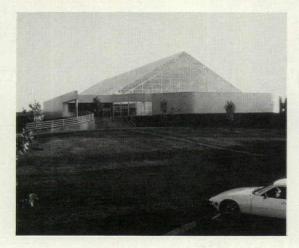
Tualatin Hills

Billed as the largest recreation facility in the state of Oregon, the Major Sports Complex for the Tualatin Hills Park & Recreation District presents an impressive array of possible activities. Located in a rural area near Beaverton, west of Portland, the enclosures for maintenance, tennis, swimming, and recreation district offices occupy 97,428 sq ft of a 66-acre site. Exterior playing fields include eight tennis courts, four softball fields, one baseball field, two football fields, and one combination football/soccer field.

Except for the 10,500-sq-ft maintenance building, the indoor activities are housed in a roughly L-shaped set of structures, pivoting around administrative offices and concessions. The western arm of the facility is the 34,280-sq-ft aquatics building, containing a 50-meter x 25-yard pool, which will accommodate AAU competition and up to three different recreational programs simultaneously. A three-stage diving tower, the highest being 10 meters, is constructed of reinforced concrete. Permanent seating for 500 spectators is provided, with deck space for additional temporary bleachers. Also included, of course, are the necessary shower, locker, and mechanical areas.

From the exterior, the structures accomplish the difficult balance of boldness and unobtrusiveness. The boldness is in form and the supercharged yellow of some of the elements. The forms are simple but strong, with white steel deck planes supported on open





gas-fired boiler, forced-air heat. **Major materials:** insulated composite steel decks, enameled steel siding, concrete (see Building materials, p. 122).

Consultants: structural, CH2M Hill, Inc.; mechanical, C.W. Timmer Associates, Inc.; electrical, Interface Engineering, Inc.; acoustical, Towne Richards & Chaudiere, Inc.; landscape, Walker, Macy, Mitcheltree & Erickson.

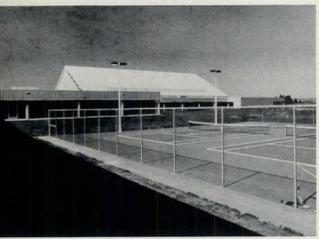
Contractor: Contractor's, Inc. Costs: \$4,231,850 (\$37.02 per sqft—1979).

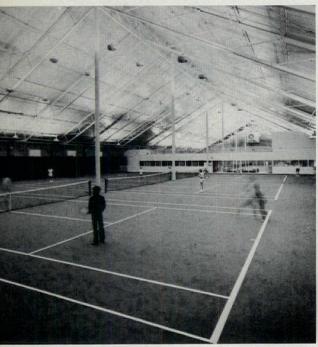
Photography: Russ Keller, Bruce Forster.

Two Oregon Recreational Facilities

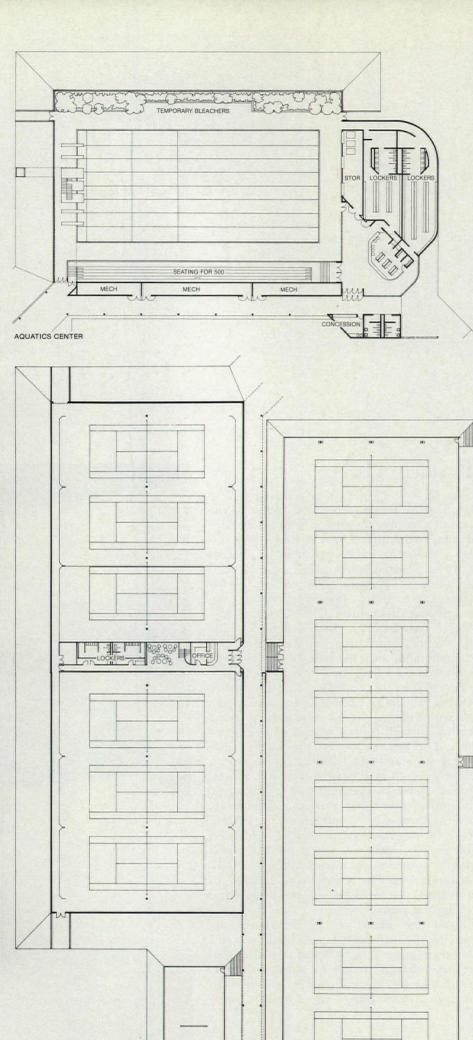
steel joists. At the ends are concrete walls topped by glazed repetitions of the joists. The yellow steel facias are on lower building elements, the entry, and the exterior walkway.

Berms on three sides of the tennis center and two sides of the aquatics center create the sense of blending in, reducing the presence of the large structures. From many angles the roof seems suspended above the landscape. A forested 9-acre knoll that runs east and west across part of the site was respected, and new plantings will screen views of the parking lots. The campus of buildings is a good neighbor, at home in its rural setting; it should maintain that, even if the neighboring agricultural land sees an influx of civilization. Beyond the skill in both massing and siting, the thoughtful handling of detail is consistent with the architects' past work.



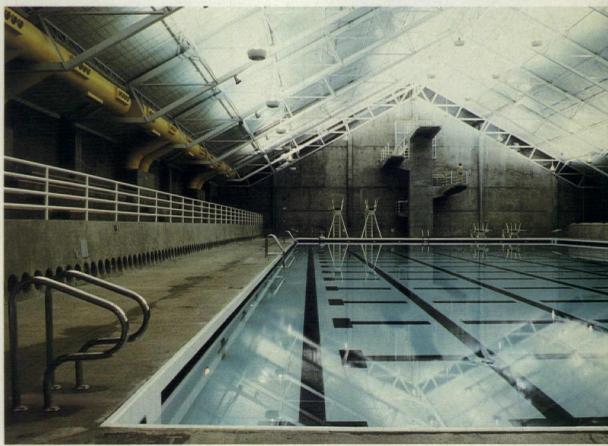


TENNIS CENTER





Outdoor and indoor tennis courts (opposite page) form a line perpendicular to the pool building (right). The entry and administrative offices (above) link the two main structures at roughly the height of the berms around them. Both the pool and the tennis buildings are brightly uplighted with HID lamps.

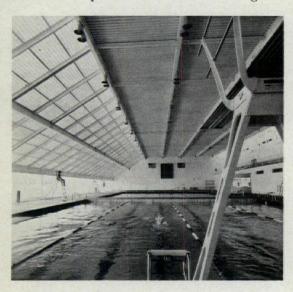


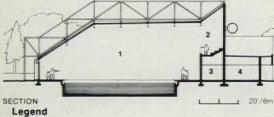
Corvallis

Instead of the bucolic agrarian setting of Tualatin Hills, the Corvallis Aquatic Center is sited along a major, if nondescript, road. The flat site is also part of an existing junior high school playing field, bounded on the south and east by suburban residential areas. The only terrain feature existing on the site was a slight berm edging the old ballfield. Additional planting was added to this berm to provide more definition to the new outdoor sunning area.

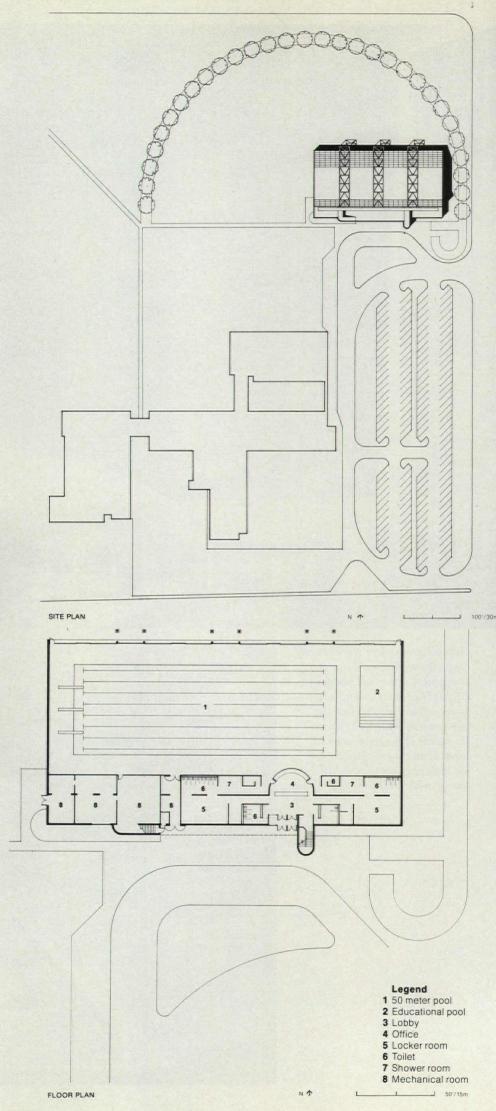
In plan, the building is straightforward, housing two pools; an instructional pool of 30' x 40' occupies one end of the long, column-free space. At the other end, a 50-meter x 56' pool meets NCAA and AAU national standards. The architects designed it to be capable of growth and change to meet the needs of the school district, Oregon State University students, and local citizens. Basically a two-story rectangle, the building contains the pools along the north side and the service areas along the south, with a viewing gallery above these.

Because of the need for uninterrupted space and the desire to decrease the building's scale and impact on the street, steel trusses were placed outside the building en-

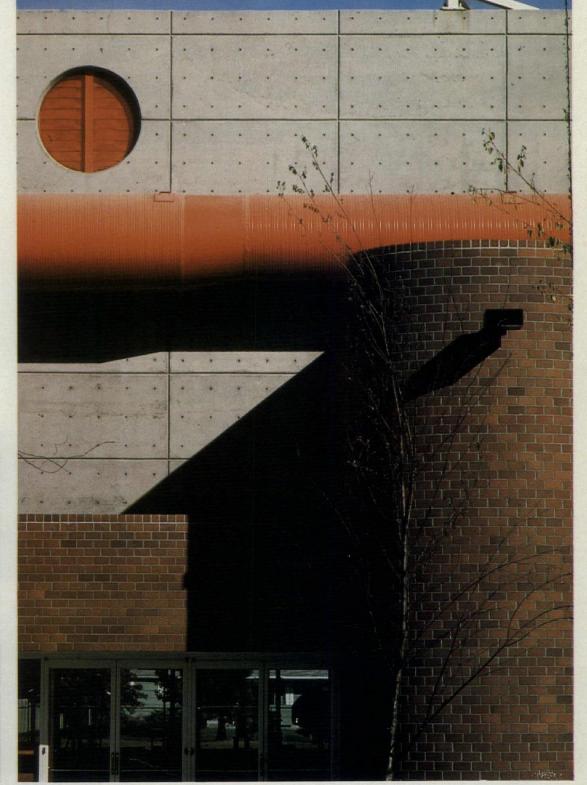




- 1 Natatorium
- 2 Bleacher seating
- 3 Shower room
- 4 Locker room



Powerful massing and bright color characterize the south façade at Corvallis (right and bottom). On the north, the structure takes over (below), allowing the side facing a major street to descend in height and providing a column-free interior.









Two Oregon Recreational Facilities

velope. These support the roof and allow it to step down in two increments; the two sloped segments are fiberglass, and allow 100 percent of natural light to be used in the daytime.

There is no mechanical cooling in the building. It is designed to allow natural ventilation through sliding glass doors on the north to flow through the space to round vents on the south.

Ductwork, which also takes up volume and can be a noise source, is placed outside the south wall, where it becomes a façade element. The duct, the round vents, the brick massing, and the striking color bands in the deep entry slot make the south elevation a lively and powerful one, a massive backup to the spidery trusses on the north. Although the program and the plan are basically simple, concerns for a maintenance-free facility with reduced volume have been incorporated in a skillful way. The result is a sculptural building and a welcome addition to an ambivalent environment. [Jim Murphy]







Data

Project: Corvallis Aquatic Center, Corvallis, Or. Architects: Broome, Oringdulph, O'Toole, Rudolf & Associates, Portland, Or. Principal in charge, Robert E. Oringdulph; project manager, Michael J. Myles; project designer, Stanley G. Boles; project architect, James H. Waddle; interiors, Jodeen Harris. Client: Corvallis School District

No. 509 J.

Site: corner of existing junior high school playfield.

Program: building of 30,862 sq ft to house two pools, locker/ shower, and office facilities. Structural system: reinforced concrete foundation, floor slab, beams, and some walls; steel acoustical deck and frame sus-

pended from tubular steel trusses.

Mechanical system: two gasfired boilers heat pool water; two
fan systems supply pool and support spaces. Heat from shower
areas is recovered to preheat incoming outside air.

Major materials: brick veneer, concrete and concrete block, steel deck and trusses, insulated translucent skylights (see Building materials, p. 122).

Consultants: structural and mechanical; CH2M-Hill, Inc.; electrical, Interface Engineering, Inc.; acoustical, Towne, Richards & Chaudiere.

Contractor: C.A. Lantz Construction Co.

Costs: \$1,880,379 (\$60.12 per sqft—1979).

Photography: Robert M. Reynolds.

Entry desk (left, top) is in the one-story band that comprises mechanical and shower functions. Spectator seating is above that band (left, center). Sliding doors open onto a sunning area (left, bottom) and provide for natural ventilation in the summer months.

Energy analysis

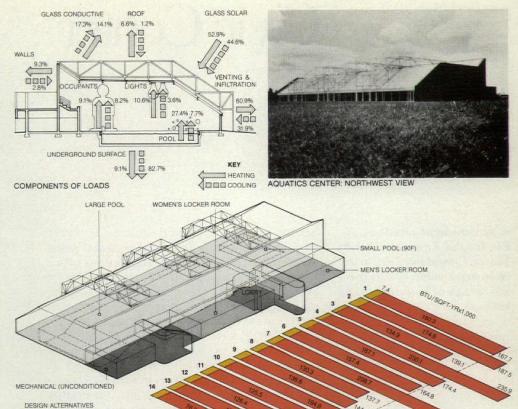
This analysis was prepared in the Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley; Vladimir Bazjanac, Ph.D., Project Director. The work is funded by the Buildings Division of the U.S. Department of Energy.

The main energy-conservation issues in the Aquatic Center are the reduction of heat loss and the maximization of solar gain. In a skin-load-dominated building like this, energy conservation is accomplished best through optimal orientation, heavy insulation of exterior surfaces, and the maximization of passive solar gain.

The energy performance of the building is strongly influenced by the two swimming pools in the main space. Both pools are heated at a constant temperature 24 hours a day for the whole year: the large pool at 82 F, the small one at 90 F. The air in the main pool space is heated to 85 F. Dressing facilities are heated to 75 F, and the entrance to 72 F. No night set-backs are used anywhere in the building. The building has no mechanical cooling. Ambient temperatures in Corvallis are sometimes very high during the summer months. The design for minimal conductive loss and maximum solar gain without mechanical cooling poses a danger of overheating inside the building, even when the human comfort zone can be extended substantially.

The building, as designed, has adequate daylighting. A design for maximum daylighting (with the entire roof transparent) would reduce electrical loads very little by comparison. The major benefit would be in the increase in solar gain: it would reduce the heating load by 8 percent. However, this solution would also cause inside temperatures to exceed 100 F quite often during the summer months. A fabric roof with transmissivity of 8 percent provides an equivalent daylighting solution, but its conductive resistance is worse. would cause a substantially higher heat loss and increase the heating load in the building by 37 percent. All windows and doors are double glazed. Triple glazing would reduce the heating load by only 2 percent. Moving all glazing to the outside of the structural system would increase the volume of the building by 39 percent; this would increase the heating load by 30 percent.

If the existing insulation were to be doubled and new insulation were to be introduced where none exists now, the heating load would be reduced by 19 percent. If the building were turned 180 degrees, the additional passive solar



3 TRANSPARENT ROOF
4 FABRIC ROOF
5 SINGLE GLAZING—WINDOWS AND DOORS
6 TRIPLE GLAZING—WINDOWS AND DOORS
7 STRUCTURE INSIDE
8 INCREASED INSULATION
9 BUILDING TURNED 180°
10 NO WATER IN SWIMMING POOLS
11 WITHOUT NATURAL VENTILATION
12 WITH AIR-CONDITIONING
13 NIGHT-TIME THERMOSTAT SET-BACKS
14 INCREASED INSULATION, BUILDING TURNED 180°,
TRIPLE GLAZING, AIR-CONDITIONED

1 AS DESIGNED 2 OPAQUE ROOF 3 TRANSPARENT ROOF

gain would reduce the heating load by 15 percent. Such change in orientation would cause inside temperatures to rise an average 5-8 F.

When outdoor temperature exceeds 80 F, the doors to the outside are open to provide natural ventilation in the pool space. This causes a substantial heat loss while the outdoor temperature is below the temperature to which the interior is heated (85 F). Without natural ventilation, the heating load would be reduced by 22 percent, but this would also cause interior temperatures exceeding 100 F during the summer. In addition, the humidity in the building would be extremely high. It is interesting to observe that if the building were to be mechanically cooled to 85 F (and not naturally ventilated), the total energy demand in the building would be 12 percent less than as designed. A significant reduction in heating load can be achieved with night setbacks. If nighttime thermostat settings are used (70 F for the pool space and dressing facilities and 55 F for the lobby), the heating load for the whole building drops by 15 percent.

Major continuous sources of heat for the building are the two swimming pools (especially the smaller). Without the warm water in the pools, the heating load in the building would increase by 22 percent. The heating of the water in the pools obviously consumes a very substantial amount of energy; the numbers in this analysis do not account for the energy necessary to heat the pools.

KEY

HEATING

ELECTRICAL

The best combination of energy-conserving strategies for this building includes the increase in insulation, turning the building around 180 degrees, triple glazing, and the provision for mechanical cooling. Such a combination would reduce the overall energy consumption in the building by 25 percent. A combination that would include additional heat-load minimization strategies (for example, a totally transparent roof) would increase inside temperatures beyond tolerance or would cause a cooling load that would result in a total demand for energy in excess of the present.

The analysis of the energy performance does not include the performance of any specific mechanical systems in the building nor any energy consumption necessary to drive such systems. It is based on annual simulations with DOE-2.1, using custom weighting factors and the TMY weather tape for Medford, Or. Its accuracy is limited to the accuracy of DOE-2.1 in representing the building's thermal behavior and does not necessarily conform to all of the details of the actual performance of the existing building (P/A, April 1980, p. 100).

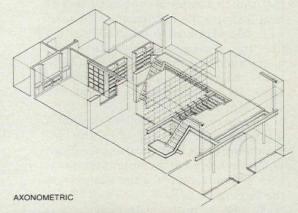
Civic Center

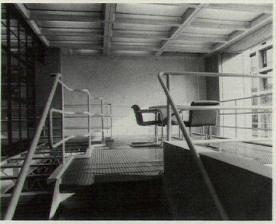
A government relations office for the American Honda Motor Company, Inc., uses industrial materials to the advantage of both image and scale.

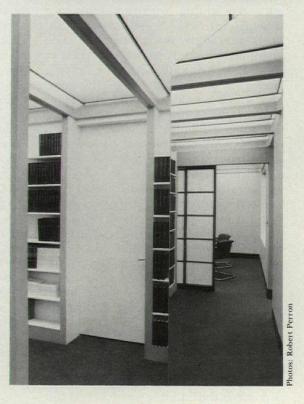
Second-guessing a grand gesture is never easy, as architects Spiker/Taylor found when asked to design a government relations office for the American Honda Motor Company in Washington, DC. The grand gesture was the existing space—one of the plaza-level suites in the L'Enfant Plaza complex, designed by I.M. Pei & Partners and completed in 1968. These expansive spaces, with 18-ft ceilings in the two front bays (which extend back 42 ft from the façade), would seem suited to banks or airline offices-which, in fact, do occupy many neighboring suites. Honda, on the other hand, has a different program and image, both of which call for a series of smaller gestures.

Honda's Washington office serves two main roles: that of public liaison (including government lobbying and public relations); and that of research and communications within the corporation. The former requires "ceremonial" spaces-reception, directors' offices, and conference room—with an image suited to a high-tech industrial corporation. The research/communications function includes the collection, processing, and storage of vast amounts of printed material, which the client considers "messy," and in need of visual screening. The client asked for acoustical privacy in the directors' offices and total visual privacy in the conference room, and insisted that all office areas have access to natural light from the glass "storefront"

The architects responded to this checklist with a series of layered zones, each of which is defined programmatically by function and formally by section and wall type. Architect David Spiker described five such zones: "First, the public plaza, open to the sky, defined by the glass storefront; second, the reception area (with mezzanine deck above), a two-story space defined by a wall of steel and glass grid; third, the directors' offices, twostory spaces defined and separated by a 'poché' wall; fourth, the private workrooms and conference room, one-story spaces defined by 'articulated' walls of post and infill; and finally, the service/corridor area, one story high, with solid partition walls." Thus, the design meets programmatic needs while selectively preserving the drama of the original volume. The mezzanine-level deck, part of which is cut away to reveal its structure and allow daylight penetration, houses a quiet work area and library; it simultaneously exploits the monumental scale of the space and



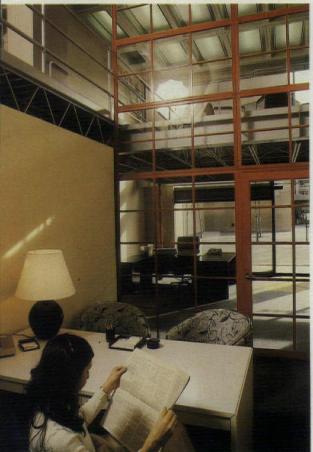




Axonometric (this page) illustrates layering of zones. Mezzanine deck is suspended from existing ceiling coffers; columns below (visible in photos, facing page) are painted red to denote symbolic function. Mirrored panel in corridor (this page) reflects conference room door. Wall of steel and glass grid (facing page) screens directors' offices, but preserves the scale of the double-height space.







breaks it down to create a hospitable entrance. Similarly, the red-painted grid wall poses questions of scale while establishing an acoustical screen for the directors' offices.

The basic design vocabulary is appropriately industrial, with a few twists, such as where the steel and glass wall grid becomes a shoji screen for the conference room's sliding door. The architects made efficient use of a big-scale space without sacrificing its innate grandeur where grandeur counted. They also integrated an industrial vocabulary with a corporate program, with results that are neither visibly industrial nor visibly corporate, but simply comfortable, workable, and frequently elegant. [Pilar Viladas]

Data

Project: government relations office, American Honda Motor Co., Inc., Washington, DC.
Architects: Spiker/Taylor Architecture, New Haven, Ct (now David Spiker Architect, New York; Taylor, Inc., Bethesda, Md); Leonard Taylor, Jr., project architect; Sharon Turner, William Boler, assistants.

Building architects: I.M. Pei & Partners, New York.

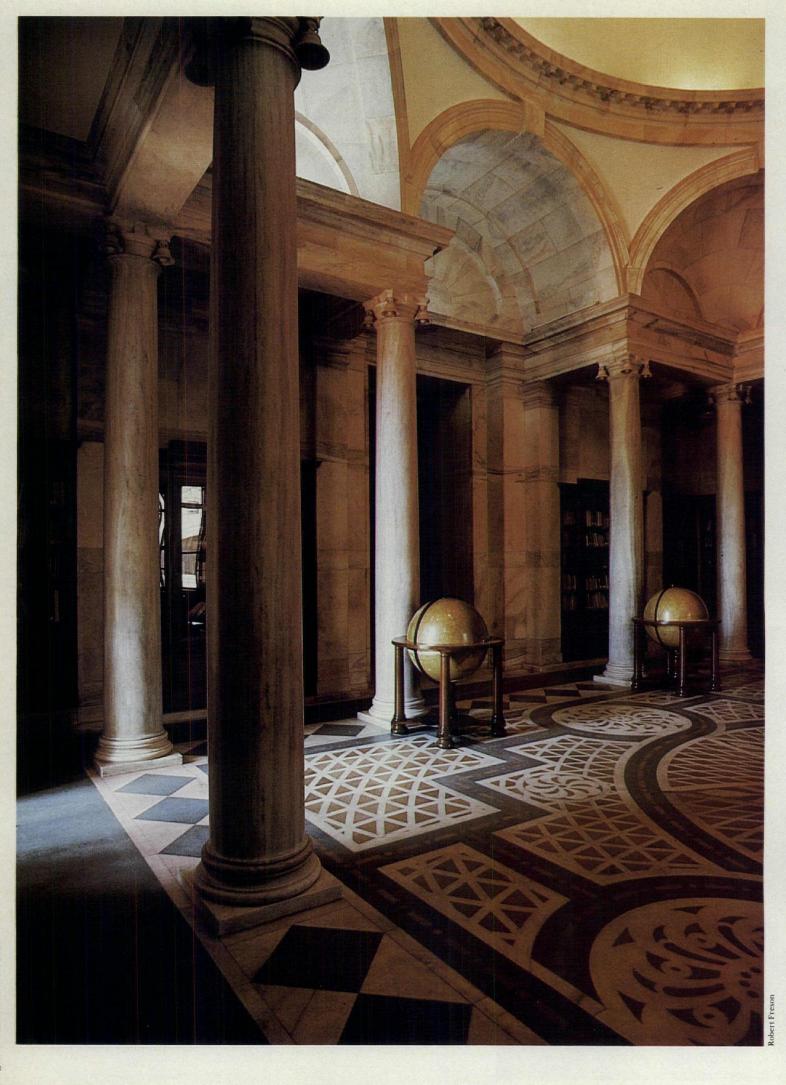
Program: a 1925-sq-ft office (with 250-sq-ft mezzanine) in the North Office Building, L'Enfant Plaza.

Structural systems: structural steel mezzanine hung from existing ceiling coffers; two-story steel and glass wall.

Major materials: WF beams; open-web joists; metal deck; steel sections; glass; gypsum board; paint; carpet; mirror; wood trim (see Building materials, p. 122). Consultants: Spiegel & Zamecnik, structural.

General contractor: Tate Industries, Inc.

Photos: Robert Perron.



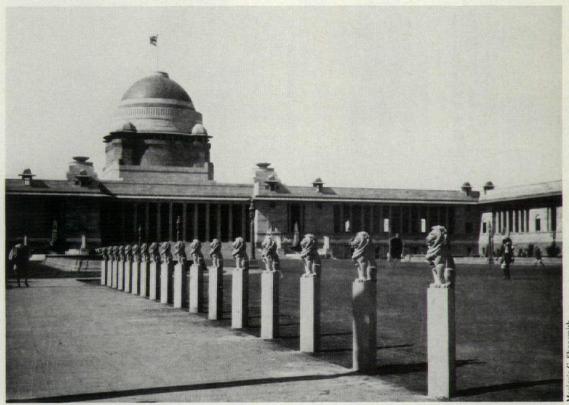
Lutyens in India

The most ambitious exhibit ever assembled of the work of British traditionalist Sir Edwin Lutyens opened last month in the Hayward Gallery, London, to be shown through January. It is to be hoped that the show will subsequently travel to the United States. In anticipation, we present Lutyens's least published work, the Viceregal palace at New Delhi, which comprises almost one-third of the exhibit

The photographs and text here are from Robert Grant Irving, largely from his forthcoming book, Indian Summer: Lutyens, Baker, and Imperial Delhi.*

Along the lateral approaches to the palace forecourt, sentinel ranks of lions in rhubarb stone, as well as sandstone elephants, boldly proclaimed British guardianship over India (right). Facing page: The State Library, like the Church of England, is a typically British compromise between Baroque exuberance and Puritanical sobriety. Twelve columns make an inner square, four at the angles supporting semidomes, eight equidistant from center carrying the arches of the main dome. The severity of the plasterwork provides a counterpoint to the dancing arches and the interlaced quincunx of circles in the astonishingly intricate yellow, gray, and white marble mosaic floor.

*Copyright © 1981 by Yale University, excerpted, with permission, from Indian Summer: Lutyens, Baker, and Imperial Delhi by Robert Grant Irving, to be published in February of 1982 by Yale University Press. An excerpt appeared earlier in P/A in October 1981.



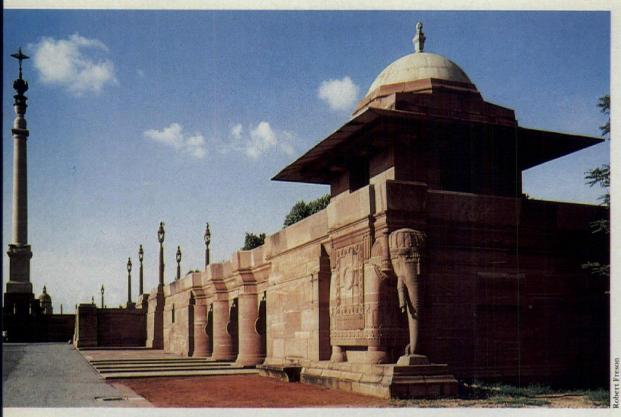


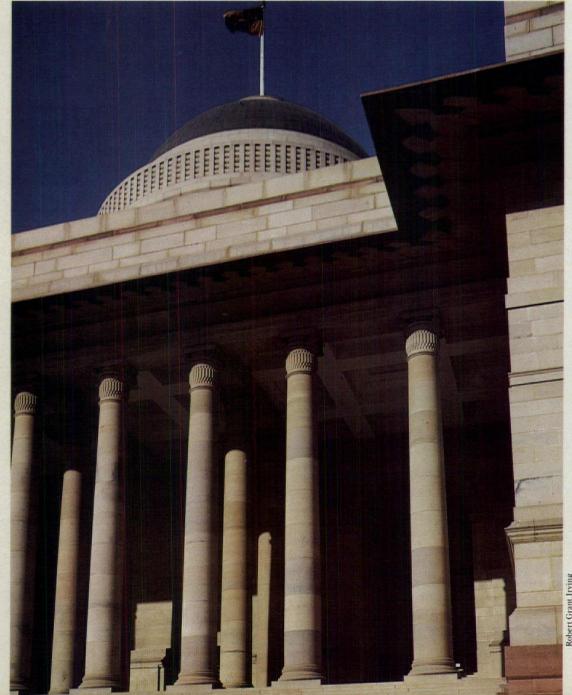
At his Coronation Durbar in 1911, the new King-Emperor George V proclaimed the transfer of the capital of India from Calcutta to Delhi. The result was the grandest architectural venture in the history of the British Empire. A deliberate political act, the new city was envisaged as a worthy setting for the ritual of imperial government. Sir Edwin Lutyens designed the monumental Viceroy's House and its titanic dome as a breathtaking centerpiece for the capital. The giant buildings and striking city plan, set in an untamed wilderness, affirmed the British resolve to bring disciplined order to the Indian subcontinent.

When His Britannic Majesty's Government declared war on the German and Austro-Hungarian Empires in 1914, few persons could have foretold that this would ultimately destroy these three empires. Only by the narrowest of escapes did the new Indian capital elude extinction or catastrophic mutilation. Yet from the very first, Imperial Delhi provoked bitter disputes. Controversy and spiraling costs conspired to delay the project.

Completed at last in 1931, the city was widely viewed as a requiem for British authority. But if the new Delhi they raised was Britain's swan song in India, it was, in Lutgens's words, "a song well sung."







Elaborately caparisoned elephants by sculptor C.S. Jagger and chattri-crowned guard-houses announce arrival at the south entrance to Viceroy's Court.

Lutyens's dome broods over the city, astoundingly animate. Austere, yet richly complex in conception, the dome is the quintessential expression of the palace itself. It rears 166 ft above the forecourt, precisely at the center of the rectangle, bounded by the outer angles of the four wings and athwart the plan's principal diagonals. Hence it appropriately lies nearer the state entrance than the garden while it presents a symmetrical appearance from every side. In general form as well as details, it married past and present, linking the legacy of the Roman, Asokan, and Mughal empires with Britain's physical and spiritual heritage.

Facing page: The basic organization of Viceroy's House is typical of his earlier buildings: a symmetrical arrangement of rooms within a square or H-plan, circumambulatory circulation, and symmetrical massing. The pivotal Durbar Hall or throne room is reached in a carefully calculated succession of constrictions and exhilarating releases. Seventy-two ft in diameter and 79 ft high, the Durbar Hall (left center) appears much bigger. India's blazing sunshine floods in, and reflected light from the marble pavements endows the room at all times with that remarkable opalescent quality characteristic of so many Indian monuments.

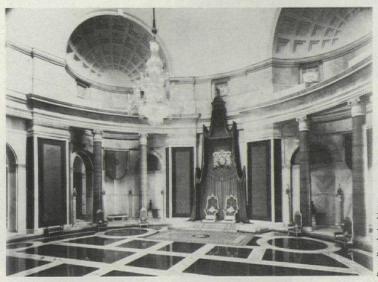
Because Lutyens planned Viceroy's House essentially as processional architecture, he expended much care and space on transition areas. The most imaginatively and complexly wrought staircase of all is intended solely for the Viceroy's family (left bottom), with that special heritage of Mughal palaces, the music and sight of running water. The glistening liquid spills into six shallow basins from the marble jaws of eight Britannic lions.

The southwest wing was a self-contained cocoon of well-protected domesticity and privacy, its furnishings designed by Lutyens (armoire, center; bathroom, center right).

The top floor of this housewithin-a-house was devoted to children. Lutyens fenced the nursery light court for safety (right), but introduced a playful parrot's cage in each side of the wooden screen. It was a perfect example of his exuberant wit: an imprisoning barrier transformed into an attractive object of great charm.



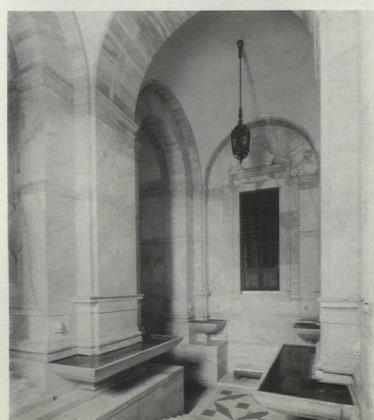


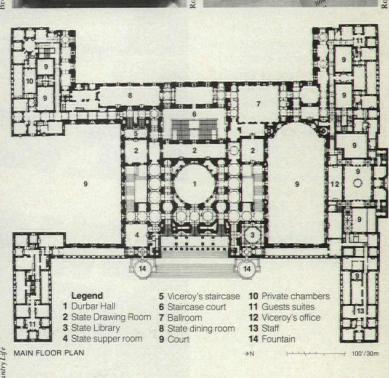






ert Freson









The garden was one of the chief pleasures of the palace, intended to be "of the Mughal type" (bottom). Water gives a theatrical unity to the whole. Circular fountains of 16-tiered lotus leaves, carved from sandstone, scatter liquid pearls from their 12-ft jets. A rhubarb sandstone pergola (top right), 12 ft wide, is bridged in part by cantilever beams, counterweighted by pendants that resemble elephant trunks. These 15 acres of bright hues and bold patterns were but a small fraction of the 250-acre grounds. There was a garden staff of 418, of whom 50 devoted themselves largely to scaring depredatory birds.

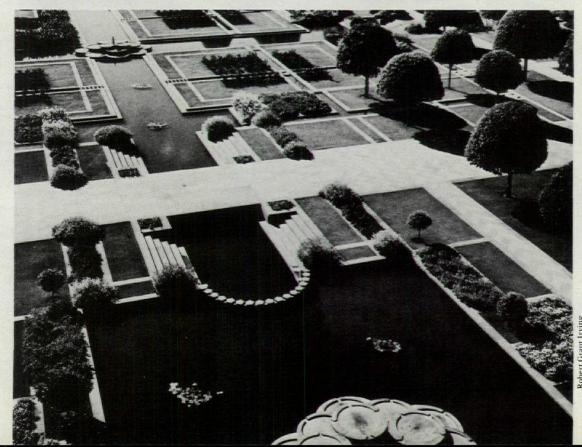
At the close of British rule in 1947, over 2000 persons served at Viceroy's House. The challenge for Lutyens was to concoct a staff village close to the palace, complementary in appearance -and clearly subsidiary to this principal focus. Lutyens endowed buildings meant for diverse functions with a harmonious unity: the stables and band house (center) had a domestic note.

At the terminus of King's Way, Lutyens designed a dignified 73-ft monument to the King-Emperor George V (above).

Facing page: Monumental sandstone steps virtually fill an entire courtyard. A deeply overhanging stone cove captures a dazzling panorama of azure heaven.









4 Progressive Architecture 12:81

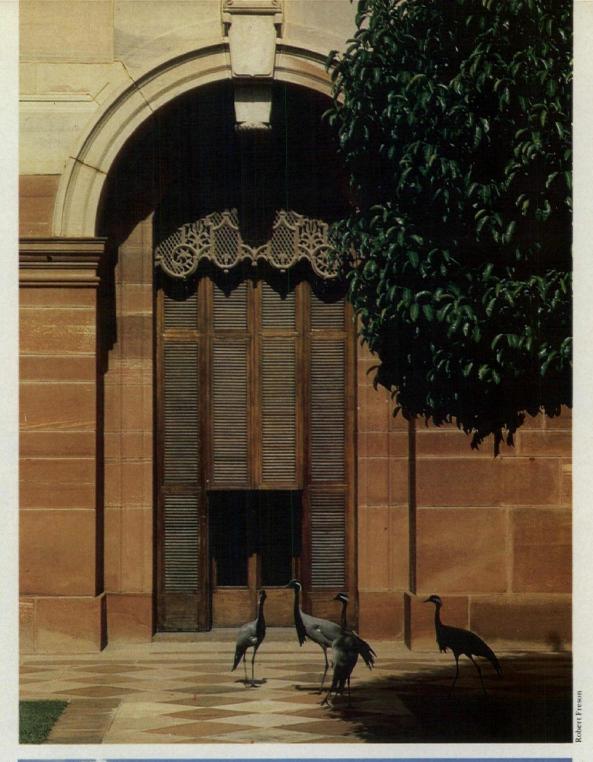
Viceroy's House, New Delhi

Pierced stone jaalis on the garden façade diffuse sunlight through stylized vegetal designs inspired by traditional Islamic ornament (top).

A western wall of stone hoops screens and also announces by its circular geometry the tennis courts below (bottom).

At Viceroy's House, Lutyens created a paradoxical edifice at once ceremonial and intimate, replete with domestic as well as scenic and dramatic elements—a palace that, despite its scale and sumptuousness, was in many ways lovable. Much of its success was due to Lutyens's wit, his ability to combine familiar forms in unexpected ways to create lively new shapes. As one critic has remarked, he knew how "one minute touch of strangeness can color a whole design and make magic out of the trite."

In his quest for cohesive, integral design, Lutyens emphasized the role of tradition, which he defined as the "inherited sense of structural fitness, the evolution of rhythmic form by a synthesis of needs and materials, the avoidance of arbitrary faults by exercise of common sense coupled with sensibility." No architect, he hoped, would compromise with the merely "good enough," but would always seek to fashion a graceful statement, with distinction and humor, akin to the conversation of civilized man.







An architectural crisis. Versacor: Robertson's response.

International in scope. ing with water vapor to

Acid precipitation has become an architectural crisis of international proportions. And it's a crisis that directly affects your buildings, wherever they may be.

Last year alone, three international conferences addressed the problem. A recent Scientific American article reported: "On an annual basis, rain and snow over large regions of the world are now from five to 30 times more acid than unpolluted rain. The rain of individual storms can be from several hundred to several thousand times more acid than expected."

What causes acid rain? Airborne sulfur and nitrogen pollutants (from automobiles, smelters, and power plants, among others), often traveling hundreds of miles before combin-

ing with water vapor to form an acid solution, can fall unpredictably perhaps on your latest building site.



In many areas, fish are already dying from the effects of acid rain.

The end of the noncorrosive building environment.

The fact is, almost every location—rural or urban, commercial as well as industrial—is now subject to everincreasing corrosive attack from acid rain.

Already stone, masonry, automotive finishes, and single-layer metal wall finishes are proving inadequate—in fact, even the timeless beauty of the Taj Mahal in India is beginning to deteriorate. It's for this kind

of world that Robertson created Versacor.

Versacor—beauty that's proven itself in acid rain.

Robertson saw the necessity for a special product to meet the specific problems of metal walls and roofs in Scandinavia, where acid rain had already begun corroding buildings in the 1950s. Versacor was initially tested there and has outperformed every other paint system in over 10 years of exposure.

Now the Versacor multi-layer protective coating system, with its unique epoxy base coat, is available in the U.S. Versacor has been proven superior to competitive finishes in a battery of independent laboratory tests—especially the Kesternich test, an accurate predictor of resistance to actual acid rain

conditions.

Available in flat wall and profiled shapes, Versacor can meet your most demanding aesthetic criteria for all kinds of buildings. And that's essential—because all kinds of buildings now face the long-term challenge of acid rain.

For more information about Versacor, write to H.H. Robertson Company, Department P-12, 400 Holiday Drive, Pittsburgh, PA 15220.





Fine Art & Architecture Books from MIT LE CORBUSIER SKETCHBOOKS

Notes by Francoise de Franclieu edited by the Fondation Le Corbusier and the Architectural History Foundation

"The publication of Le Corbusier's sketchbooks is, perhaps, the most important documentation to date of anything to do with the Modern Movement." -Philip Johnson

"Overwhelming—both as an outstanding scholarly achievement and as a visually and intellectually stimulating compendium of thoughts and notations of Le Corbusier."-Richard Meier

"A unique record of the mental processes of the most influential architect of the twentieth century." - Vincent Scully

"In [Le Corbusier's] Sketchbooks we discover the intimate, personal world of one of the seminal figures of our century." — David Gebhard, The New York Times Magazine

Volume 1, 1914-1948

452 pp. 816 illus., 118 in color Volume 2, 1950-1954

Volume 3, 1954-1957 February 1982 1,096 illus., 220 in color

Volume 4, 1957-1964

500 pp. 1,056 illus., 169 in color May 1982 1,123 illus., 250 in color

Each volume 103/8 x 10, \$125.00



The Spirit of Colors The Art of Karl Gerstner

by Karl Gerstner Foreword by Grace Glueck

Since Vassily Kandinsky and Johannes Itten, no artist in the European tradition has come to terms so intensively, in both his writings and visual studies, with the subject of color as the noted Swiss artist and graphic designer Karl Gerstner.

"Karl Gerstner is a man possessed by color. . . . And with an artist's gift for exposition, he is able to convey his findings to us through color structures so clearly orchestrated that on seeing them, we can virtually catch color in the very act of invading our sensual apparatus."

Grace Glueck, Art Critic, The New York Times 230 pp. 140 illus., 70 in color with two foldouts \$39.95



Frank Lloyd Wright's Hanna House The Clients' Report

by Paul R. and Jean S. Hanna

"Imagine commissioning Wright to design and build a house, one opening onto nature, ideal for privacy and family gatherings alike. Imagine specifying the brick for the living-room fireplace.

"Imagine haggling over an initial \$20,000 price tag for this magnificent dwelling, the first ever to incorporate the architect's innovative new hexagonal modular system. Commissioned in 1935, the Hanna Honeycomb House in the San Francisco bay area stands as a prime example of Wright's naturalistic style. This simply written, unpretentious log of the house's construction, interwoven with letters, memos and telegrams, is a warm human story and a modern housebuyer's escapist dream."-Publishers Weekly

An Architectural History Foundation/MIT Press publication. 168 pp. 125 b & w illus., 12 pp. in color \$25.00



Richard Morris Hunt

by Paul R. Baker

"This excellent architectural biography is a well-produced book with an elaborate format. The story of the 19th century architect who achieved his greatest renown as architect to the Vanderbilts is told with sympathy, but without illusions." - Paul Goldberger, The New York Times Book Review

"An excellent biography . . . a book I recommend to those whose interest in American architecture is more than just casual."

-Russell Lynes, Architectural Digest 736 pp. 125 illus. \$39.95

Write for our complete art and architecture catalog.

The MIT Press

28 Carleton Street, Cambridge, MA 02142

Circle No. 337 on Reader Service Card









The right place at the right time. Marquesa Lana knows its place.

In some places, carpet has to be really special. That's what carpets made of Marquesa® Lana olefin yarns are all about.

In hospitals, for example, carpets have to take hard wear, both from foot traffic and rolling equipment. Stain-resistance and easy cleanability are extremely important. And with today's technology, static electricity around sensitive equipment must be kept to a minimum.

Fortunately, Marquesa Lana came along at just the right time. These remarkable fourth-generation yarns are bulked and texturized for the look and feel of a luxury spun yarn – but they're tough and durable. They're moisture-resistant and undaunted even by harsh chemicals, with the color locked into the yarn itself. And they have the lowest static generation of any carpet yarn on the market – no anti-static treatment required.

The right place for Marquesa Lana is any floor that has special requirements. The right time is now. For more information, just write or call.



Amoco Fabrics Company Fibers & Yarn Division 550 Interstate North Pkwy

Atlanta, Georgia 30099 (404) 955-0935

Marquésa Lana

No Tougher Yarn. No Better Price.

Amoco Fabrics Company makes fibers and yarns, not finished carpet.

Shown here: Hospital in central Florida. Carpet shown made of Marquesa Lana olefin yarns.

Circle No. 307 on Reader Service Card

OFFICE PLAZA AT INVERNESS, ENGLEWOOD, CO Building Owner: Turnmar Development Co., Englewood, CO Architect: Arthur Casselman Ranes, A.I.A., Englewood, CO





BUNNELL INDUSTRIAL COMPLEX, SAN LUIS OBISPO, CA Building Owner: Bunnell Construction Co., San Luis Obispo, CA Architect: Ross, Levin & MacIntyre, San Luis Obispo, CA



SHERWOOD INDUSTRIAL PARK, PASO ROBLES, CA Building Owner: Advance Adapters, Paso Robles, CA Architect: Richard Bialosky, A.I.A., Santa Barbara, CA



PARKLAND INDUSTRIAL PARK, MILWAUKEE, WI Building Owner: Koller Manufacturing Co., Milwaukee, WI Architect: Birch, Grisa, Phillips, Inc., Brookfield, WI

Today's steel building systems give you design flexibility, economy, and on-time construction.

With modern steel building systems, architects needn't give up design flexibility to get economy and ontime construction. On the contrary. A glance at these handsome buildings proves it.

Note the design creativity. And the variety of attractive exterior materials used.

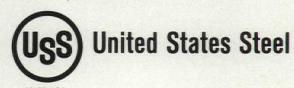
Steel building systems help keep costs under control. On-site labor is reduced by in-plant technology and fabrication. Construction schedules can be more dependable. due to timely delivery and speedy erection of components. Overall cost predictability is possible because of precise estimates on materials and installation.

Maintenance costs are lower with steel building systems. And,

you can design for energy efficiency to help keep costs low.

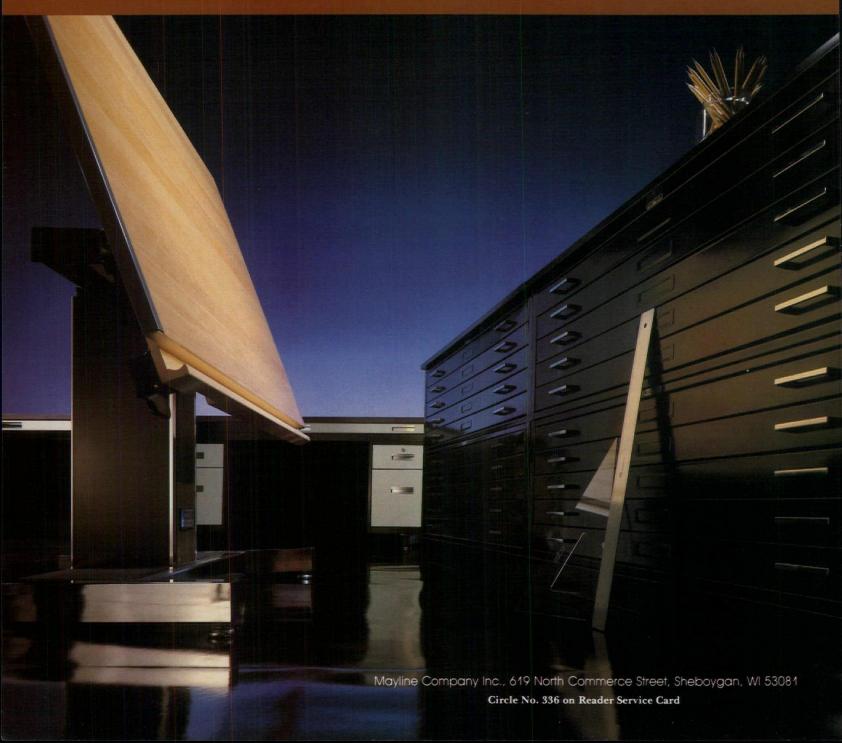
With all these tangible advantages, it's easy to see why, in recent years, nearly half of all building contracts for one- and two-story structures up to 150,000 square feet have been for pre-engineered steel buildings.

Steel building manufacturers and their local dealers are well aware of your aesthetic standards and want to work with you in achieving them. You'll quickly discover their ability to provide engineering assistance, realistic pricing and delivery information.



ASK FOR AMERICA'S FINEST DRAFTING ROOM FURNITURE AND EQUIPMENT BY NAME...

MAYLINE



Seven sins of specifying-Part II

Walter Rosenfeld

Some additional practices to avoid when preparing the project manual. Ignoring these caveats generally leads to trouble. Last month, Specifications Clinic discussed four "sins" specifiers might commit and advised against them. Sin No. 1: Misdirecting instructions: Good information in the wrong place may be no good at all; Sin No. 2: Cold copying: Transcribing text without studying its contents may raise as many questions as it answers; Sin No. 3: Pinpointing: Locating items too precisely may trap the specifier when change occurs; and Sin No. 4: Potpourri: With all sections different in format and conditions, coordination is elusive and confusion likely. This month, a look at some more sins of specifying.

Sin No. 5: Puzzle making: Specifiers sometimes amuse each other by citing passages they've come across in (other writers') project manuals. Aside from finding hilarious typographical errors (now alas far fewer with automated document production), a favorite pastime is reading aloud a paragraph that no one can understand, often followed by the comment, "I wonder what they actually built." Surely one of the greatest sins of specifying is writing something incomprehensible to the likely reader.

The questions "What does this mean?" or "What do they want me to do?" signal the specifier's failure to communicate his intention. The CSI Manual of Practice provides a good review of some basic principles of clear writing in MP-1-10, which should be followed. When using established text, word changes carefully. When preparing new text, ask someone else to read it over for verification that it means to others what it means to

Fancy rhetoric, elaborate phrase-making, long and awkward sentences have no place in this practical, legal document, the project manual. Use simple declarative and imperative statements. Write less rather than more. Don't abbreviate. Don't repeat. Finish what you start. Set things up in a logical sequence so that there is a path for the reader to follow. Use standard technical and trade language, but not slang (it may turn out to be ambiguous or unclear when they read it in court). And if you haven't seen the process you're describing, try to find someone who has written it up from eyewitness familiarity.

Sin No. 6: Fiction writing: Of course it's possible to write clearly and still be in trouble if you're specifying something you can't have or can't get. You can't have concrete cast to watchmaker's tolerances on your building. You can't pick and choose features from different manufacturers' window products and specify them all in one unit unless you are willing to accept the great cost of a custom product—if indeed it can be manufactured at all.

Since specified products are purchased in an ever-changing marketplace, the specifier has to know what is available and what is possible in that marketplace in order to do his work properly. He needs to know the costs of what he specifies as well as the owner's reasonable budget for the building. He needs to know how products are designed, manufactured, and fabricated and must specify realistically within the limits of each trade. His judgment and advice in these areas are valuable to the architect in making materials decisions, but they must be based on economic and production realities.

Someone has to find, price, buy, fabricate, ship, and install everything specified. If any of these steps can't be accomplished, the building process may be interrupted; and the burden of that interruption may fall on the specifier or his ultimate client, the owner.

Sin No. 7: Taking over: When preparing the project manual, keep in mind the separate roles of the architect and the contractor under the standard form of agreement (AIA A101 or A111) and the general conditions of the contract (AIA A201). Under A201 article 4.3.1, the contractor (not the architect) is responsible for the conduct of the work. There are times when the architect is tempted to tell the contractor how to do things that are (or should be) the contractor's responsibility: forms of fire protection during construction; how to erect staging or scaffolding, and the like. Such temptation should be resisted.

Design of the building to comply with OSHA and other legal requirements is the architect's duty. Seeing that the job site complies is the contractor's. Specifying the safety result you want to obtain is generally proper. Specifying the method by which the contractor is to achieve the result may not be wise: "Comply with applicable Occupational Safety and Health Administration requirements," yes; "Build guard rails around all openings 2'-6" high with posts 3'-0" on centers" is risky, even where technically correct.

If the architect assumes (by so specifying) responsibilities that under the contract belong to others, he may not only be liable for unfavorable results, but may even find that his insurance doesn't protect him in some cases. Don't take over the contractor's work; there's enough for the architect to do in his own role.

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



Making a complete line of stainless steel grab bars is a TSM specialty! In addition, we've earned an enviable reputation during the past fifteen years for providing our customers with quality products and MORE*. Including:

* BEST SOURCE FOR GRAB BAR CODE REQUIREMENTS

Call us on our toll-free telephone between 7:00 AM and 5:00 PM PST for product or code information. A comprehensive regulations library manned by a TSM team of code specialists is available to assist you with barrier-free accessibility requirements.

* FREE, PRODUCT AND CODE REFERENCE LITERATURE

TSM's product catalog describes available grab bar styles including tube sizes, flanges, colors, recommended installations and finishes — including TSM's anti-slip coating.

ANSI Standards Booklet — an easy-to-read interpretation by TSM. TSM Grab Bar Guide to the 50 States.

TSM's Product Design Institute.

* COMPLETE LINE, CUSTOM FABRICATION We're the Grab Bar People! If you don't find what you need in our catalog, we'll make it for you — even in colors!

* ON-TIME DELIVERY

Tubular Specialties maintains one of the nation's most complete facilities for fabricating stainless steel tubing for grab bars...your assurance for reliable delivery schedules.

Call or write us to learn how TSM's MORE* can help you with grab bar specifications.



TUBULAR SPECIALTIES MFG., INC.

Dept. 12, P.O. Box 60262 TA, Los Angeles, Calif. 90060 213/515-4801 · Toll-free outside of Calif.: 800/421-2961







Circle No. 349 on Reader Service Card

Right again?

Books



From Bauhaus to Our House, by Tom Wolfe. New York, Farrar, Straus & Giroux, 1981. 143 pp., illus., \$10.95.

It should come as no surprise that Tom Wolfe's short little book (most of which had already been published in the June and July 1981 issues of Harper's) should cause such a stir in the architectural world. After all, ever since Robert Venturi's seminal work Complexity and Contradiction in Architecture (1966), there has been a steady flow, recently reaching flood levels, of increasingly simplistic books focusing on the failures of Modern architecture. Wolfe's book, however, is the first to be written by someone who is neither an architect nor a practicing architectural critic, but a popular writer. At last the general public has gotten the Word: Modern architecture is dead!

Unfortunately, that is not really the point of From Bauhaus to Our House. One cannot imagine that Wolfe could care less about architecture, or what the public thinks of it. What he seems to care about is that great play called American Life, and he views the current architectural "scene" as just that—a scene from that "play." Armed with a Ph.D. in American Studies from Yale, Wolfe believes he has the perspective, and the intellectual detachment, to analyze any and every scene that unfolds before him. Then, with the glib, rapid-fire, disarmingly brazen delivery for which he is famous, he shows us how we have been hoodwinked into buying something we never wanted in the first place. Furthermore, he needs to make us understand that what we are buying is fundamentally un-American.

Although Wolfe's premise does not reek of the hysteria of the McCarthy era, one cannot but be reminded of Elizabeth Gordon's editorials in House Beautiful of that time. "Either we choose the architecture that will encourage the development of individualism," Gordon wrote in October 1953, "or we choose the architecture and design of collectivism and totalitarian control. We believe that the International Style is the style of the latter; that, whether some of the people who practice it know it or not, it is the Procrustean bed of collectivism, conditioning people for total control." Wolfe's observation that the Bauhaus was not merely a school, but "a commune, a spiritual movement, a radical approach to art in all its forms, a philosophical center comparable to the Garden of Epicurus," even uses a similar reference to Ancient Greece to make his point.

And so, as keepers of the flame of Americanism, Wolfe picks the true individualists: Eero Saarinen, Edward Durell Stone, Bruce Goff, Herb Greene, John Portman, and, of course, Frank Lloyd Wright—whose article "For a Democratic Architecture" accompanied Elizabeth Gordon's in House Beautiful. Wolfe admits, though, that "Stone and Saarinen, like [Books continued on page 108]

Total system efficiency. Get it with gas heating/cooling.

For space conditioning—whether in a giant structure or the smallest commercial building—it pays to look into the advantages of clean gas energy.

Gas is efficient, economical energy. And new energy-saving equipment makes it even more efficient. Modern integrated heating/cooling systems fueled by gas can provide the operating economies and reliability today's business demands.

And America's large underground gas supplies and potential new sources will mean continued supplies of efficient gas energy in the future.



Williams Center Forum, Tulsa, Oklahoma.



Leading architects choose the leading projection screen

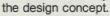
Designers of the Harvard University Science Center, the Gulf Oil Building in Pittsburgh, the National Bank of Detroit's Renaissance Center offices and the Wisconsin Telephone Company headquarters all have one thing in common. They specified Da-Lite projection screens.

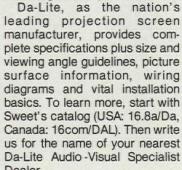
For visual impact...from convention centers to the most elaborate computer age audio visual facility...Da-Lite produces

screens in all formats and sizes.

Da-Lite's automatic electric Electrol® screens, recessed in the ceiling and operated by remote control, lower and raise unobtrusively to set the stage for a professional presentation. Built-in rear projection and manual wall and ceiling screens offer

additional versatility in perfecting





DA-LITE

Da-Lite Screen Company, Inc. Warsaw, Indiana 46580 Phone: 219/267-8101

Slide and movie screens since 1909

Circle No. 315 on Reader Service Card

Frank Lloyd Wright, Goff, and Greene, were too American, which meant both too parochial (not part of the International Style) and too bourgeois. Somehow they actually catered to the Hog-stomping Baroque exuberance of American civilization." One might ask, "what of Charles Moore?" Moore, after all, is not only very American (born and raised in Michigan, no less), but his work has certainly embraced the "Baroque exuberance of American civilization," if not downright wallowed in it. Furthermore, not only has he publicly denounced the International Style, his work has often been attacked for being "kitsch," and for representing-White Gods forbid-American popular culture. Shouldn't that make him important in Wolfe's eyes?

Ah, but Charles Moore did something that is even more un-American than practicing the International Style. He joined the compound. First as Chairman of the Department of Architecture at Berkeley, then as Dean of the School of Architecture at Yale, and finally as a professor at UCLA, Moore has, for the past two decades, devoted himself to teaching as well as to a prolific practice. Unlike Saarinen, or Stone, or Wright, he has held positions of power and respect inside the compound. It is not his architecture, nor his philosophy, but

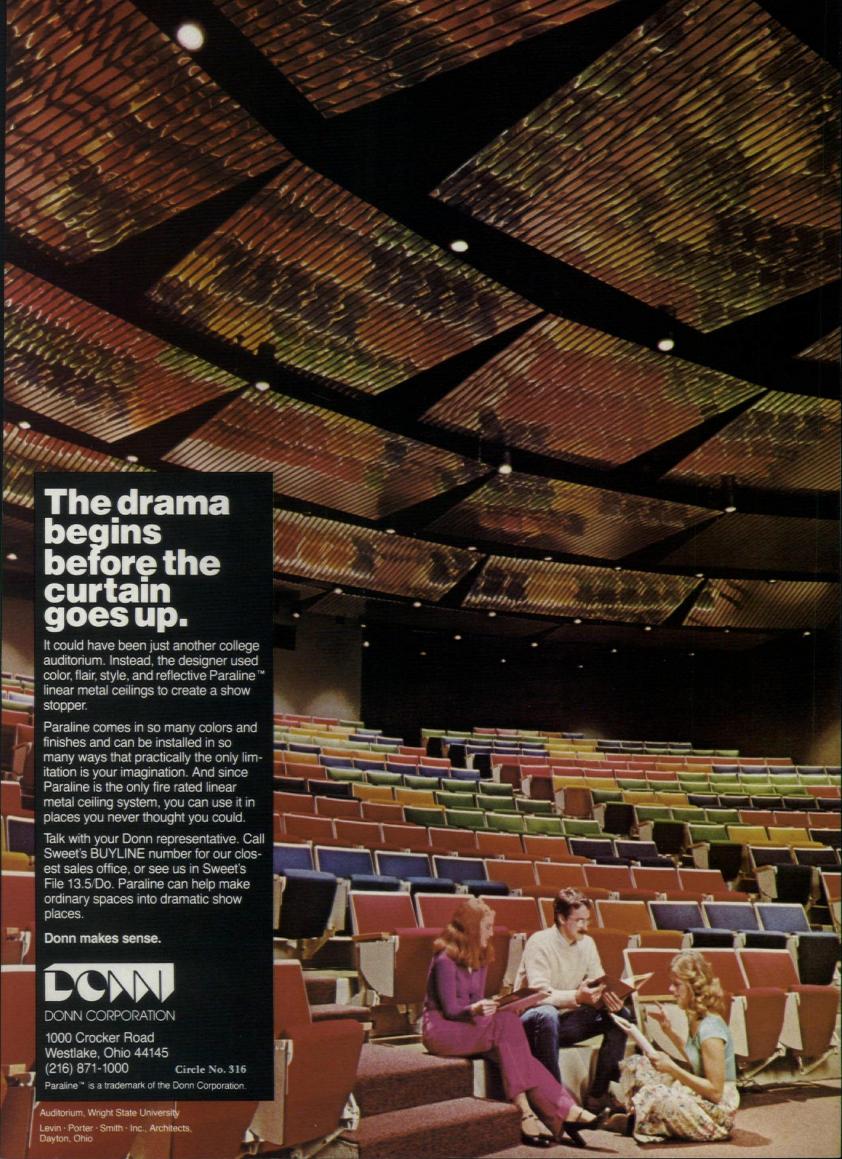
his position that Wolfe seems to find loathsome.

It is the social scene, not the buildings, that Wolfe understands. His detachment from his subject matter is so complete that he rejects those who could be his allies on the basis of their positions. Little does Wolfe realize that Eero Saarinen left his beloved Bloomfield Hills for New Haven not only to be closer to the center of [media] power, but because his friend and patron Whitney Griswold, the late president of Yale, was wooing him for the position of Dean of the School of Architecture (there is documentation of this in the Saarinen archives at Yale, which was brought to my attention by my colleague John Hall, who acted as the first archivist of the collection, in 1975). Where would Saarinen be, in Wolfe's mind, had he lived to accept that position?

As for Wright, Wolfe asserts that, "Within the university compounds there was no way for an architect to gain prestige through an architecture that was wholly unique or specifically American in spirit. Not even Wright could do it-not even Wright with the most prodigious outpouring of work in the history of American architecture." One wonders how Wolfe could have been a student of American Studies at Yale without coming across the young Vincent Scully, whose passion was not only Wright, but the heroes of Wright-Richardson, Sullivan, Price—the creators of the first truly American architectural tradition. That Wolfe, as a student of American Studies at Yale, could have ignored Scully's greatest contribution—the discovery and naming of the first identifiable American architectural style, the Shingle Styleshould be grounds for revoking his Ph.D. and all the rights and privileges thereto appertaining.

Detached as he is (as he believes a critic ultimately must be), Wolfe still lacks the one quality that is absolutely necessary for an architectural critic-the ability to see. He is obviously an avid reader and a good listener, and one cannot take away from him his ability to re-tell what he has heard with flash and panache. If he wasn't listening to Scully or Moore, it is indeed a shame, because he ultimately lost two of the most fervent supporters of American architecture and individualism inside or outside the compound. But his utter inability to see is what totally vitiates Wolfe's attempt to bring the Truth about Mod-

ern architecture to the American public. Take, for example, Wolfe's perceptions of John Hejduk's renovation of the Cooper Union Foundation Building in New York. "I saw it for the first time when I attended the Cooper Union commencement exercises in 1980. I could barely concentrate on the event at hand. Cooper Union had been designated a landmark building, so that Hejduk had not been able to touch the exterior . . . [but] inside the old masonry shell, at enormous expense, Hejduk had blown up Corbu's little Villa Savoye like a balloon. The white walls, the ramps, the pipe railings, the cylinders. . . . It was all quite bizarre. And why had he done it? Because, being a true compound architect, a true White, a true Neo-Purist, he could do nothing else. [The [Books continued on page 110]







Circle No. 351 on Reader Service Card

original architect, Fred A.] Petersen had designed huge windows along the stairways. The idea was to illuminate them as much as possible by sunlight. But this meant that anyone walking down the stairs could look out and see big chunks of Petersen's damnable brown bourgeois masonry. So Hejduk meticulously enclosed the stairs in white Corbu cylinders, converting them into stairwells." The July 1975 issue of P/A explains the rationale of the renovation, which Wolfe could easily have discovered had he so desired. P/A says, "What was a maze of dingy and unsafe, poorly lit rooms and dark passages. . . . [are now] big, clean spaces the school is once again as capable of adapting to different uses and changing space configurations as it was originally. In addition, the building has been brought up to current fire-code regulations (which was the impetus for the renovation), and a national landmark has been preserved for future generations." Perhaps Dr. Wolfe didn't realize-or care-that enclosing the stairs was necessary to bring the building into compliance with code regulations. But what of the inference that the building is no longer blessed with sunlight, lest the awful, decadent masonry of the exterior be glimpsed along with it? P/A saw a building "transformed into light-filled spaces of breathtaking clarity and purity." I have visited the building on numerous occasions, and I would have to say that what P/A saw certainly rings truer to me than what Wolfe says he saw. The layman for whom Wolfe is writing may have no keener an eye for architecture than he does, but that only weakens Wolfe's position; how can he criticize, with any authority, that which he cannot see?

But in the final analysis, it is Wolfe's recklessness that makes From Bauhaus to Our House not merely inept and inaccurate, but unacceptable. Whether or not the late Louis I. Kahn was a great American architect in (as Scully would have it) the tradition of Jefferson, Richardson, and Wright, he was a man who struggled throughout his life to reconcile (as Ed Stone announced he had done) "twenty-five hundred years of Western culture" with "twenty-five years of modern architecture." That Kahn had the gift (for that is what it is) to be a great teacher, and therefore a member of the compound, should be celebrated, rather than denounced. Even inside the walls of the compound, Kahn's struggle was a lonely one. And, though in his late years, Kahn achieved the fame he deserved, it did not give him comfort. As Charles Moore wrote in his obituary of Kahn, in the Yale magazine The New Journal (April 22, 1974), "the harassments of fame must have brought him closer to despair than even his failing vision." Wolfe, dapper gentleman that he is, describes Kahn for us: "He was short. He had wispy reddish-white hair that stuck out this way and that. His face was badly scarred as the result of a childhood accident. He wore wrinkled shirts and black suits. The backs of his sleeves were shiny. He always had a little cigar of unfortunate hue in his mouth. His tie was always loose. He was nearsighted, and in the classrooms where he served as visiting critic, you would see Kahn holding some student's yard-long blueprint three inches from his face and moving his head over it like a scanner." Wolfe says Kahn's "shambles" explain why, in the end, he was able to intimidate clients into buying what they didn't want in the first place. "His unlikely physical appearance only made these moments more striking. The visionary passion of the man was irresistible. Everyone was wiped out." That may well have been the case. But those closest to Kahn knew, as Moore pointed out, that his eyesight was always a matter for concern. And if it is to be considered one of the devices for intimidation, on this point, Wolfe has gone too far.

If one is reminded by From Bauhaus to Our House of the McCarthy era ravings of Elizabeth Gordon, one also cannot forget the courage of the late Joseph Welch, counsel for the U.S. Army, who stood up to the Senator's "reckless cruelty." One must ask Tom Wolfe, as Welch asked McCarthy, "Have you no sense of decency, sir, at long last? Have you left no sense of decency?" And one could conclude, as Welch did, "If it were in my power to forgive you for your reckless cruelty, I will do so. I like to think I am a gentleman, but your forgiveness will have to come from someone other than me."

[David A. Greenspan]

This relatively simple but superbly designed bank is a striking example of the manner in which Terne roofing can become an integral part of a total architectural concept.

Aesthetics aside however, Terne also has certain outstanding functional characteristics. Among these are great tensile strength combined with light weight and a low coefficient of expansion; exceptional resistance to corrosive attack, and a durability measured in generations rather than years.

Terne roofs are also relatively inexpensive when judged by the standards of those to whom ultimate performance is no less significant than initial cost.

Citizens' Bank, N.A., Readington Township, New Jersey Finne · Lyman · Finne · Reese, Architects-Engineers, Elizabeth, New York Roofer: J. Strober and Sons, Ringoes, New Jersey Photographs by Otto Baitz

FOLLANSBEE

FOLLANSBEE STEEL CORPORATION • FOLLANSBEE, WEST VIRGINIA

Call us toll-free 800-624-6906









WHAT PRICE FORM, COLOR, FUNCTION?

Products and literature

Products



A conference/club chair has been added to the Pettit Ply Collection. Frames are oak veneer on molded plywood, seats and backs are upholstered, and there are urethane-filled arm inserts. The Pettit Ply group includes side and arm chairs. (The illustration provided with the description of this chair in the Designer's Saturday section of September P/A was incorrect.) Thonet.

Circle 100 on reader service card

Chairs and stools in the 2000 series combine bases of 16-gauge steel, ure-thane tread casters that roll easily on carpet or hard floors, and height adjustment. Seat and backrest are of curved, molded plywood with urethane foam seats; tilt and swivel models are available. Coverings are offered in four fabric grades in 40 colors and three vinyl grades in 22 colors. Samsonite Contract Furniture.

Circle 101 on reader service card

Wood office furniture, designed by Frederick Poisson, is made from red oak veneers and solids with splined joints and solid wood edges. Double bullnose edges are fully radiused. Finishes of natural, walnut, dark oak, autumn oak, or fruitwood resist water, alcohol, and most common solvents. The group includes desks, credenzas, files, tables, planters, and waste receptacles. Halcon

Circle 102 on reader service card

Martin Stoll Kollektion/S consists of seating for all office jobs. Designed in two parts, the chair provides support for the user whether in an upright position or leaning back. There are styles suitable for keyboard work, executive models, conference and guest chairs. They have five-prong bases, with or without casters, legs, or sled bases and there are both arm and armless designs. Upholstery is offered in a wide range of colors. Harter Corp.

Circle 103 on reader service card

Custom designs in stainless steel, aluminum, and chromium are available from Pace Architectural. Included are railings, doors, dividers, display cases, cabinets, desks, and similar products. The Pace Collection, Inc.

Circle 104 on reader service card

Group 900 acoustical panels come in 26 sizes and over 21 fabric colors. Series 986 provides greatest privacy; Series 960 is for less demanding areas. Panels can be assembled easily in 2-, 3-, or 4-way intersections without the need for tools. Straight panels in sizes from 30 in. to 72 in. can be installed either horizontally or vertically. Curved panels, 60 in. wide, are 48, 60, and 72 in. high. Conwed, Interior Products Group. Circle 105 on reader service card

Furrows wallcarpeting is acoustically absorbent 100 percent Trevira polyester. It is flame-retardant and has a Class A flamespread rating. The vertically ribbed wallcovering is 54 in. wide and comes in a choice of 16 colors. Backing is flame-retardant acrylic. Knoll International.

Circle 106 on reader service card

Mexican terra cotta flooring tiles, ranging in color from deep brown tones to buffs and light pinks, are available in a variety of shapes. Suitable for commercial and residential use, the tiles are protected by Hastelite® sealer, which provides a finish that will stand up to foot traffic. The tiles are approximately ¾-in. thick in sizes 4" x 4", 4" x 8", 8" x 8", 12" x 12", 8" hexagons, and 8" squares surrounded with pickets. Hastings Tile. Circle 107 on reader service card



FS Series office seating, designed by Klaus Franck and Werner Sauer, consists of 11 models in three groups: high back, manager, and operator chairs, with or without arms. The chairs are designed to accommodate changes in body position while providing comfortable support. (The illustration provided with the description of this chair in the Designer's Saturday section of September P/A was incorrect.) Vecta Contract. Circle 108 on reader service card

The 'Strictly Private' door release controls interior doors by means of a hidden pushbutton. Working in conjunction with a surface-mounted or floor-type door closer mechanism, it uses a door-wall magnet assembly and is powered from a standard wall outlet. Model 961 comes complete with a brushed steel door closer. Model 960 is the door release device only, for doors already equipped with closers. Rixson-Firemark.

Circle 109 on reader service card

Solid brass faucets and tub/shower assemblies in a satin finish are top-of-the-line additions by Moen. They feature the company's one-piece cartridge design. Tub/shower unit has a massaging showerhead and brass diverter spout and is also available with Moentrol pressure-balancing shower faucet. Moen, Div. of Stanadyne.

Circle 110 on reader service card [Products continued on page 114]

YOU'LL FIND GLIDDLIG PLACES. IN THE MOST EXCITING PLACES.



A wide variety of GLID-GUARD® and ULTRA-HIDE® fade resistant colors accent the high-tech interior of Tampa's new Museum of Science and Industry. The innovative, awardwinning structure demonstrates energy conservation techniques to more than 300,000 visitors

GLIDDEN HAS COATINGS TO PROTECT AND and students annually. DECORATE A WORLD OF ENVIRONMENTS.

Silicones, epoxies, vinyls, alkyds, latexes, urethanes, bituminous coatings and mastics. Come to Glidden one-stop Pro-Shops for coatings that give you long lasting protection. Look for us in Sweet's, or call John Ellis in Cleveland at 216/344-8207. You'll get the complete technical service backup you need for perfect performance.



WHEN YOU MAKE A VERY GOOD PAINT, IT SHOWS.

Circle No. 324 on Reader Service Card







The Silhouette landscape group consists of planters, seating, litter receptacles, and ash urns. Constructed with edges and corners cut to a large radius, the group is finished in red oak. A fiberglass lining is permanently bonded to the wood shell for strength and watertightness. Landscape Forms, Inc. Circle 111 on reader service card

Format planning grids, in a 1/16-in. pattern, help those who specify signs to plan and size sign messages. Planning grids are printed on stock that is compatible with transfer lettering. When the format is reproduced, the grid disappears. APCO Graphics, Inc. Circle 112 on reader service card

Architectural grids, a set of 16 grids, consist of eight exterior perspectives, four interior perspectives, three planview/elevations, and one paraline. For drawings by architects, interior designers, draftsmen, and builders, the 16 grids are printed back-to-back on eight sheets of 17" x 22" heavy index paper. Kleidon & Associates.

Circle 113 on reader service card

Airfloor is a hollow concrete floor storage and distribution system for heating in the winter and cooling in the summer. It combines solar storage, air distribution, ventilation, and radiant heating and cooling. In the winter, warm air is collected by greenhouse or other air or roof collector during the day for distribution to all areas. In the summer, cool night air is collected for release during the day. Airfloor Systems, Inc. Circle 114 on reader service card

Ferrox nonslip safety coating is formulated with thousands of abrasive particles for traction. Available in a variety of colors, the coating can be applied with roller or trowel in minutes and dries within hours. Developed for use on aircraft carriers, it is suitable for entrances, stairways, pool areas, commercial kitchens, and other potentially slippery areas to minimize the risk of falls. Martex Safety Products. Circle 115 on reader service card

Certaflex insulated flexible air duct has a Punchline tab and hanging cord built into the standing seam. Instead of using grommets, the installer places duct tape over the standing seam where a hanger is needed, punches a hole in it, and inserts the hanging wire. Cord and tape distribute the weight so there is no tearing. Duct diameter is 4-10 in. in 1-in. increments, and 12-18 in. in 2-in. increments. Lengths are 7 ft and 25 ft. CertainTeed Corp., Insulation Group. Circle 116 on reader service card

The Parabolite parabolic fluorescent troffer, with an overall depth of only 5 in., allows installation in shallow plenums. The assemblies are available in standard sizes and cell configurations. Lighter weight than deep fixtures, they can be installed easily by one person. According to the manufacturer, lighting efficiency up to 74 percent is possible depending on size and cell configuration. The Miller Co., Lighting Div. Circle 117 on reader service card

PermaBrick acrylic-impregnated brick resists water and staining and is freezethaw stable. Suitable for indoor or outdoor applications, it is slip-resistant and fireproof. The bricks are 5/16-in. thick and come in a variety of red, brown, and tan earthtones. Areas of application include malls, restaurants, and offices, as well as residential living rooms, dining rooms, patios, and foyers. PermaGrain Products, Inc.

Circle 118 on reader service card

The Color Grid integrated color system of laminates consists of 72 colors arranged in 36 chromatics and 36 neutrals. The colors are graded by hue and value in logical progression from dark to light and warm to cool to simplify interior color selection. The line is offered in a new matte finish, as well as a universal grade. Formica Corporation, Subs. of American Cyanamid Co.

Circle 119 on reader service card

Oak parquet flooring with four different finishes comes 12 in. square, made up of 6-in.-square tiles. Backing is foam, wood, or foam with factory-applied adhesive. Foam backing acts as both sound-deadener and moisture barrier. Finishes include acrylic impregnated for heavy commercial use; low-gloss sealer for light commercial use; textured and sealed and polyurethane finished for residential use. Tapered tongues and grooves make installation relatively easy. Hartco, Tibbals Flooring Co.

Circle 120 on reader service card

Identifone® is a visitor entry phone system for condominium, apartment, and townhouse buildings of 15 units or more. The microprocessor-based unit consists of the visitor panel and a small computer. It requires no hard wiring, but has its own dedicated telephone line and uses existing telephones in the living units. Models are available to handle up to 1000 apartments and one to ten separate entrances. Digital Instruments. Circle 121 on reader service card

Literature



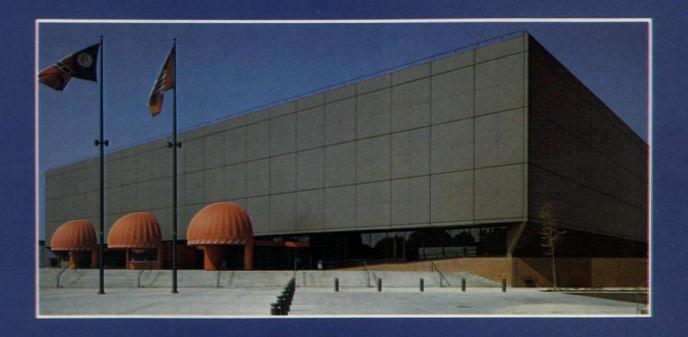
American Victorian lighting reproductions adapted for electricity follow closely the gas fixtures of the latter half of the 19th Century. Six groups include Classical, Rococo, Colonial, Art Nouveau, Arts & Crafts, and Street Lamps. Glass shades accurately duplicate originals of the period. Wall lights and ceiling-mounted lights have been adapted from the chandelier designs. A 16-page catalog illustrates the designs in color in appropriate settings. Progress Lighting, Subs. of Kidde, Inc. Circle 200 on reader service card

'Prescolite Lite Controls' discusses preengineered units for controlling simple to complex lighting installations easily and economically. There are six panels designed to control different room layouts, functions, lighting situations, or operator requirements. They are self-explanatory, enabling inexperienced operators to manage them. The 40-page brochure explains the function of each type and includes technical information and a specifications worksheet. Prescolite, Div. of U.S. Industries. Circle 201 on reader service card

Front finishes for kitchen and bathroom cabinets are illustrated in color in an 18-page pamphlet. In addition to showing the variety of woods, laminates, and wood weaves available, the cabinets are shown in typical custom-designed installations. Poggenpohl USA Corp. Circle 202 on reader service card

'Bonded bronze doors' brochure describes and illustrates several doors constructed of bonded bronze castings laminated to both sides of a solid wood core. Some styles are also available in bonded aluminum, bonded copper, and bonded nickel silver. Detail drawings show construction, and specifications are provided in the eight-page brochure. Forms & Surfaces.

Circle 203 on reader service card [Literature continued on page 122]



UNPLAIN GEOMETRY

The solution for the Augusta Richmond County Civic Center was Alcoa Alply panels.

Architect: I. M. Pei and Partners.
Wall Panei Distributor: Whelan Manufacturing Co. — Trenton, N.J.

The Stolle Corporation
A Subsidiary of Aluminum Company of America

Circle No. 347 on Reader Service Card





EXTRA EDIT

Article Robert A. M. Stern Michael Sorkin Suzanne Stephens

336 Pages (incl 98 color pages) Price: ¥5,000+¥1,500 (seamail postage)

Published by A+U Publishing Co., Ltd., Tokyo, Japan

There can be no doubt. American architecture today is in a state of transformation. The changes that are taking place go deeper than the construction of the AT & T Building in New York or the junglelike house in Santa Monica. The transformation is quietly, but steadily and definitely occurring in the deepest levels of the architects' own awareness. Right now, American architecture is being forced to face challenges arising from crises within contemporary society.

This extra edition of A+U presents a nationwide picture of the ways American architects are reacting to their current situation. It attempts to trace the sources of architecture as it is today in the United States. In addition, it offers forecasts for future thematic developments and historical and geographical perspectives on the kinds of personnel resources available to American architecture. In other words, this extra edition offers the reader a history of American architecture of the recent past and a timely, accurate interpretation of the challenges and changes that architecture faces now.

Please send your order or direct to us!

AGENTS IN THE U.S.A. & CANADA

TORONTO M5R 1G2

NEW YORK N.Y. 10012 NEW YORK N.Y. 10019 PHILADELPHIA PA. 19103 to our agents CHICAGO ILL. 60605 LOS ANGELES CA. 90064 SAN FRANCISCO CA. 94133

Jaap Rietman 157 Spring Street Tel.: 966-7044

Rizzoli International 712 Fifth Avenue Tel.: (212) 397-3700

Joseph Fox Bookshop 1724 Sansom Street
Prairie Avenue Bookshop 711 S. Dearborn Street Tel.: (312) 922-8311

Hennessey & Ingalls 10814 W. Pico Blvd. Tel.: (213) 474-2541

William Stout 17 Osgood Place Tel.: (415) 391-6757 Ballenford Architectural Books 98 Scollard Street

31-2, Yushima 2-chome, Bunkyo-ku, Tokyo, 113 JAPAN

24 entries out of 1069

architects.

issue.

were selected for recognition by the jury for the 29th annual P/A Awards program. In-

cluded are examples of architectural design, urban design/planning, and applied research. The particulars will remain confidential until

Also in P/A's expanded January issue: a report on the status of past P/A winners; results

of the recent Innovations in Housing competition; a review of "IBA," the West Berlin showcase of projects by the world's leading

Again in 1982, the architectural profession

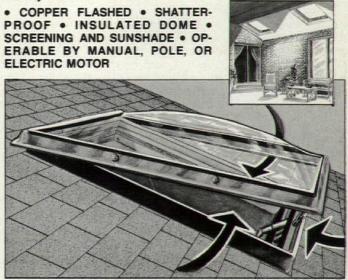
will see in the New Year with the P/A Awards

publication of the January 1982 P/A.



Skylighting is the way to create beautiful light-filled rooms, to add new dimension and greater flexibility to interior and exterior designs.

VENTARAMA SKYLIGHTS OFFER PASSIVE SOLAR HEAT, NATURAL AIR CONDITIONING, and can be used in any climate on any roof.



VENTARAMA® SKYLIGHT CORPORATION

75 Channel Drive, Port Washington, New York 11050 (516) 883-5000

Circle No. 353 on Reader Service Card

Fight the high cost of repetitive drawings... with the STANPAT System.

Since 1943. STANPAT has fought inflation for engineering and architectural firms with the *only* system of appliques that gives you a five year shelf life guarantee!

Use STANPATS for error-proof reproduction of symbols. diagrams, details, title blocks and more. The STANPAT System also includes polyester sheets for making repetitive details by using a plain paper copier and blank sheets for typing notes and legends.

FREE. Our new brochure that shows you how to save time and money with the STANPAT System. FREE SAMPLES, TOO! Send in the coupon today.



366 Main Stree	AT PRODUCTS et. Port Washington, N.Y. 11050 6) 883-8400-8401	
Yes, help us fight new brochure at		etitive drawings. Send
Name Company Address		Title
City	State	Zip

Circle No. 346 on Reader Service Card

Contract furniture catalog offers a variety of chairs, including stacking and folding styles, tables for restaurants and offices, and folding tables. The 54-page catalog has color charts that show vinyl and fabric upholstery materials, frame finishes, and laminated top finishes. Virco Mfg. Corp.

Circle 204 on reader service card

Metallic laminates for walls, fixtures, and furniture use bas-relief and dimensional designs. The copper, brass, and aluminum designs are illustrated in color in an eight-page brochure. Weaves, mosaics, raised dots, and hammered patterns are among those shown. A list of substances and their effect on the laminates is included. Wilsonart, Ralph Wilson Plastics, Inc. Circle 205 on reader service card

Hardwood paneled doors are shown in a four-page brochure entitled "Grand Openings." Illustrations show several panel styles in the Main Street Collection. There are color photos of the woods available: red oak, alder, cherry, and walnut. Specifications are included. Renovation Concepts, Inc. Circle 206 on reader service card

Architectural products brochure covers a variety of entrance doors and door frames, mall-type doors, closers and push-pull handles, and thermal barrier framing. Descriptions and detail drawings are included, along with illustrations and standard specifications. Tubelite®, Div. of Indal.

Circle 207 on reader service card



Sonex acoustical foam to dissipate and absorb noise is described in a 12-page brochure. The product can be used as hanging baffles on movable partitions, affixed to walls, or secured to individual privacy panels on desks. In addition to standard silver, there are several color options achieved with fire-retardant paint. The foam is available in 4' x 4' sheets, 2, 3, or 4 in. thick and in other sizes and forms. Illbruck/usa.

Circle 208 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.

School of Architecture renovation and addition, Rice University, Houston, Tx (p. 53). Architects: James Stirling, Michael Wilford & Associates, London; Ambrose & McEnany, Houston. Concrete foundations. Steel frame. Bar joists: Vulcraft. Metal studs: Metal Arts. Metal deck: McFab. Indiana limestone. Brick: St. Joe. Gypsum board: U.S. Gypsum. Aluminum windows: Ware. Aluminum skylights: EPI. Hollow metal doors: Lockhart. Brick pavers: Cherokee. Vinyl composition tile: Azrock. Rubber flooring: Mondo. Spanish clay tile: Ludowici-Celadon. Waterproofing (epoxidized polyurethane): Tremco. Fiberglass batt insulation: Owens-Corning. Movable partitions: Modernfold. Exterior enamel and interior latex paint: Devoe. Hinges: Stanley. Locksets: Russwin. Door closers: Norton. Push bar exit hardware: Von Duprin. Door stops and plates: Quality. Security CCTV: RCA. Ionization fire detectors: Johnson Controls. Metal lockers: Republic Steel. Theater seating: American Seating. Entrance door system: Krieger Steel. Hydraulic elevators: Westinghouse. Steel stairs and rails: Berger Iron. Lighting: Marco, Wright Light. Electrical distribution: General Electric. Plumbing fixtures: Crane. Flush valves: Sloan. Toilet stalls: Sanymetal. Bathroom accessories: Bobrick. Water fountains: Halsey Taylor. Pumps: Federal. Fan coil and airhandling units: McQuay-Perfex. Air distribution devices: Metal-Aire. Carpet (Zefran acrylic): Stratton. Aluminum mini-blinds: Marathon Carey-McFall. Projection screens: Da-Lite. Projectors: Kodak. Chalkboards: Claridge.

House, Chicago (p. 62). Architect: Krueck & Olsen, Chicago. Concrete: Flexi-core, Carolina Macomber. Plywood sheathing: U.S. Plywood. Windows and doors: Hope's Windows. Glass: PPG. Metal siding: Tuschall Engineering. Cement plaster and gypsum board: U.S. Gypsum. Tile: American Olean. Glass block: Pittsburgh Corning. Plexiglass and aluminum barrel vault: Wasco. Terrazzo: Roman & Michi. Metal suspension grid: Chicago Metallic. Built-up tar and gravel roof: Koppers. Silicone: Dow-Corning, G.E. Fiberglass batts: Owens-Corning Fiberglas. Rigid mineral board: Johns-Manville. Paint: Degraco, Pratt & Lambert. Hardware: Rixson, Sargent. Steel kitchen cabinets: St. Charles Kitchens. Security system: ADT. Lighting: Lightolier. Trim plates: Touch-Plate. Dimmers: Lutron. Plumbing: Kohler, Stella. Gas-fired forced-air system: Carrier. Carpet/rug: Mira-X International, V'Soske. Chairs: Atelier International. Fabric: Knoll.

Stallion Barn Complex, Gainesway Farm, Lexington, Ky (p. 68). Architect: Theodore M. Ceraldi, Nyack, NY. Concrete foundation: Wings Co. Roof planking

and laminated timbers: Koppers. Concrete block and stucco: C.E. Pennington Co. Floor brick and porous asphalt: Old Hickory Brick Co., Lehman-Mead. Clay tile: Ludowici-Celadon. Acrylic skylights: Wasco Products. Cedar doors: Louisville Millwork. Wrought steel: P.A. Fiebiger. Brick paving chips: Franklyn Brick Co. Waterproofing: General Electric. Lighting: Prescolite, Guardian, Emerson Electric, Kidde & Co. Oak cabinets: Louisville Lumber & Millwork. Lunging ring, Gainesway Farm. Concrete foundation: W.T. Congleton Co. Roof structure, ceiling, walls: Laminated Timbers. Acrylic skylights: Pam Hillsdale Industries, Inc. Sheet aluminum roofing: Gifford/Hill.

Tualatin Hills Sports Complex, Beaverton, Or (p. 82). Architect: Broome, Oringdulph, O'Toole, Rudolf & Associates, Portland, Or. Steel wall panels: Inryco, with Duofinish 500. Hollow metal window frames and insulating glass: Grand Metal Products. Translucent skylights: Kalwall Corp. Hollow metal doors: Grand Metal Products. Suspended acoustic tile: Armstrong Second Look. Built-up roof and insulation: Owens-Corning. Movable partitions: Modernfold. Ball bearing hinges: Lawrence Bros. Locksets: "Plymouth" by Schlage. Door closers: LCN. Panic exit hardware: Von Duprin. Plumbing fixtures: American-Standard. Washroom accessories: Bobrick. Flush valves: Sloan. Stalls: Grand Metal Products. Carpet: Stratton. Paint: Rodda Paint Co. Lockers: Republic. Tennis court surface: California Products Corp. Doors: Cookson. Corvallis Aquatic Center, Corvallis, Or (p. 86). Architect: Broome, Oringdulph, O'Toole, Rudolf & Associates, Portland, Or. Steel structure: Salem Metal Fabrication. Steel deck: Inryco. Windows and doors: Kawneer. Skylights: Cemcel Corp. Doors and frames (interior): Grand Metal Products. Asphaltic concrete: Wildish Sand and Gravel. Hinges: Lawrence. Locksets: Schlage. Door closers: LCN. Panic exit hardware: Von Duprin. Door stops: Ives. Thresholds: Pemko. Fire alarm system: Simplex Time Recorder. Lockers: Medart. Bleacher seating: Stadiums Unlimited. Movable pool bulkhead: Paddock Pool Equipment. Grab rails: Mermaid. Deck inserts: Swimquip. Recessed steps/ wall anchors: KDI Paragon. Pool deck drain: D.F.C. Co. Switchgear: GE. Plumbing fixtures: American-Standard. Group showers: Acorn Engineering Co. Stalls: Henry Weis Mfg. Co. Other accessories: Accessory Specialties Inc. Boilers: Weil McLain. Fan units: Trane.

American Honda office, Washington, DC (p. 90). Architects: Spiker/Taylor Architecture, New Haven, Ct. Paint: PPG Industries. Rubber flooring: Flexco. Carpet: Berman. Sisal matting: Larsen Carpets. Lighting: Harry Gitlin, Atelier International, Koch & Lowy. Furniture: Brayton International, Helikon, Intrex, Knoll International, Metropolitan Furniture Corp., Storwall, Thonet. Fabrics: Far Eastern Fabrics, Jack Lenor Larsen. Hardware: Baldwin.

000-110



Wisdom. It's seen in the way Wood-Mode interprets modern style.

Simple lines. Subtle curves. Delicate THE Simple lines. Subtle curves. Delicate shadows. A hint of European influence. But above all, warmth-some-PREVAILING thing all too often missing in contemporary decor.

WISDOM Wisdom. It's found in the way Wood-Mode stresses craftsmanship.

Superior woods. Traditional techniques. Fine detailing. Lustrous, durable finishes. But above all, thoughtful

design that emphasizes efficiency.

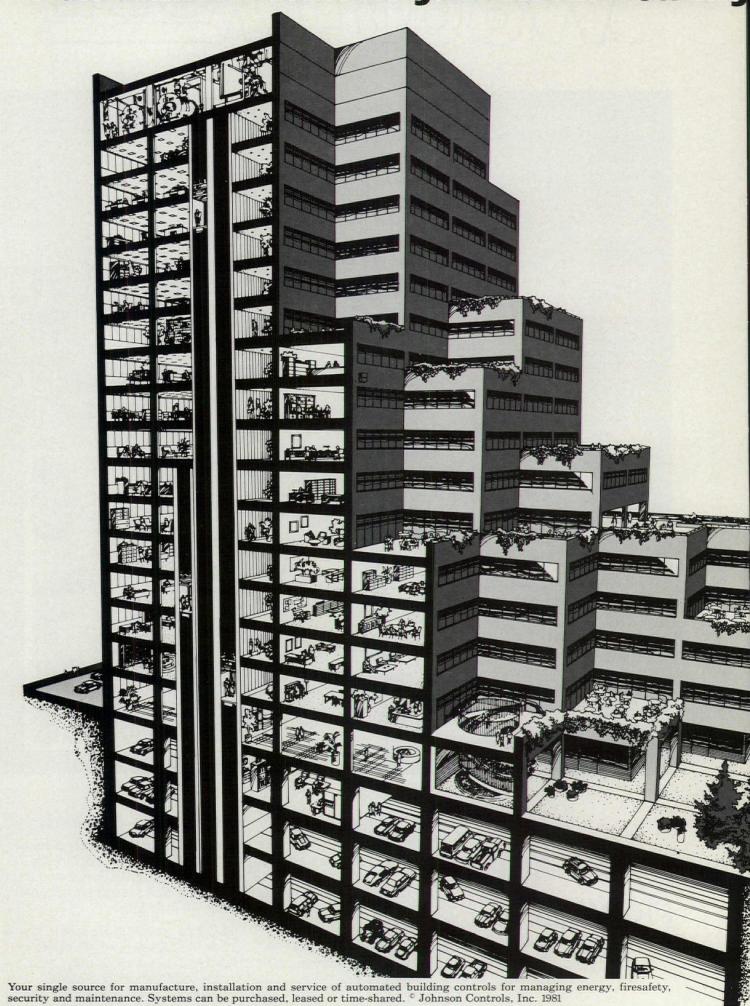
Wisdom. It prevails in every piece of custom-built furniture Wood-Mode makes—be it built-in or free-standing. And it lets Wood-Mode prevail...over all others in its field.

See more prevailing wisdom in Picturebook VI-all new, with 44 pages in full color. For your free copy, send name, address to Wood-Mode Cabinetry, Dept. 15, Kreamer, Snyder Co., Pa. 17833.

Wood-Mode Cabinetry is available in Canada.

Circle No. 355 on Reader Service Card

How Johnson Controls gave Kevin Dowling



Progressive Architecture 12:81

total control at State Fund.



What's the history of this project?

Well, it's a 17-story, 460,000 square foot office building. We—Donald Bentley and Associates—were the mechanical and electrical consulting engineers. Planning began in late 1973, construction in '75. The basic building was occupied in '77 with almost half the floors still to be finished to suit incoming tenants. It was a fast-track project, so we recommended a Johnson Controls JC/80 computerized automation system.



Why did you recommend Johnson Controls?

They were low-bidder to begin with. Also, with fast-tracking and phased occupancy, we needed all the flexibility we could get. On a job like this you can't afford to get boxed in. As it goes along you've got to be able to modify, add or delete systems and equipment. The JC/80 system and the Johnson Controls people take all this in stride. When it comes to building controls, they're the experts.



How about energy savings?

Energy wasn't a serious problem when we began to design this building in '73. By the time it was occupied, it was a major problem. Here's where the JC/80 system really paid off. Without any change in the basic building or equipment, the JC/80 cut energy use during the heating season by 50%! State Fund even won an energy conservation award from the utility company.



You got total control with Johnson Controls?

Yes. HVAC, both electronic and pneumatic. Energy conservation. Security. And lifesafety. They did the whole building control job according to our specifications—from design to procurement, to installation and calibration. But remember, it is our responsibility to see that all building systems are installed and running correctly. We spent almost four months just checking out the 600 interrelated pieces of equipment in the lifesafety system. Johnson Controls put it in, but our reputation rides on it.



Kevin Dowling, Vice President Donald Bentley and Associates Project Engineer, State Fund Building San Francisco, CA

You trust your reputation to Johnson Controls?

We have and we will. They're competent. They're on time. They do the whole job. We worked with them a lot, on

big and little jobs, and we'll recommend them again. Yes, we trust them.

FREE IDEABOOK

STREET ADDRESS

This free brochure gives you full information on saving energy and money with Johnson Controls Building Automation Systems. Send for your free Ideabook today:

Mr. Ron Caffrey, Vice President, Marketing Systems & Service Div., Johnson Controls, Inc. Ref. P-17, Box 423, Milwaukee, Wisconsin 53201

JAME					
				The sale	

TITLE ____

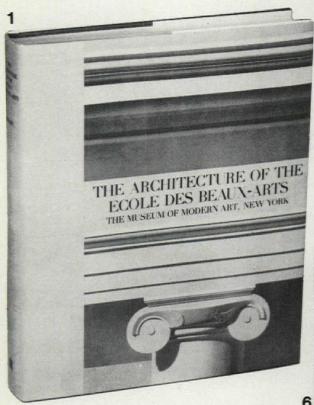
COMPANY _____PHONE ____

CITY STATE ZIP

We put you in total control

Circle No. 330 on Reader Service Card

Here, for the first time in this century. is an opportunity to re-examine the philosophy of the Beaux-Arts school of architecture.





Each book has been selected for its usefulness to you in your professional practice. Prices slightly higher in Canada. Foreign orders must be accompanied by payment. It is not necessary to send payment with the order. Circle appropriate numbers on the Reader Service Cards in the back of this issue, add your name and address and mail. Local sales tax must be included with payment. Prices subject to change. For faster service, send the card in an envelope to:

Mrs. Hetty Rizvi **Progressive Architecture** 600 Summer Street PO Box 1361 Stamford, Ct. 06904

P/A Back issues

A limited supply of the following issues of P/A are available at \$6.00 per Copy. Check MUST accompany order! Connecticut Residents Add 71/2% Sales Tax.

November Architectural landmarks/Daylight

control/Concrete preservation

October New Classicism/Light-transmitting plastics

September Interiors as archaeology/Insulating with

windows

August Elderly housing/Site 1-A/Florida

recreation facility

July.....Urban Shopping Centers/Photomurals/

Safety

June..... Regional vernacular architecture

Send both to:

P.O. Box 1361

Mrs. Hetty Rizvi Progressive Architecture 600 Summer Street Stamford, Ct. 06904



1 The Architecture of the Ecole des Beaux-Arts

Edited by Arthur Drexler with essays by Richard Chafee. David Van Zanten, Neil Levine and Arthur Drexler 423 pp., illus. . . . \$55.00

The most comprehensive analysis and documentation of Beaux-Arts architecture ever published. Includes large-scale drawings of elevations and plans and photographs of major French and American Beaux-Arts buildings (including Pennsylvania Station and Grand Central Terminal). Circle B601 under Books.

2 Energy Conservation Through Building Design

Edited by Donald Watson, 305 pp., illus. . . . \$24.25

This precedent-setting book provides the bridge between architect and engineer, practitioner and researcher, so necessary to the development of a rational approach to energy conser-vation. Not limited to new building designs, it also includes methods of analyzing existing structures and specific ways to reduce their energy consumption.
Circle B602 under Books.

NEW*

3 Structural Systems

By Henry J. Cowan and Forrest Wilson 256 pp., illus. . . . \$24.95

This is a comprehensive guide to preliminary structural design using a minimum of mathematics and numerous illustrations to describe structural forms and their mathematics. It has a strong emphasis on graphic presentation and is an instant-access reference to structural design. Full consideration is given to the internal and external forces that a building must withstand, and the interaction of tructural and environmental design. Circle B603 under Books.

NEW*

4 Architecture: Form, Space and Order

By Francis D.K. Ching 294 pp., illus. . . . \$22.50

Written to foster understanding of design concepts, this rich source of architectural prototype demonstrates how to extract the fundamental principles of form and space from the environment, whether in the architectural one views or inhabits, in archi-tectural visualization, in drawing, or in

actual design.

Circle B604 under Books.

5 Affordable Houses Designed by Architects

Edited by Jeremy Robinson, 168 pp., illus. . . \$22.95

This lavishly illustrated volume shatters the myth that architect-designed houses are more costly than de-veloper-built houses. The superb photographs, floor plans, drawings, and details of interiors and exteriors present a wealth of ideas on how to construct beautiful and unique houses within limited budgets.

Circle B605 under Book

6 Design Competitions

By Paul D. Spreiregen, 310 pp., illus. . . . \$27.50

The first comprehensive guide to design competitions based on American practices, it examines in detail all important aspects of this timely subject, including how competitions work and the ground rules that govern most competitions.

Circle B606 under Books.

7 Design and Planning of Swimming Pools

By John Dawes, 276 pp., illus. . . . \$49.95

A comprehensive manual that de-scribes the essential characteristics and consequent design requirements of every type of pool imaginable. Also deals in great detail with more technilems and how to solve them, finishes, filtration, circulation and water treatment, heating and ventilating. Circle B607 under Books.

8 Architectural Rendering: The Techniques of Contemporary Presentat

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

This completely up-dated revision of the most widely used guide to archi-tectural rendering covers all working phases from pencil strokes to finished product — and shows how to obtain the desired mood, perspective, light and color effects, select proper equip-ment and work in different media. Circle B608 under Books

NEW*

Q Cities For People

By Ronald Wiedenhoeft 224 pp., illus. . . . \$22.95

This book is a thoughtful analysis of the dehumanization of cities and the urban blight that results. It demonstrates how we can reverse this trend. making cities more responsive to human needs and improving their economic viability. It offers a number of economically sound steps that have proven effective in revitalizing cities

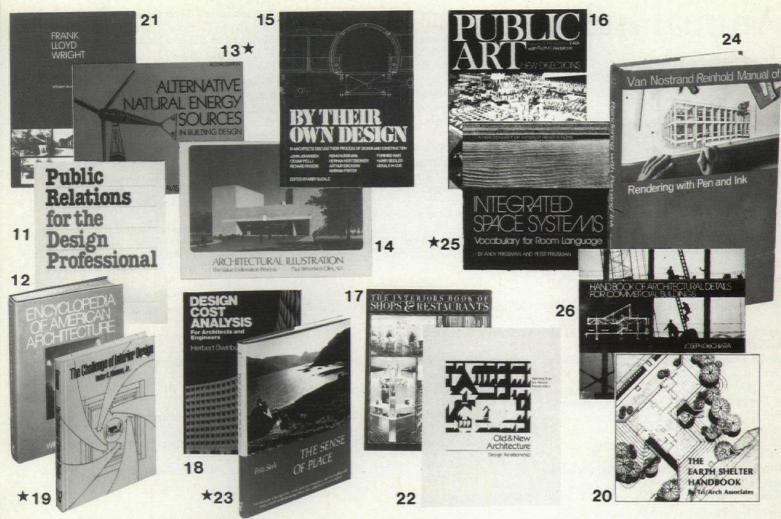
Il over the world. Circle B609 under Books

10 Water in Landscape Architecture

By Craig S. Campbell 128 pp., illus. . . . \$15.95

This profusely illustrated book is the first published work that deals in sub-stantial detail with the technical as well as the aesthetic principles of fountain design. Covers basic hydraulic principles, practical limitations, environment and available equipment

Circle B610 under Books.



1 1 Public Relations for the Design Professional

By Gerre Jones, 278 pp., illus. . . . \$24.50

An authoritative book on public re lations written in easily understood language for architects, engineers and other design professionals. Explains how to plan, set up and carry out a PR program that meets special requirements, as well as how to take advantage of some often overlooked opportunities for free publicity from the media

Circle B611 under Books.

12 Encyclopedia of American Architecture

By William Dudley Hunt, Jr. 612 pp., illus. . . . \$39.95

Presents in words and illustrations the full, rich fabric of American archi-tecture. The volume narrates the full, fascinating scope and splendor of American architectural tradition. It contains biographical profiles of 50 American innovators.

Circle B612 under Books

NEW*

13 Alternative Natural Energy Sources in Building Design

By A. J. Davis and R. P. Schubert 287 pp., illus. . . . \$17.95

Basic design criteria about energy conservation, solar energy, wind energy, and methane-gas energy is updated in this edition. Alternative solutions and applications are described for each problem and diagrams, tables and formulas are supplied. This book is the perfect introduction to the complex subject of energy. Circle B613 under Books.

1 4 Architectural Illustration The Value Delineation Proces

by Paul Stevenson Oles 288 pp., illus. . . . \$34.50

In this copiously illustrated, clearly organized explanation of his value delineation system, the author presents a detailed description of the process which has resulted in these award-winning delineations that show realistically how a designed structure will appear when built.

Circle R614 under Books.

15 By Their Own Design

Edited by Abby Suckle 160 pp., illus . . . \$19.95

Ten internationally known architects describe their concerns, both artistic and pragmatic, as they related to the process of designing and construct-ing one or more of their major build-

Circle B615 under Books

16 Public Art

By Louis G. Redstone 216 pp., illus. . . . \$34.50

This book is a stimulating record of accomplishments here and abroad to promote, sponsor, finance, and support new concepts, experiments, materials and fabrication methods for art-in-architecture projects. New art forms that integrate with the overall environment and reflect the multifaceted character of today's society are lavishly illustrated.

Circle B616 under Books.

17 The Interiors Book of Shops & Restaurants

By Interiors Magazine 144 pp., illus. . . \$25.00

Forty-five projects, showing the work of prominent architects and designers, encompass the entire field of wholesale and retail design. Projects are divided into four categories taurants, stores and shops, showrooms, and malls and marketplaces. Each project requires the designer to create a strong image that the poten-tial customer can identify and an ambiance that is relaxing. Plans and drawings are included to understand the concepts.

Circle B617 under Books

18 Design Cost Analysis for Architects & Engineers

By Herbert Swinburne 317 pp., illus. . . . \$21.50

This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the design stage when the potential for conling costs is greatest. Circle B618 under Books

NEW*

19 The Challenge of Interior Design

By Walter B. Kleeman, Jr. 338 pp., illus. . . . \$19.95

This book is a flagship text in the growing field of ergonomics. It shows how you can incorporate anthropology and gerontology into the design of any space or building. It shows how behavior is influenced by design enabling you to induce a feeling of well-being for the recipients of your next project

Circle B619 under Books.

20 The Earth Shelter Handbook

By Tri-Arch Associates 244 pp., illus. . . \$12.95

This paper-back handbook presents to architects, builders, private home owners and commercial clients an easy-to-follow, step-by-step evaluation plan for site selection, soil evaluation and criteria for placement in relation to wind and sun Circle B620 under Books.

21 The Architecture of Frank Lloyd Wright A Complete Catalog Second Edition

By William Allin Storrer 456 pp., illus. . . . \$15.00

This second edition, which docuents all of the buildings designed by Wright, replaced a number of photo graphs with new ones that show the buildings to better effect, changed some copy in the text, and incorporated factual information that has come to light since the original publication in 1974.

Circle B621 under Books.

22 Old and New Architecture: Design Relationship

280 pp., illus. . . . \$25.00

How to make new architecture compatible with its current setting, whether in the midst of a large historic urban area or as an addition to an old building, is analyzed in this first comprehensive book on the subject by 18 design experts.

Circle B622 under Books

NEW* 23 The Sense of Place

By Fritz Steele 240 pp., illus. . . . \$19.95

This book is about our sense of place - the way it affects our lives, and the way in which we create our own sense of place. It is a unique look at the interaction between the features of settings and the features of the people who use them and how we could profit from a better understanding of how we relate to our surroundings.

Circle B623 under Books

24 Rendering With Pen and Ink

By Robert W. Gill, 368 pp., illus. . . \$14.95

This paper-back edition is a copiously illustrated guide to the techniques and methods of rendering, including sections on perspective, projection, shadow, reflections, and how to draw cars, ships, aircraft, trees, and human figures. The author also describes the very wide range of instruments and

equipment currently in use Circle B624 under Books.

NEW*

25 Integrated Space Systems Vocabulary for Room Language

By A. Pressman & P. Pressman, 116 pp., illus. . . . \$16.95

This unique volume describes the theory and practices of integrated space systems, a novel approach to home renovation that promotes the economical and humanistic use of space, without damage to the existing structure.

Circle B625 under Books.

26 Handbook of Architectural Details for Commercial Buildings

By Joseph DeChiara 506 pp., illus. . . . \$37.50

This Handbook illustrates and examines the full range of architectural details currently used for commercial buildings. Part I features plans, elevations, and sections for office build-ings, banks, retail stores, theaters, and more. Part II concentrates on architectural details. Practicality and realism are stressed.

Circle B626 under Books

Annual Index January-December

Articles are listed chronologically by subject matter, followed by an alphabetical list of architects.

Architectural history

Introduction: Farewell, Caro Maestro (May, p. 117).

Carlo Scarpa. Scarpa as educator (May, p. 137)

Karl Friedrich Schinkel. Architecture as alchemy (Oct., pp. 72-77).

Edwin Lutyens. Architecture as chemistry (Oct., pp. 92-93); Viceroy's House, New Delhi (Dec., pp. 92-98).

Le Corbusier's sketchbooks (Dec., pp. 74-81).

Architectural research

Historical Sites Survey, South Philadelphia (Jan., pp. 106-109).

Historic Preservation Education, Champaign, Il (Jan., pp. 110-111).

Mental Health Center, Pasadena, Ca (Jan., pp. 112-113).

Home Safety Guidelines for Architects and Builders (Jan., pp. 114-115).

Rooftop Solar Greenhouse, Bronx, NY (Jan., pp. 116-117).

Architectural theory

Introduction: Symbolic statements (Mar., pp. 73-75).

Introduction: Technology, talent, and vision (Apr., p. 107).

Introduction: Regionalism and the vernacular tradition (June, pp. 75-77).

Introduction: The age of the aging (Aug., p.

Introduction: Put it in backward when for-

ward fails (Sept., pp. 153-155).

Washed up on the New Wave (Sept., p. 161). On the hegemony of the ersatz (Sept., p. 189).

Three coins in the water cooler (Sept., p. 210).

Introduction: The new Classicism (Oct., p.

The Classical undergound (Oct., 88-91). The Classical transformed (Oct., 105-107). Introduction: The lives of landmarks (Nov.,

p. 81).

Commercial/Shops

Savings and Loan Bank prototype, South Dakota (Jan., pp. 126-127).

BEST Products Company, Richmond, Va (Feb., pp. 66-73).

Banca Popolare, Verona, Italy (May, pp. 132-136).

Introduction: Shopping goes to town (July,

Downtown devitalized (July, p. 82).

Mall modifications (July, p. 83).

Uncle Sam Atrium, Troy, NY (July, pp.

Plaza Pasadena, Pasadena, Ca (July, pp.

Euromercato Brianza, Paderno Dugnano, Italy (July, pp. 98-99).

Santa Monica Place, Santa Monica, Ca (July, pp. 84-88).

Roundtable on Rouse: Faneuil Hall Market Place, Harborplace, South Street Seaport (July, pp. 100-106).

Sunar Showroom, New York (Aug., pp. 88-93).

Italian Trade Center, New York (Aug., pp.

Shops on Melrose Ave., Los Angeles (Sept., pp. 168-172).

Cultural facilities (see also Museums)

Gagosian Studio, Venice, Ca (Feb., pp. 86-

St. Paul's School, Concord, NH (Feb., pp. 74-77)

National Theatre for the Performing Arts, Bombay (Mar., pp. 76-81).

Opa-Locka Neighborhood Service Center, Miami (June, pp. 102-105).

Old U.S. Branch Mint, New Orleans (Nov., pp. 92-95).

Villard Houses complex, New York (Nov., pp. 96-101).

Editorials

Entryways (Jan., p. 7).

Prismacolor and the art of building (Feb., p.

Quality vs. ideology (Mar., p. 7).

Putting energy into practice (Apr., p. 7). Competition contention 1 (May, p. 7).

Competition contention 2 (June, p. 9).

Competition contention 3 (July, p. 7). Competition contention 4 (Aug., p. 7).

Competition contention 5 (Sept., p. 7). Classicism, last time around (Oct., p. 7).

Period, place, and building (Nov., p. 7). A decade in summary (Dec., p. 9).

Educational facilities

Glenfield Middle School, Montclair, NJ (Jan., pp. 132-133).

St. Paul's School, Concord, NH (Feb., pp.

International Meeting Center, University of Berlin (Apr., pp. 150-153).

The Pilchuck School, Stanwood, Wa (June, pp. 98-101).

Stephen C. O'Connell Center, University of Florida, Gainesville (Aug., pp. 82-87).

Temple University Student Activities Center, Philadelphia (Sept., pp. 190-194). Lewisohn Hall, Columbia University, New York (Sept., pp. 214-215).

School of Architecture, Rice University, Houston, Tx (Dec., pp. 53-61).

Energy

Solar Housing, Sacramento, Ca (Jan., pp. 158-159).

Energy-efficient State Office Building, San Jose, Ca (Jan., pp. 138-139).

Rooftop Solar Greenhouse, Bronx, NY (Jan., pp. 116-117).

Introduction: Technology, talent, and vision (Apr., p. 107).

Museum of Science and Industry, Tampa,

Fl (Apr., pp. 108-113).

Hotsy Corp., Denver (Apr., pp. 114-117). Milford Reservation Environmental Center, Milford, Pa (Apr., pp. 118-121).

Main Post Office, Aspen, Co (Apr., pp. 129-195)

Prison, Bastrop, Tx (Apr., pp. 126-131). Apartment, Berkeley, Ca (Apr., pp. 132-133)

Stockebrand house, Albuquerque, NM (Apr., pp. 134-137).

Brodhead house, La Honda, Ca (Apr., pp. 138-141).

Raven Run house, Lexington, Ky (Apr., pp. 142-145).

Autonomous Dwelling (Apr., pp. 146-149). International Meeting Center, West Berlin (Apr., pp. 150-152).

Energy analysis overview (Apr., p. 154). Spec clinic: Evaluating new energy prod-

ucts (Apr., p. 171). Technics: New energy frontiers (Apr., pp. 172-185).

It's the law: Solar access rights (Apr., p.

Kress Residence, Albuquerque, NM (June, pp. 106-109).

Spec clinic: Insulating glass: Testing and certification (Sept., p. 231).

Technics: Insulating glass windows (Sept., pp. 233-241).

Technics: Daylight control (Nov., pp. 138-143).

Energy analyses

State of Illinois Center, Chicago (Feb., pp. 96-99)

Benedictine Mission House, Schuyler, Ne (Mar., pp. 104-109).

International Meeting Center, University of Berlin (Apr., pp. 150-153).

Energy analysis: One year later (Apr., pp. 154-156).

Kress Residence, Albuquerque, NM (June, pp. 106-109).

Santa Monica Place, Santa Monica, Ca (July,

p. 89).
"Where do we go from here?," A retrospective on the Energy Analysis Series (Aug., pp. 100 - 102)

Portland Public Office Building (Oct., pp. 108-109)

Wainwright Building, St. Louis (Nov., pp.

Aquatic Center, Corvallis, Or (Dec., p. 89).

Government buildings

Backriver Wastewater Treatment Plant, Baltimore (Jan., pp. 140-141).

Energy Efficient State Office Building, San Jose, Ca (Jan., pp. 138-139).

U.S. Consular Office and Residence, Lyon,

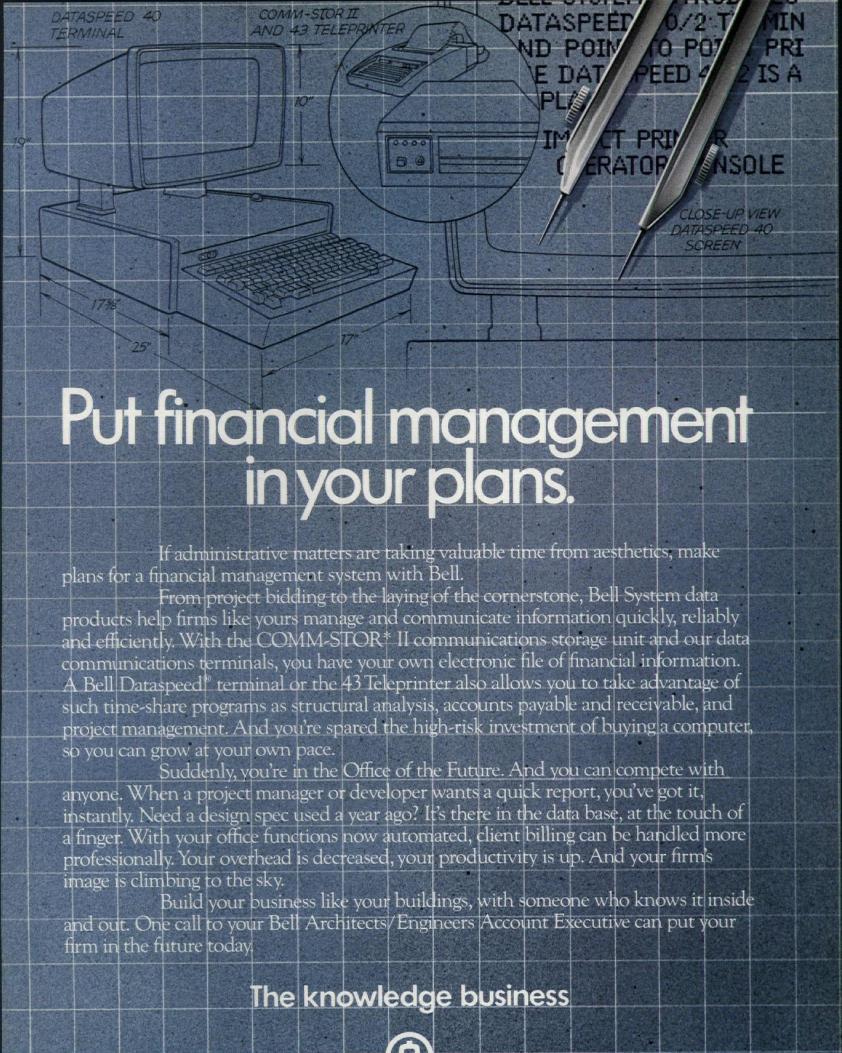
France (Jan., pp. 130-131). State of Illinois Center, Chicago (Feb., pp.

96-99). Boston's South Postal Annex (Mar., pp.

100-103). Canberra's new Parliament House, Austra-

lia (Mar., pp. 88-95). Government Center, Vancouver (Mar., pp.

82-87). Federal correctional institution, Bastrop,



Circle No. 306 on Reader Service Card

*Registered trademark of Sykes Datatronics, Inc.

Tx (Apr., pp. 126-131).

Main Post Office, Aspen, Co (Apr., pp. 122-125).

Opa-Locka Neighborhood Service Center, Miami (June, pp. 102–105).

State Office Building, Sacramento, Ca (Aug., pp. 76–81).

Courthouse, Manchester, Ct (Oct., pp. 80-

Wainwright Building, St. Louis (Nov., pp.

Viceroy's House, New Delhi (Dec., pp. 92-98).

Hotels

Americana Hotel, Fort Worth, Tx (Sept., pp. 184–187).

Villard Houses/Palace Hotel, New York (Nov., pp. 96-101).

Arizona Biltmore, Phoenix (Nov., pp. 110–115).

Houses and housing

Solar Housing, Sacramento, Ca (Jan., pp. 158–159).

Innovations in Housing, Third Annual Awards (Jan., pp. 168–173).

Lufkin House, Southampton, NY (Jan., pp. 124-125).

Condominiums, Beaver Creek, Co (Jan., pp. 134–135).

House on the Oregon Coast, Shalishan Hills, Or (Jan., pp. 136–137).

Condominiums, Edmonton, Alberta (Jan., pp. 142-143).

McAshen House, Houston (Jan., pp. 144-145).

Harvard Faculty Housing, Cambridge, Ma (Jan., pp. 146–147).

Christopher Street Housing, New York (Jan., pp. 152–153).

Mount Vernon Church Condominiums, Boston (Jan., pp. 154-155).

Haig House, Toronto (Feb., pp. 90-91). Gagosian Studio, Venice, Ca (Feb., pp. 86-

Gagosian Studio, Venice, Ca (Feb., pp. 86-89).

Brodhead House, La Honda, Ca (Apr., pp. 138–141).

Raven Run House, Lexington, Ky (Apr., pp. 142-145).

Autonomous Dwelling Vehicle (Apr., pp. 146–149).

International Meeting Center, University of Berlin (Apr., pp. 150-153).

Stockebrand residence, Albuquerque, NM (Apr., pp. 134–137).

Solar Duplex, Berkeley, Ca (Apr., pp. 132-

Three houses in Napa Valley, Ca (June, pp. 78–85).

Logan House, Tampa, Fl (June, pp. 86–89). Rabinowitz and Lange houses, Carefree, Az (June, pp. 90–97).

Kress Residence, Albuquerque, NM (June, pp. 106-109).

Captain Clarence Eldridge House, Hyannis, Ma (Aug., pp. 64–68).

Architects Housing (Elderly), Trenton, NJ (Aug., pp. 69-71).

Woolf House, San Francisco (Aug., pp. 72-

Philip Maberry Loft, New York (Sept., pp. 165-167).

Zambonini Lofts, New York (Sept., pp. 176–181).

Charles Moore House, Los Angeles (Sept.,

pp. 182-183).

Gould/Sargent Condo, Santa Monica, Ca (Sept., pp. 198–201).

Henley House, Los Angelés (Sept., pp. 202-205).

Talbot House, Nevis, W.I. (Oct., pp. 102-104).

Tuscan House/Laurentian House, Livermore, Ca (Oct., pp. 98-101).

Le Viaduc/Les Arcades du Lac, Saint-Quentin-en-Yvelines, France (Oct., 94-97). Steel and glass house, Chicago (Dec., pp. 62-67).

Interior design

Le Premier and La Detente, Washington, DC (Mar., pp. 96-99).

Museo di Castelvecchio, Verona, Italy (May, pp. 118–123).

Banca Popolare, Verona, Italy (May, pp. 132–136).

P/A First Annual Conceptual Furniture Competition (May, pp. 150-155).

Sunar Showroom, New York (Aug., pp. 88-93).

Italian Trade Center, New York (Aug. pp. 94-99).

China Club, Los Angeles (Sept., pp. 156-160).

Odeon Restaurant, New York (Sept., pp. 162–164).

Maberry Loft, New York (Sept., pp. 165-167)

Shops on Melrose Ave., Los Angeles (Sept., pp. 168–172).

Leo de Wys Offices, New York (Sept., pp. 173-175).

Zambonini Lofts, New York (Sept., pp. 176–181).

Charles Moore House, Los Angeles (Sept., pp. 182–183).

Americana Hotel, Fort Worth, Tx (Sept., pp. 184–187).

Temple University Student Activities Center, Philadelphia (Sept., pp. 190–194). "Movables" furniture from American designers (Sept., pp. 194–197).

Gould/Sargent Condo, Santa Monica, Ca (Sept., pp. 198–201).

Henley House, Los Angeles (Sept., pp. 202–205).

Bistrot 77 Restaurant, Frankfurt, West Germany (Sept., pp. 206–209).

Shope, Reno, Wharton Office, Greenwich, Ct (Sept., pp. 211-213).

Lewisohn Hall, Columbia University, New

York (Sept., pp. 214–215).

Offices, near Chicago (Sept., pp. 216–218). American Honda office, Washington, DC (Dec., pp. 90–91).

Law

Zoning affects condemnation award (Jan., p. 198).

Liability for alleged negligence (Feb., p. 190)

Zoning regulations for minority housing (Mar., p. 124).

(Mar., p. 124). Solar access rights (Apr., p. 191).

Unclear title creates hardship (May, p. 182). Owner liability for misleading specifications (June, p. 128).

Liability for user safety (July, p. 138).

Validity of minimum multiacre zoning (Sept., p. 250).

Defining "family" for zoning purposes

(Oct., p. 139).

The architect as arbiter (Nov., p. 157).

Medical facilities

Menninger Foundation, Topeka, Ks (Jan., pp. 156-157).

Mental Health Center, Pasadena, Ca (Jan., pp. 112-113).

Museums

Herreshoff Yachting Museum, Bristol, RI (Jan., pp. 122–123).

Museum of Science and Industry, Tampa, Fl (Apr., pp. 108–113).

Museo di Castelvecchio, Verona, Italy (May, pp. 118–123).

Frick Collection addition, New York (Oct., pp. 78-79).

Altes Museum, East Berlin (Nov., pp. 86-91).

Offices

1915 Eye Street, Washington, DC (Jan., pp. 150–151).

Energy-efficient State Office Building, San Jose, Ca (Jan., pp. 138–139).

Hendley Building, Galveston, Tx (Feb., pp. 94-95).

Wyble Advertising, Millville, NJ (Feb., pp. 92-93).

BEST Products Company, Richmond, Va (Feb., pp. 66–73).

Hotsy Corporation headquarters, Denver (Apr., pp. 114-117).

Leo de Wys Offices, New York (Sept., pp. 173-175).

Shope, Reno, Wharton offices, Greenwich, Ct (Sept., pp. 211–213).

Offices, near Chicago (Sept., pp. 216–218). The Hallidie Building, San Francisco (Nov., pp. 108–109).

American Honda office, Washington, DC (Dec., pp. 90–91).

Profiles

Skidmore, Owings & Merrill (May, pp. 138–141).

The works of Quinlan Terry, London (Oct., pp. 84-87).

Recreational facilities

Jordan Pond House, Mt. Desert, Me (Jan., pp. 128–129).

South Side Settlement, Columbus, Oh (Feb., pp. 78–85).

Milford Reservation Environmental Center, Milford, Pa (Apr., pp. 118–121).

Opa-Locka Neighborhood Service Center, Miami (June, pp. 102-105).

Louis Armstrong Park, New Orleans (June, pp. 110–114).

Stephen C. O'Connell Center, University of Florida, Gainesville (Aug., pp. 82-87).

Sports complex and aquatic center, Oregon (Dec., pp. 82-88).

Religious buildings

Benedictine Mission House, Schuyler, Ne (Mar., pp. 104–109).

Sanctuary of Meritxell, Andorra (Mar., pp. 110–113).

Brion-Vega Cemetery, San Vito di Altivole,

Italy (May, pp. 124-131).

San Francisco de Asis, Ranchos de Taos, NM (Nov., pp. 82-85).

Restaurants

Jordan Pond House, Mt. Desert, Me (Jan., pp. 128–129).

Le Premier and La Detente, Washington, DC (Mar., pp. 96–99).

China Club, Los Angeles (Sept., pp. 156-160).

Odeon Restaurant, New York (Sept., pp. 162-164).

Bistrot 77, Frankfurt, West Germany (Sept., pp. 206–209).

Restoration and remodeling

Mt. Vernon Church Condominiums, Boston (Jan., pp. 154–155).

1915 Eye Street, Washington, DC (Jan., pp. 150-151).

Haig House, Toronto (Feb., pp. 90-91). Wyble Advertising, Millville, NJ (Feb., pp. 92-93).

Hendley Building, Galveston, Tx (Feb., pp. 94–95).

Boston's South Postal Annex (Mar., pp. 100–103).

Courthouse, Manchester, Ct (Oct., pp. 80-83)

San Francisco de Asis, Ranchos de Taos, NM (Nov., pp. 82-85).

Altes Museum, East Berlin (Nov., pp. 86-91).

Old U.S. Branch Mint, New Orleans (Nov.,

pp. 92-95). Villard Houses, New York (Nov., pp. 96-

Wainwright Building, St. Louis (Nov., pp.

102–106). Hallidie Building, San Francisco (Nov., pp.

108–109).

Arizona Biltmore, Phoenix (Nov., pp. 110–115).

Cité de Réfuge, Paris (Nov., pp. 116-119).

Specifications clinic

Curtainwall performance specifications (Jan., p. 191).

Organizing your information resources (Feb., p. 103).

American specifications for overseas work (Mar., p. 120).

Evaluating new energy products (Apr., p. 171).

Waterproofing for planters (May, p. 165). An "as built" project manual (June, p. 122). Furniture flammability standards (July, p. 131).

Keeping up (Aug., p. 109). Insulating glass (Sept., p. 231).

Seven sins of specifying—Part I (Nov., p. 129)

Seven sins of specifying—Part II (Dec., p. 105).

Technics

Moisture protection (Feb., pp. 104-111). New energy frontiers (Apr., pp. 172-185). Interior gardens (May, pp. 166-171). Photomurals (July, pp. 115-121). Design for safety (July, pp. 122-129). Insulating glass windows (Sept., 233-241). Light transmitting plastics (Oct., 125-133). Concrete restoration (Nov., pp. 131-137). Daylight control (Nov., pp. 138-143).

Transportation

Haj Air Terminal, Jeddah, Saudi Arabia (Jan., pp. 120–121).

Urban design and planning

University Avenue, Ithaca, NY (Jan., pp. 90-93).

Capital Center, Providence, RI (Jan., pp. 94-95).

Yanbu New Community, Saudi Arabia (Jan., pp. 96–97).

Historic Jim Thorpe, Pa (Jan., pp. 98-99). Marin Solar Village, Novato, Ca (Jan., pp. 100-101).

Edgewater Marina Mall, Edgewater, NJ (Jan., pp. 102-103).

Pioneer Courthouse Square, Portland, Or (Jan., pp. 148-149).

Roundtable on Rouse: Faneuil Hall Market Place, Harborplace, South Street Seaport (July, pp. 100-106).

Architects, designers, engineers, planners

Abe, Sampei: China Club Restaurant, Los Angeles (Sept., pp. 156–160).

Adler & Sullivan: Wainwright Building, St. Louis (Nov., pp. 102–106).

Alianza Arquitectos: Kress Residence, Albuquerque, NM (June, pp. 106-109).

Ambrose & McEnany (See James Stirling). Anderson, Robert Barker and Swaney Kerns Architects: 1915 Eye Street, Washington, DC (Jan., pp. 150–151).

Astle Ericson & Associates: Benedictine Mission House, Schuyler, Ne (Mar., pp. 104–109).

Bakewell, Ted III and **Michael Jantzen:** Autonomous Dwelling Vehicle (Apr., pp. 146–149).

Baird, George: Haig House, Toronto (Feb., pp. 90-91).

Baldwin, Benjamin (See Roger Ferri).

Batey & Mack: Three houses in Napa Valley, Ca (June, pp. 78-85).

Bazjanac, Vladimir and Sam Davis: Solar Housing, Sacramento, Ca (Jan., pp. 158-159).

Bofill, Ricardo (See Taller de Arquitectura).

Boggs, Joseph/Studio and Dewberry,
Nealon & Davis: Backriver Wastewater
Treatment Plant, Baltimore (Jan., pp. 140–
141)

BOSTI: Home Safety Guidelines for Architects and Builders (Jan., pp. 114-115).

Bosworth, Thomas L.: The Pilchuck School, Stanwood, Wa (June, pp. 98-101).

Bouterse, Perez & Fabregas: Opa-Locka Neighborhood Service Center, Miami (June, pp. 102–105).

Broome, Oringdulph, O'Toole, Rudolf & Associates: Sports complex and aquatic center, Oregon (Dec., pp. 82–88).

California State Architect, Office of: State Office Building, Sacramento (Aug., pp. 76-81).

Caudill, Rowlett, Scott: Federal Correctional Institution, Bastrop, Tx (Apr., pp. 126–131); Stephen C. O'Connell Center, University of Florida, Gainesville (Aug., pp. 82–87), with Moore, May, Graham, Brame, Poole/Architects.

Ceraldi, Theodore M.: Gainesway Farm, Lexington, Ky (Dec., pp. 68–73).

Chimacoff, Alan and School of Architecture, Princeton: Prudential Insurance Co. (May, p. 145).

Cohen, Stuart: Offices, near Chicago (Sept., pp. 216–218).

Copland, Hagman, Yaw, Ltd.: Main Post Office, Aspen, Co (Apr., pp. 122–125).

Cross and Little Architects: Le Premiere and La Detente Restaurants, Washington, DC (Mar., pp. 96-99).

Crowther, Richard: The Hotsy Corporation Headquarters, Denver (Apr., pp. 114–117).

Davis, Sam (see Vladimir Bazjanac).

Design Collaborative: Italian Trade Center, New York (Aug., pp. 94-99).

Dewberry, Nealon & Davis (see Joseph Boggs/Studio).

ELS Design Group/SOL-ARC: Energy-efficient State Office Building, San Jose, Ca (Jan., pp. 138–139).

ELS Design Group and Geoffrey Freeman Associates, Uncle Sam Atrium, Troy, NY (July, pp. 90-93).

Ehrenkrantz Group: Rooftop Solar Greenhouse, Bronx, NY (Jan., pp. 116-117).

Eisenman/Robertson: Lufkin House, Southampton, NY (Jan. pp. 124–125).

Environmental Research Group: Historical Sites Survey, South Philadelphia (Jan., pp. 106–109).

Erickson, Arthur, Associates: Government Center, Vancouver, BC (Mar., pp. 82–87).

Favaro, James B. and Peter D. Lofgren: House on Oregon Coast, Salishan Hills, Or (Jan., pp. 136–137).

Fernau and Hartman: Brodhead House, La Honda, Ca (Apr., pp. 138–141).

Ferri, Roger, Benjamin Baldwin and Jonathan Warwick: Americana Hotel interior (Sept., pp. 184-187).

Feuillatte, Christine and Jean Pierre Heim: Bistrot 77 Restaurant, Frankfurt, W. Germany (Sept., pp. 206–209).

Freeman, Geoffrey, Associates and ELS Design Group: Uncle Sam Atrium, Troy, NY (July, pp. 90-93).

Friday Architects/Planners: Temple University Student Activities Center, Philadelphia (Sept., pp. 190–194).

Geddes Brecher Qualls Cunningham: Architects Housing (elderly housing), Trenton, NJ (Aug., pp. 69–71).
Gehry, Frank O.: Santa Monica Place, Santa

Monica, Ca (July, pp. 84-88). Glitsch, Val: McAshen House (Jan., pp.

144-145).

Graves, Michael: Sunar Showroom, New York (Aug., pp. 88–93); Keystone House, Warren Township, NJ (Oct., p. 107).

Greenberg, Allan: Connecticut Farmhouse (Oct., pp. 88–89); with Peter Kosinski Associates, Courthouse, Manchester, Ct (Oct., pp. 80–83).

Graham Gund Associates: Church condominiums, Boston (Jan., pp. 154-155).

Handlin, David and Larry I. Mitnik: Harvard Faculty Housing, Cambridge, Ma (Jan., pp. 146–147).

Hardy Holzman Pfeiffer Associates: St. Paul's School, Concord, NH (Feb., pp. 74-77); BEST Products Co. Headquarters,

Richmond, Va (Feb., pp. 66-73).

Hong, James and Michael Sorkin: Leo de Wys Office, New York (Sept., pp. 173–175). Heim, Jean Pierre and Christine Feuillatte: Bistrot 77 Restaurant, Frankfurt, W. Germany (Sept., pp. 206–209).

Helfer Architects: Edgewater Marina Mall, Edgewater, NJ (Jan., pp. 102–103).

Herman, Robert, Associates, Inc.: Woolf House, San Francisco (Aug., pp. 72–75).

House, San Francisco (Aug., pp. 12-15). Holl, Steven: Wyble Advertising renovation, Millville, NJ (Feb., pp. 92-93).

Howard, Coy: Gould/Sargent Condo, Santa Monica, Ca (Sept., pp. 198–201).

Jacobs, Stephen, & Associates: Christopher Street Housing, New York (Jan., pp. 152–153).

Jahan, Eric and Barry Korobkin: Captain Clarence Eldridge House, Hyannis, Ma (Aug., pp. 64-68).

Jantzen, Michael (see Ted Bakewell III). Johnson/Burgee: National Theater for the Performing Arts, Bombay (Mar., pp. 76–81).

Kaplan/McLaughlin/Diaz: Hallidie Building, San Francisco (Nov., pp. 108–109). Kelbaugh & Lee: Milford Reservation En-

Kelbaugh & Lee: Milford Reservation Environmental Center, Milford, Pa (Apr., pp. 118–121).

Kober, Charles, Associates, Millard Archuleta Associates, Marion J. Varner Associates: Plaza Pasadena, Pasadena, Ca (July, pp. 94–97).

Korobkin, Barry (see Eric Jahan).

Kosinski, Peter (see Allan Greenberg).

Krueck & Olsen: Steel and glass house, Chicago (Dec., pp. 62-67).

Le Corbusier: Sketchbooks (Dec., pp. 74–81).

Levin, Edward and Ellen K. Morris: Greek Revival solar house (Oct., p. 107).

Levine, Richard S.: Raven Run house, Lexington, Ky (Apr., pp. 142-145). Lutyens, Edwin: Viceroy's House, New

Delhi (Nov., pp. 92–93; Dec., pp. 92–98).

Maberry, Philip and Scott Walker: Philip Maberry Loft, New York (Sept., pp. 165-167).

Martin/Soderstrom/Matteson: Pioneer Courthouse Square, Portland, Or (Jan., pp. 148–149).

Mazria, Edward, & Associates: Stockebrand residence, Albuquerque, NM (Apr., pp. 134–137).

McArthur, Albert Chase: Arizona Biltmore Hotel, Phoenix (Nov., pp. 110–115).

McKim, Mead & White (see Emery Roth and Sons)
McNaughton, Beiry, Toups, Lemann: Old

U.S. Mint, New Orleans (Nov., pp. 92–95). McNally, Brian and Keith, and Lynn Wagenknecht: Odeon Restaurant, New York (Sept., pp. 162–164).

Millard Archuleta Associates (see Charles Kober Associates).

Mitchell/Giurgola, Hastings & Chivetta: Wainwright Building, St. Louis (Nov., pp. 102–106).

Mitchell/Giurgola, Thorpe: Canberra's new Parliament House (Mar., pp. 88–95).

Mitnick, Larry I. (see David Handlin). MLTW/Turnbull: Condominiums, Beaver Creek, Co (Jan., pp. 134–135).

Moore, Charles: Charles Moore house, Los Angeles (Sept., pp. 182–183).

Moore Grover Harper: Sammis Hall, Cold Spring Harbor, NY (Oct., p. 106).

Moore, May, Graham, Brame, Poole/ Architects (see Caudill Rowlett Scott). Morris, Ellen K. (see Edward Levin).

Mostoller/Wood: Lewisohn Hall, Columbia University, New York (Sept., pp. 214-215). Murphy, C.F., Associates: State of Illinois Center, Chicago (Feb., pp. 96-99).

Nikolic, Vladimir (see Otto Steidle & Partner).

Olsen-Lytle Architects: Historic Preservation Education, Champaign, Il (Jan., pp. 110-111).

O'Neil, John: Odeon Restaurant, New York (Sept., pp. 162-164).

Osmon, Fred: Rabinowitz and Lang Houses, Carefree, Az (June, pp. 90–97).

Patkau, John and Patricia: Condominiums, Edmonton, Alberta (Jan., pp. 142–143).

Perry, Dean, Stahl & Rogers: Boston's South Postal Annex (Mar., pp. 100-103).

Peterson, Steven K.: University Avenue, Ithaca, NY (Jan., pp. 90–93).

Pflueger Architects: Mental Health Center, Pasadena, Ca (Jan., pp. 112–113).

Polk, William (see Kaplan/McLaughlin/Diaz).

Polshek, James Stewart, & Partners: U.S. Consular Office and Residence, Lyon, France (Jan., pp. 130–131); Glenfield Middle School, Montclair, NJ (Jan., pp. 132–133); Delafield Estate, Riverside, NY (Oct., p. 105).

Roth, Emery, & Sons: Villard Houses, Helmsley Palace, New York (Nov., pp. 96–101).

Rowe Holmes Associates: Museum of Science and Industry, Tampa, Fl (Apr., pp. 108-113); Logan ("Dog Trot") House, Tampa, Fl (June, pp. 86-89).

Rudi, Arrigo: Banca Popolare, Verona, Italy (May, pp. 132–136).

Sawyer, David: Henley House, Los Angeles, Ca (Sept., pp. 202–205).

Scarpa, Carlo: Letter of farewell from Emilio Ambasz (May, p. 117); Museo di Castelvecchio, Verona, Italy (May, pp. 118–123); Brion-Vega Tomb, San Vito di Altivole, Italy (May, pp. 124–131); Banca Popolare, Verona, Italy (May, pp. 132–136).

Schinkel, Karl Friedrich: The Altes

Schinkel, Karl Friedrich: The Altes Museum, East Berlin (Nov., pp. 86–91). Schwartz, Evan L.: Herreshoff Yachting Museum, Bristol, RI (Jan., pp. 122–123). Shope, Reno, Wharton: Shope, Reno, Wharton:

ton offices, Greenwich, Ct (Sept., pp. 211–213).

SITE: Savings and Loan Bank prototype, South Dakota (Jan., pp. 126–127).

Skidmore, Owings & Merrill: Firm profile and portfolio (May, pp. 138–149); Capital Center, Providence, RI (Jan., pp. 94–95); Yanbu New Community, Saudi Arabia (Jan., pp. 96–97); Haj Air Terminal, Jeddah, Saudi Arabia (Jan., pp. 120–121); Menninger Foundation, Topeka, Ks (Jan., pp. 156–157). Smith, Thomas Gordon: Tuscan House, Laurentian House, Livermore, Ca (Oct., pp. 98–101).

SOL-ARC (see ELS Design Group); Solar Duplex, Berkeley, Ca (Apr., pp. 132–133). **Sorkin, Michael** (see James Hong).

Spiker/Taylor: American Honda office, Washington, DC (Dec., pp. 90–91).

Steidle, Otto, & Partner with Vladimir Nikolic: International Meeting Center, University of Berlin (Apr., pp. 150-153).

Stirling, James, and Wilford & Associates with Ambrose & McEnany: School of Architecture, Rice University, Houston, Tx (Dec., pp. 53-61).

Stern, Robert A.M.: pool house, Llewellyn Park, NJ (Oct., p. 107).

Strickland, William (see McNaughton, Biery, Toups, Lemann),

Studio Laboratorio di Architettura, and Tekne VRC: Euromercato Brianza, Paderno Dugnano, Italy (July, pp. 98–99).

Studio Works: Gagosian Studio, Venice, Ca (Feb., pp. 86–89); South Side Settlement, Columbus, Oh (Feb., pp. 78–85).

Swaney Kerns Architects and Robert Barker Anderson: 1915 Eye Street, Washington, DC (Jan., pp. 150-151).

Taft Architects: Hendley Building, Galveston, Tx (Feb., pp. 94–95); Talbot House, Nevis, W.I. (Oct., pp. 98–101).

Taller de Arquitectura/Ricardo Bofill: Sanctuary of Meritxell, Andorra (Mar., pp. 110–113); Le Viaduc and Les Arcades du Lac, Saint-Quentin-en-Yvelines, France (Oct., pp. 94–97).

Tekne VRC (see Studio Laboratorio di Architettura).

Terry, Quinlan: discussion of his work in and around London (Oct., pp. 84–87).

Thompson, Benjamin, & Associates: South Street Seaport, Faneuil Hall Market Place, Harborplace (July, pp. 100–106).

Van der Ryn, Calthorpe & Partners: Marin Solar Village (Jan., pp. 100-101).

van Dyke, Harry: Frick Collection addition, New York (Oct., pp. 78–79).

Varner, Marion J. (see Charles Kober Associates).

Venturi, Rauch & Scott Brown: Historic Jim Thorpe, Pa (Jan., pp. 98–99); country house modeled on Mount Vernon (Oct., pp. 106).

Wagenknecht, Lynn (see Brian and Keith McNally).

Walker, Scott (see Philip Maberry).
Warwick, Jonathan (see Roger Ferri).
Wilford & Associates (See James Stirling).
Woo & Williams: Jordan Pond house, Mt.
Desert Island, Me (Jan., pp. 128–129).

Zambonini, Giuseppe: Loft 2, Broadway, New York (Sept., pp. 180–181); Zambonini Loft, New York (Sept., pp. 176–179).

Technical editor

Progressive Architecture has an immediate opening for a person with background in architecture and building technology to fill the position of associate editor in charge of technical articles. Responsibilities will include generating and editing technical features and collaborating with editorial staff on other articles and issues. Skills in research and technical writing essential. Familiarity with building products, specifications, and detailing necessary. Previous journalistic experience not required. Opportunity to direct critical information resource for architectural profession. Salary negotiable. Reply to Box 1361-379

Progressive Architecture
600 Summer Street Stamford, CT 06904

bee the entire collection at our showrooms, or write on your letterhead for our new catalogue. Or design your own fixture.

We'll do the contract work.

We do it all. And we do it here in the U.S.A.

OF MODERN LIGHTING

Circle No. 333 on Reader Service Card

940 Third Ave., New York 10022 Pacific Design Center, 8687 Melrose Ave., Los Angeles, Calif. 90069 0044 World Trade Center, Dallas, Texas 75258 1245 Merchandise Mart, Chicago, Illinois 60654 Galleria Design Center, 101 Kansas Street, San Francisco, Calif. 94103 C423.2 Commerce Wing, Southern Furniture Center, High Point, N.C. 27261



Job mart

Situations Open

Architect—Job Captain—Excellent professional opportunity offered by quality San Francisco firm to proven Job Captain w/min. 5 years Type 1 high-rise/office building experience. Must be skilled in executing production documentation. Excellent compensation and benefits. EOE M/F. Submit resume to: Vicki Shannon, Robinson Mills & Williams, 153 Kearny Street, San Francisco, Ca 94108.

Architectural Draftsman/Designer—Individual with a professional Bachelor of Architectural degree, 2 years experience in architectural drafting and 6 months construction work experience (any trade). Applicant must be skilled in drafting and experienced in renovation work. Send resume to Sanders/Morrison Associates 1255 Fourth Street, S.W., Washington, DC 20024.

Architectural Marketing—National A/E firm is seeking a Marketing Director for our Iowa City, Iowa, Chicago, Illinois and Orlando, Florida offices. We specifically desire an individual who has demonstrated results in marketing architectural services for large scale medical, commercial and industrial projects who is looking for an opportunity to grow and is willing to assume responsibility for being involved with the dynamic and growth oriented firm. We offer a full benefit package and salary commensurate with experience. Contact Glenn Mac Pherson at (319) 354-4700 or send resume in confidence to Hansen Lind Meyer, P.C., P.O. Drawer 310, Iowa City, Iowa 52244. EOE/MF.

Assistant Professor: The School of Architecture at Washington University in St. Louis is seeking applications for a position at the Assistant Professor level on a nine month basis for the academic year 1982-83. Appointment to this position will be on an annual basis and on the tenure track. The appointment requires teaching architectural design studios plus a lecture course or seminar in a specific area of interest of the appointee. A first professional degree in architecture is required; however, a graduate degree is preferred. Architectural office experience is highly desirable. Previous teaching experience will also be considered. Please address applications including curriculum vitae, a statement of intention, and recommendation letters to Dean C. Michaelides. Applications should be received by January 25, 1982. A portfolio with samples of work and any other pertinent material should be available if called for Washington University is an Equal Opportunity/ Affirmative Action Employer.

Chairperson—Department of Design, College of Visual and Performing Arts, Syracuse University to provide professional and academic leadership for internationally recognized Industrial and Interior Design Programs. Graduate degree and some teaching preferred with minimum ten years professional experience. Work should show proficiency in design and administration, a record of publication and professional recognition, and an ability to participate as a team member in an interdisciplinary environment. Resume, references

Employer.

Dean, College of Architecture, Arizona State University. Arizona State University invites applications or nominations for the position of Dean of the College of Architecture. ASU, a major, urban research university located in the Phoenix metropolitan area, consists of 11 colleges with a total student enrollment of 38,590. The College includes the academic departments of Architecture, Design Sciences, and Planning offering graduate programs in Urban and Regional Planning, Architecture, and Energy Planning and Technology and undergraduate programs in Interior Architecture, Industrial Design, Housing and Urban Development, Urban Planning (including Landscape Architecture), and Architecture. There are 70 faculty members, including 30 part-time faculty. Enrollment in the College is currently 1,032 students. The Dean is responsible for promoting research, teaching, and service excellence, managing financial resources, and representing the College within the University and in the community. Candidates should possess an advanced degree or equivalent professional qualifications in one or more of the fields represented in the College. It is expected that applicants will have previous administrative experience and have demonstrated pro-fessional and/or academic leadership. The preferred starting date is July 1, 1982. Salary is competitive. Nominations and self nominations are encouraged. To insure consideration a letter of application, resume, and names of at least four references should be received by January 5, 1982. Send nominations and applications to Dr. Mathew J. Betz, Chair, Dean Search Committee, Office of the Academic Vice President, Arizona State University, Tempe, Az 85287. ASU is an Equal Opportunity, Affirmative Action Employer.

Dean of the School of Architecture-The University of Maryland at College Park is seeking a Dean for the School of Architecture to be appointed July 1, 1982. Applicants must have academic and professional qualifications that will satisfy the requirements of a tenured appointment. The School is presently moving from a five year B. Arch. program to a 4+2 program (B.S. in Architecture/M. Arch.). In addition, the School offers a 4 year B.S. in Urban Studies as well as a second professional degree (M. Arch.). The School has approximately 280 students and a faculty of 27. Send vitae and names of three references to Dr. Robert E. Menzer, Chairman, Search Committee, Division of Arts and Humanities, University of Maryland, College Park, Md 20742. The closing date for applications is January 15, 1982, extended from the earlier announced date because of administrative difficulties. The University of Maryland is an Equal Opportunity/Affirmative Action Employer; women and members of minority groups are encouraged to apply.

Director—Architecture Program—Barnard College seeks full-time Director of Architecture Program, beginning September 1982. Program is offered cooperatively with Columbia College and the Graduate School of Architecture & Planning, Columbia University. Teaching experience in design, drafting and/or graphics & some administrative experience is desired. Send application by January 1, 1982 to: Dr. J. Gora, Chairman, Architecture Search Committee, Office of Academic Affairs, Barnard College, 606 W. 120 St, NY, NY 10027. Equal Opportunity Employer.

selecting and acquiring development sites, conducting feasibility analyses and marketing research, and directing sales for development projects. Duties also include architectural design and construction administration of development projects. The position also involves working with appropriate government agencies to obtain zoning and financial support, working with banks and other lending institutions to obtain financing for projects and forming partnerships to finance and manage the development projects. Applicants must have a master's degree in architecture and at least two years of experience as an architect or urban developer. This position involves forty hours per week and a salary of \$23,000.00 per year. All qualified and interested personnel should apply at the nearest office of the Texas Employment Commission or call 214-631-6050. The TEC job order number for this position is 220 3415. This ad is paid for by an Equal Opportunity Employer.

Retail

DIRECTOR of STORE PLANNING

FedMart, one of the sunbelts leading retailers, has a position available for a Director of Store Planning. This is an exciting opportunity for a degreed architect; with retail design experience highly desirable. California license is a prerequisite.

Specific areas of expertise should include: interior layout; building design and construction; graphics and decor; and fixture design. This individual will work out of the San Diego Headquarters. We offer salary commensurate with experience.

If you wish to pursue this challenging retail career, send your resume with salary requirements to:

FedMart*

America's greatest general store

Corporate Office 3851 Rosecrans San Diego, CA 92110

An Equal Opportunity Employer

Faculty: The Department of Civil and Architectural Engineering at the University of Wyoming is seeking a candidate to fill a full time faculty position in the Architectural Engineering program beginning Spring Semester, 1982 (January), or Fall Semester, 1982 (August). Required are Master's degree in Architecture or Ph.D. in Engineering or Professional Degree and extensive practice. Teaching experience at college level and the undergraduate program include (a) building materials and construction methods, (b) architectural illuminaton, (c) junior and senior ar-

chitectural design, and (d) specifications and estimating. Appointment will normally be made at the level of Assistant Professor for the two semester academic year. Candidates should send applications and resume to Arthur P. Boresi, Department of Civil and Architectural Engineering, University Station Box 3295, Laramie, Wy 82071.

School of Architecture Vacancy Announcement

The School of Architecture and Environmental Design at Kent State University invites applications and nominations for the position of Director of the School. The School has a total enrollment of 500 undergraduate and graduate students with a faculty of seventeen. The School offers a four-year nonprofessional degree, a five-year professional Bachelor of Architecture degree, and a six-year Master of Architecture program. The later two degrees are fully accredited by the National Architectural Accrediting Board.

Candidates should have suitable profes-

Candidates should have suitable professional and educational credentials with abilities in administration, teaching, research, and practice. Twelve month contract; salary commensurate with qualifications and experience. Kent State University is an Equal Opportunity/Affirmative Action Employer. Application deadline is January 15, 1982. Send applications and nominations to:

Dr. Stuart Schar, Chair Architecture Search Committee-School of Art-Kent State University-Kent, OH 44242

School of Architecture at Washington University in St. Louis is seeking applications for a visiting position for the nine month academic year 1982–83. This position may be filled at the Assistant, Associate or full Professor level depending on qualifications and presently held rank. Appointment to this position requires teaching courses and seminars in architectural history and theory. Background in American History of Architecture as well as in Historic Preservation is highly desirable. Interest in architectural reviews and criticism is also important. Please address applications including curriculum vitae, a statement of intention, and recommendation letters to Dean C.

Michaelides. Applications should be received by January 25, 1982. Additional material such as article reprints should be available if called for. Washington University is an Equal Opportunity/ Affirmative Action Employer.

The University of Maryland School of Architecture is seeking teacher-architects at the rank of assistant or associate professor for several open positions on the design faculty. The School is in-terested in persons committed to excellence in the realization of architectural concepts and to the advancement of environmental ideas through teaching, writing, and practice. The School is seeking persons to teach one studio course and one additional course per semester; some administrative work will also be expected. The ability to teach courses in the following areas will be given special preference: construction, professional practice, site design, and visual analysis. The positions open in August, 1982. Applicants who have professional experience, hold a Masters' degree, and have professional registration in hand or actively in progress will be given preference. Applicants should send resume and brief illustration of work Search Committee) School of Architecture, University of Maryland, College Park, Md 20742, before 15 February 1982. The School of Architecture ture has an active practice-oriented faculty, and is at the center of the architecturally and culturallyrich Washington, DC and Baltimore metropolitan area. The University of Maryland is an Equal Op-portunity Employer, and is interested in female and minority applicants.

Wanted

Architectural Firm—Buyer: Firm established over 20 years. Southern California, currently 5 people for a time averaged 8–16, strong higher education, schools, retirement, navy, libraries, other mixed. Principal stay part time. Box 1361-387, Progressive Architecture.

Pennsylvania Architectural Firm: Interested in being acquired with or without management in place. \$1,000,000.00 + annual fee track record. Outstanding opportunity for expansion in or into Pennsylvania, or for young aggressive architect interested in his/her own practice. Reply to Box 1361-388, Progressive Architecture.

Services

ARCHINFORM: Architectural Registration. Study Information on NCARB Qualifying Test, Professional Exams, Oral Exams & New Calif. Written Exams. Books & Seminars. Free Brochure. P.O. Box 27732, L.A., Ca 90027, (213) 662-0216.

Architectural Construction Documents, Specifications, Construction Administration and Management...all do inhibit your design talent. Our construction expertise and in-depth experience in commercial and institutional projects guarantees timely and technically outstanding results. You design—we offer to do the rest. The Breit Group International, Architects, AIA, 7514 Burgoyne Suite 326, Houston, Tx 77063.713-783-4085.

Architectural scale models—of distinction for the ultimate display. Model construction by leading craftsman in the field of miniature replica fabrication. Excel in your presentations and displays, for maximum intensity. For more information call or write today. Models By Lynn. Reply to Box 1361-389, Progressive Architecture. Phone: 307-548-6131.

Exceptional opportunities for architects with expertise in design, or Production Mgt, Specifications, Marketing, etc. on medical, criminal justice, commercial development projects. Our clients are nationwide. We are active in AIA, and maintain a Dallas office to serve the S.W. Respond to: William E. Engle Assoc., Inc. 909 Investors Trust, Indpls., In 46204. 317-632-1391 (24 hr.)

How to Specify Welding Gas Piping: Free specifying information on welding gas piping for industrial plants, schools and other projects. Will assist in determining pipe sizes and placement of manifolds, regulators, shut-off and relief valves. Rexarc, Inc., P.O. Box 47, West Alexandria, Oh 45381. (513) 839-4604.

International Search and Placement by the leading agency for design professions. Ms. Woody Gibson has directed architecture and interior assignments exclusively since 1970. Please inquire about the range of services available. RitaSue Siegel Agency, 60 W. 55 St., NYC 10019, 212-586-4750.



1033 Massachusetts Avenue Cambridge, Massachusetts 02238

Notice

Please address all correspondence to box numbered advertisements as follows:

Progressive Architecture % Box 600 Summer Street Stamford, Connecticut 06904

THE PENNSYLVANIA STATE UNIVERSITY

Dean of the College of Arts and Architecture and Director of the University Arts Services

The Pennsylvania State University seeks nominees for the position of Dean of the College of Arts and Architecture and Director of the University Arts Services. The College offers programs in architecture, art history, art, landscape architecture, music, and theatre and film. In addition, the College bears responsibility for general education in the arts at University Park and at the University's seventeen Commonwealth Campuses throughout the state. In 1981-82 the College had an enrollment of 1,290 full-time baccalaureate and 174 graduate students served by 127 full-time equivalent faculty at University Park and 14 faculty on the Commonwealth Campuses. Total annual student enrollment in courses taught by Arts and Architecture faculty in the 1980-81 year was 26,690. The University Arts Services encompasses the University Artists Series, the Museum of Art, Auditorium Management, and University Theatre. These professional programs and services intend to enhance the cultural and artistic life of the university community and the citizens of the Commonwealth. The 1981-82 budgets were \$4.7 million for the College and \$1.2 million for Arts Services.

As the principal academic leader and administrative officer of the College and Arts Services, the Dean and Director will be responsible for the general management of budgets, facilities, programs, planning, and personnel. The Dean will be expected to formulate and recommend for approval by the Provost and President a plan which defines the areas of the College's operations and establishes goals and standards of performance for each area. The Dean shall present and justify requests for resources to fulfill the College's plans. The Dean and Director must regularly evaluate the work of the College and Arts Services and the performance of the faculty and staff.

The Dean and Director reports directly to the Provost of the University and serves as a member of the Council of Academic Deans, a principal advisory group to the Provost and President.

The criteria for appointment shall include:

- 1 Demonstrated competence and those academic or professional credentials appropriate for appointment as Professor within a department or school of the College.
- 2 Prior experience at a significant level of responsibility for the administration of an academic or cultural organization.
- 3 A demonstrated ability to set goals, organize tasks, supervise people, manage budgets, cultivate innovation, and raise funds
- 4 A commitment to the philosophy and responsibilities of a large, public university.

In addition to the above criteria, the Search Committee places a high priority upon the qualities associated with intellectual leadership, imagination, achievement, and a strong commitment to high standards in the arts.

Candidates should be available for assignment at University Park no later than July 1, 1982 and preferably earlier. Nominations and letters of application (with resume) should be sent by January 6, 1982 to:

Professor Louis P. Inserra, Chairman Arts and Architecture Dean Search Committee The Pennsylvania State University 205 Old Main — BOX K University Park, Pennsylvania 16802

The Pennsylvania State University is an affirmative action, equal opportunity employer

Advertisers

J. Walter Thompson Co.	- 11
American Telephone &	I
Telegraph Co	I
Amoco Fabrics Co	
Andersen Corp	J
Armstrong	Jo
A + U Publishing116	K
Bradley Corp	K
Concrete Reinforcing Steel Institute 42 Marsteller, Inc.	K
Computer-Aided Engineering116A	K
Da-Lite Screen Co., Inc	K
Delta Air Lines	L
Donn Corp	L
Dover Corp., Elevator Div32, 33 Caldwell/Bartlett/Wood	
duPont Co.—Roofing Membrane 47 N.W. Ayer, Inc.	N N
Eastman Chemical Products, Inc.—Plastics Products Div. 44 Geers Gross Advertising, Inc.	N
Eljer Plumbingware, Div. of Wallace Murray Corp	C
Fairfax County, Va 46 The Cooper-Lecky Partnership	P
Follansbee Steel Corp111 Group Marketing &	P
Communications, Inc. Forms & Surfaces	P
Four Seasons Solar Products Corp 36 Four Seasons Advertising	R
Gail Ceramics	R
Glidden Coatings & Resins, Div. of SCM Corp	R
Hickman, W.P. Co	S
John H. Rosen Advertising, Inc.	S

American Cas Association

107

Inryco, Inc	.3
Insoport Industries, Inc 2 Phoenix Graphix	24
Interface Flooring Systems40, 4 Green & Burkhard	1
JG Furniture Systems 9 Design Services	
Johnson Controls, Inc	25
Kawneer Architectural Products 4 Garrison, Jasper, Rose & Co.	15
Garrison, Jasper, Rose & Co. Kenney Mfg. Co	8
Knoll International	23
Koch & Lowy	
Koppers Co., Inc	20
LCN Closers	18
Litton Business Furniture/LBF50, 5 Donovan and Green	
Marble Technics Ltd	13
Mayline Co	
MIT Press	
Monsanto Plastics & Resins Co	37
Otis Elevator Co	14
Pennsylvania State University15	35
Progressive Architecture Bookstore	27
Progressive Architecture Furniture Competition15,	16
Red Cedar Shingle & Handsplit Shake Bureau	13
Cedarcrest Advertising	
Rixson-Firemark Div	
Robertson, H.H. Co	99
Stanpat Products, Inc	
Stolle Corp., Sub. of Aluminum Co. of America	15
Tamko Asphalt Products, Inc S	39
Tubular Specialties Mfg., Inc10 Arlen J. Kuklin)6
United States Steel Corp	03
United Technical Products, Inc1	10
Ventarama Skylight Corp	21

Wilson, Ralph Plastics Co. 52

McKone & Co., Inc.

Advertising Sales Offices

Stamford, Connecticut 06904:600 Summer Street
P.O. Box 1361 203-348-7531

James J. Hoverman Vice President & Publisher

Francis X. Roberts, Charles B. Selden, Lester W. Kent, District Managers

Chicago, Illinois 60601: 2 Illinois Center Bldg Suite 1300 312-861-0880

Tony Arnone, James L. Hobbins, District Managers

Cleveland, Ohio 44113: 614 Superior Ave W 216-696-0300 John F. Kelly, Western Sales Manager

Los Angeles, CA 91436: 16255 Ventura Blvd, Suite 301 213-990-9000 Philip W. Muller, District Manager

Atlanta, Georgia 30326: 3400 Peachtree Road, NE-Suite 811 Lennox Tower 404-237-5528 Anthony C. Marmon, District Manager Harmon L. Proctor, Regional Vice President

Houston, Texas 77401 5555 West Loop South, Suite 505 713-664-5981 Calvin Clausel, Director Southwest Operations

United Kingdom Reading, RG10 OQE, England Wood Cottage, Shurlock Row (073 581) 302 Cables: TEKPUB, Reading Malcolm M. Thiele Managing Director, U.K.

Tokyo, Japan 160 Bancho Media Service 15 Sanyeicho, Shinjuku-ku Genzo Uchida, President

Paris, France
Continental Europe
18 rue Gounod, 92210
St. Cloud, France 602-24-79
Yvonne Melcher, Manager

Orvieto (TR), Italy % Marcello, La Torretta (United Kingdom) 73-581-302 Brad Nichols, Representative