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required by the double-plate glass wall. A lot of money and a lot of energy to run that equipment.

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Cover: Wood St. façade of Colonial Trust Building, Pittsburgh, Pa. (p. 76). Drawing by Rodolfo Machado. Design integrity and costs are both better controlled when you specify Wilson Art for decorative surfaces.



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Views

Editorial

I just returned from the AIA Convention in Washington D.C., and while pushing through reams of letters and magazines built up through the week, I had an opportunity to glance at the editorial, "A humane architecture?" (P/A, May 1974).

Congratulations! My experience follow-

ing through the vast network of completely over-rated buildings and quasi-monuments left me completely in accord with your comments. It is damned unfortunate because, of all the arts in this country, architecture is the most inescapable. I sincerely hope we learn to understand better what a humane architecture is from this bitter experience.

Louis A. Rossetti, AIA, President Rossetti Associates Inc. Detroit, Mich.

Your May editorial—absolutely on target! Our Advisory Panel has critiqued a number of major Federal complexes in and outside the Washington, D.C. area, and has generally found them to be over-scaled, over-



...about better shape conformation, he probably would have specified Gates CONTOURFLASH

But, nobody told him. Besides that, the CONTOUR-FLASH flashing system wasn't around yet. There wasn't even any available literature to tell King Tut how CONTOURFLASH fits any surface shape or irregularity... or how tough and watertight it is... or how it hot mops into built-up roofing ... or how it accommodates movement. So, like Tut, when you're all wrapped up in details and specifications, and need to know how to handle those critical perimeter areas, roof openings, and expansion joints ... remember CONTOURFLASH. This system is just one of many products and systems available from Gates Engineering for roofing, membraning and waterproofing ... plus sealants, caulks, adhesives, total systems performance, in-field service. If Tut had been told, he would have clipped the coupon and sent for his tree literature.

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monumental and lacking in humanistic elements. Charles Weymouth, AIA, Chairman Regional Advisory Panel U.S. Federal General Services Administration Wilmington, Del.

Louis Kahn

One of the many things that deserve to be said of the late Louis Kahn is that he inspired a eulogy (Romaldo Giurgola, May 1974 P/A) which was fully worthy of him. Robert H. Mutrux, AIA Fletcher-Thompson Inc. Bridgeport, Conn.

House III

With the passage of time I have become increasingly incensed at the unending stream of freak "architecture" published by P/A. Much of it is an insult to the intelligence. The last straw was "House III" in the May 1974 issue. With this you can bet your sweet ass that I have had it. Kindly cancel my subscription. *Albert E. Millikin, AIA Kingston, N.Y.*

It is amazing that you find it fit to publish Peter Eisenman's House III. Peter displays the arrogance toward his client that I, as a young architect/owner of a new firm, find disgusting. I couldn't believe it when I read the owner's comments that the house: 1) came in for double the price; 2) took double the construction time; 3) is environmentally inadequate; 4) has inadequate detail design re cracks, leaking.

If this was one of my clients, I would face a lawsuit! This is the type of article which is driving single family clients from architects. My clients *can't* come up with double the money, and really, should they?

Peter has created a monument to his ego. This should not have been published! Richard K. Redemske, AIA Atelier Architects

Barrington, III.

[Peter Eisenman's House III is obviously experimental, in terms of design. P/A made that abundantly clear, and in no way do we advocate such experiments for all singlefamily house clients. In his own words, this client explained what rewards the house held for him to offset those technical shortcomings. Rather than a monument to the architect's ego, as so many houses are, this one could be seen as evidence of one client's willingness—and ability—to be a patron of experimental design. Ed]

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News report



Parties . . .

AIA takes middle road

The American Institute of Architects' convention in Washington, D.C. had few, if any, surprises. Feelings ran neither hot nor cool, and there were no tumultuous business sessions. Even the final meeting ended only a reasonable halfhour behind schedule. The most far-reaching bit of action taken was changing the dues structure to make payments more equitable among members. That, too, sailed by with barely a ripple of opposition. Otherwise, the convention approved 4 other by-law changes, adopted 16 resolutions, defeated 4, and heard reports on energy policy, housing policy, and the status of women in architecture.

Mayor Tom Bradley of Los Angeles at one point seemed unable to give his keynote address due to the weekend SLA shootout, but after all he arrived and received a standing ovation. He also reiterated the old, but sound, argument that while the national administration declines to establish a growth policy on cities it perpetuates a *de facto* policy. "No decision is a decision." He mentioned that urban conservation by the National League of Cities, of which he has been president, parallels recommendations in the AIA's policy. Bradley's address took exception to some points in the six-[continued on page 18]



Structures



Honors . . . AIA photos: William Ganslen. Upper right: John Dixon





Splendor ...

Talks ... Bradley, Rogers







Exhibits . . .



Socials . . .



Music .







Meetings . . . Orlov (left)

Fun . . . Food .



News report continued from page 17

month-old National Growth Policy report of the AIA. His criticism is that it ignores local governments, which Bradley feels are "closest to the problems and the people."

"A Humane Architecture" was the focus of the convention, and during the long meetings in the Sheraton-Park Hotel, air conditioned by chilly drafts bearing wafts of tobacco smoke, there was ample time to reflect upon the urgency of the theme. For several dozen wheelchair participants, the inaccessibility of elevators and restrooms demonstrated the need for barrier-free design.

In the opening theme session, John Eberhard, president of the nearly year-old AIA Research Corporation, spoke of seeing a thrilling televised performance of Verdi's Requiem Mass from St. Paul's Cathedral in London. "Is there any reason to believe," he asked, "that by study or analysis we could add to the beauty of that event?" Obviously not, so why bother to advocate, as he does, research and planning to make buildings more humane? Because events like the Mass are exceptions, and "life has thousands of lesser experiences that are only occasionally accented with these special events."

Among the AIA's research projects he mentioned are assisting the federal government on designing housing criteria for the flood plains; reporting to the Ford Foundation on energy conservation, and working with the National Bureau of Standards in establishing a chair of architecture.

The substance of remarks by the other speakers was obscured unfortunately by bland and difficult-to-follow delivery styles. Judith Roeder, chief planner with the Pittsburgh Department of Planning, made a point deserving attention: that "papers written by social scientists reporting on the effect of the physical environment on behavior . . . are difficult to read and, even worse, impossible to generalize from." Ted Liebman, who is chief architect of the New York State Urban Development Corporation, discussed (with charts few could read) the methodology of his group's design process—from planning to building to follow-up; team members even live for a week or two in the finished projects. Liebman praised the compact organization and small scale of European communities. "I wish we could say the same of the United States," he stated.

David Todd, FAIA, of New York presented highlights of the report on national housing policy. Todd defended the AIA's involvement in this area, even though some members question what it has to do with architecture, stating that the language of housing policy always involves such words as "decent" and "suitable," and asking who determines what these mean, if not the architect.

The three host chapters—Washington Metropolitan, Baltimore, and Potomac Valley—provided gracious Southern-style hospitality, albeit by the hour of the grand finale ball a crowd was hard to find. Only half the anticipated number turned up the night before at the gala, two-band supper-dance in the Pension Building, leaving untouched platters full of roasts, sweets, and seafood.

A distinguished Russian architect, Georguim Orlov, president of the International Union of Architects, made an unscheduled appearance at the opening session and was given honorary fellowship in the Institute.

On Site, arise

Into the darkness between art and architecture comes a new publication shooting warm and penetrating rays. *On Site*, published by Site, Inc. the nonprofit foundation in New York concerned with the quality of the urban visual environment, has grown from a newsletter two years ago to a literate and profusely illustrated magazine. It now seeks subscriptions. Editors Alison Sky and Michelle Stone describe *On Site* as "an idea catalyst, presenting advanced thought on all aspects of public space." That is, to give the artist an architectonic role in the environment, to expand traditional definitions of plastic and graphic arts, and to promote discussion among architects, planners, and artists.

On Site No. 4 deals with perception and features essays by Juan Downey, Peter Eisenman, Robert Smithson, Alan Sonfist, and James Wines. *On Site No. 5/6*, a study of energy's implications for urban society, will include contributions by Denise Scott Brown, Lawrence Halprin, Edward L. Barnes, Paul Friedberg, Percival Goodman, and Lewis Mumford. *On Site No. 4* is \$2; a tri-annual subscription is \$7, available from Site, Inc., 60 Greene St., New York, N.Y. 10012.

Louis de Moll-AIA President in 1976

Louis de Moll, FAIA, of Philadelphia, was elected first vice president of the AIA at its Washington, D.C., convention in May which means that de Moll will take over as president of the Institute in 1976. He will succeed in that office William (Chic) Marshall Jr., FAIA, of Norfolk, Va., the current first vice president who will head the organization during 1975.

De Moll's bid for the post was unchallenged, and he was elected by acclamation. He presently is one of three vice presidents on the board and is chairman of the Commission on Institute Affairs. He also has served on numerous task forces of the AIA. In Philadelphia de Moll is chairman of the board of Ballinger, Architects and Engineers, and has received several design awards for buildings and urban development projects.

AIA elects vice presidents, secretary

Elmer E. Botsai of San Francisco, Calif., Carl L. Bradley of Fort Wayne, Ind., and John M. McGinty of Houston, Texas, have been elected vice presidents of the AIA. They were elected from among six contenders for the three posts. McGinty is currently serving as vice president.

The incumbent secretary, Hilliard T. Smith, Jr., of Lake Worth, Fla., was re-elected over his opponent, Jeffrey E. Aronin of New York.

Botsai, who previously has served as treasurer, was a controversial figure in this year's election for his voiced opposition to employment of women architects.

Also running for vice presidential offices were Mark A. Pfaller of Milwaukee, Wis., Darrel D. Rippeteau of Watertown, N.Y., and Robert L. Wilson of Stamford, Conn.

Wedding gift for Miami

St. Petersburg Mayor C. Randolph Wedding, AIA, who also is a well-known Florida architect, presented a grant to the University of Miami's architecture and architectural engineering department, and associate dean Ralph Warburton has announced the grant will be used for a design competition. Fourth-year-students will be eligible to submit entries to the [continued on page 20]



Going . .







Gone. Demolition of Traymore Hotel in current On Site Photos: Michelle Stone News report continued from page 19



Winning cover, award







Wind converter Photo: NASA

\$50,000 demonstration



AIA group at gateway to Forbidden City

competition, which will be for the new Dade County Public Library in downtown Miami. University professors, library officials, nationally prominent architects, and Wedding will constitute the jury.

P/A receives awards

Progressive Architecture's art director Joel Petrower has received the silver award from the Society of Publication Designers for the September 1973, cover of P/A. The theme of that issue was lighting design, and the cover showed a classical architectural etching by Giuseppe Bibiena over which a spotlight effect was superimposed. This is the third consecutive year Petrower and P/A have received the award. The magazine was judged from among 3000 entries and was one of only five trade publications to receive awards. An exhibition of 450 of the entries was on display during the time of the awards presentation in New York, and a black and white feature spread on urban preservation by editor James Murphy was included in the exhibit and won a certificate of merit.

Blowin' in the wind

Not to be outdone by solar power, advocates of wind power have come up with an answer to convert gusts and breezes into electricity. The Vertical Axis Windmill—resembling half an eggbeater—stands 15 feet tall and has two 14-ft-diameter blades which rotate in almost any wind. The device is designed to operate on top of a single-family home and would produce enough electricity for the dwelling. The converter and how to adapt it for power storage on windless days is being studied by the National Aeronautics and Space Administration at the Langley Research Center, Hampton, Va., where a prototype is in operation. NASA estimates the windmill would cost from \$500 to \$1000.

Banking on restoration

Special loans and savings certificates have been instituted by the First National Bank of Louisville, Ky., to foster historic preservation—especially that of the cluster of cast iron buildings in the landmark-status Old Main Street area. The bank itself will demonstrate how a typical \$50,000 loan can restore an old building by undertaking the renovation of a 140-yearold commercial structure which afterwards will be donated as a Bicentennial Information Center. First National has committed \$1 million toward the loan fund, which has interest rates 25 percent less than usual improvement loans. The Bicentennial Savings Certificates will enable investors at high interest rates to designate their savings for restoration.

U.S. architects visit China

One of the most valued gifts a group of 14 architects from the U.S. took to China on a recent trip was a stack of American architectural books and journals including a copy of Sweets catalog. Chinese architects, said the returning Americans, are preoccupied with becoming self-reliant and are concentrating on technology. The three-week visit took place in April and was organized by former AIA president Max O. Urbahn of New York.

Although wives weren't allowed on the tour, Eileen Loo Pei made a concurrent trip and was able to join her husband, I.M., for a family reunion in Shanghai—the first in 25 years. All American requests were honored except for the sought-after [continued on page 24]

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News report continued from page 20

audience with Chou En-lai, a visit to Hangchow and a few restrictions placed on mobility and picture-taking. Later, during the tour, Hangchow was added to the itinerary, and the Americans were amazed to see there an intensive effort in which 9 million nearly mature trees have been planted: about 13 trees for every resident in the city.

According to Urbahn, most structures are bearing wall masonry low-rise buildings that preclude use of elevators. Craftsmanship is excellent—the fastest workmen laying bricks at about three times the rate of their American counterparts. While some urban buildings are monumental and nationalistic in feeling, current work is more austere and rational. Guest houses in each city were comfortable and well run. The trip was arranged with the cooperation of the Chinese Architectural Society, which is expected to make an exchange visit in the future. Said Daniel Schwartzman of New York, the Chinese architects didn't seem to comprehend the American's concern for aesthetics. "They're interested in shelter, and it's standard procedure for them to say they aren't satisfied with their achievements," he added. "They didn't ask as many questions of us as we did of them."

Washington report

Land use bill killed in House

In a complex parliamentary maneuver, the House of Repre-

sentatives in mid-June stopped an effort to revive the controversial land use bill (HR 10294) without actually debating the bill at all. The narrowly defined vote to kill (211–204) actually came on the "rule"—the procedure under which the bill would have been debated.

The House move ended for this session any further action on the proposal by Rep. Morris Udall (D-Ariz) to set up national standards for land use. The Udall bill (P/A, June 1974, p.30) nearly died earlier when the House Rules Committee refused to permit it to reach the floor. It was revived by an intensive lobbying effort sparked by AIA and other professional groups, as well as labor unions, the U.S. Conference of Mayors and major environmental organizations. A Senate-passed bill (S 268) is also dead, since the House will consider no companion measure.

The General Services Administration has announced it will begin immediately a three-year program to revise its methods of selecting architects and engineers. GSA will 1) require its regional public advisory panels to submit at least three candidates for award, with ranking in order of preference; 2) require the Administrator to explain his reasons, in writing, if he chooses any but the first-ranked firm; 3) prohibit members of the advisory panels from receiving any GSA contracts while serving; and 4) over a period of three years, begin to require the ranked firms to submit designs with their presentations of professional qualifications. GSA administrator Arthur Sampson said his agency "will be prepared to pay" for such design work, if required and that the number of panel members will be limited to three. [E.E. Halmos] [continued on page 26]



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Background, Prentice, Pelli, Meier, Graves; foreground, Lumsden, Moore, Stern, Vreeland; below, Eisenman. Photos: Erik Lerner



White, gray, silver, crimson

It would be difficult to imagine two more divergent conferences than the two architectural events that shared the opening week of May. At one end of the country, the Harvard Graduate School of Design and the Boston Globe sponsored a conference on "The Professions and the Built Environment" while UCLA was host to another kind of session altogether. In his opening remarks at UCLA, architect Peter Eisenman, referring to the Harvard meetings, said, "Those who are interested in ideas are here, and those who are interested in the management of ideas are over there." While things may not have been all that cleanly divided, the overall tenor of the conferences bore out what Eisenman said.

In California, however, "Four Days in May" (or "White and Gray Meet Silver") drew together a group interested in design ideas and intentions. Some of those attending applauded the fact that, even with the tight university budget, UCLA—and specifically Tim Vreeland—put together a powerful cast and an interesting program. Basically it was an assembly of Eastern architects (whites and grays) hosted by Western architects to discuss design—the aesthetic as related to visual perception and historical perspective. Everything else was ruled out of order.

While *the* definitive meaning of "whites" and "grays" has not been written, some guidelines about their respective characteristics are necessary. "Whites" include such names as Eisenman, Frampton, Graves, Gwathmey/Siegel, Hejduk, Meier, and Seligmann. Among the "grays" and Moore, Pasanella, Polshek, Robertson, Stern/Hagmann, Venturi/Scott Brown, and Weinstein. "Whites" seem to view architecture as high art; "grays" use symbols of popular art. Their differences are ideological, not formal; "whites" appear to believe in the capacity of form and space to mediate between the individual and his society/environment. This mediation is seen [continued on page 30]

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as idealistic rather than pragmatic, the ideas being an effect of Western cultural tradition originating in Europe.

"Grays" seem to see these ideas more in terms of a response to a specific program or function. They do not believe in the mediation role but in architecture as a representation in form of solutions to practical problems. Both "whites" and "grays" distinguish themselves from other architects by their higher level of concern for ideas and intentions.

The West Coast "silvers" don't really exist as a group, from their viewpoint. Still, the host spokesmen, including Cesar Pelli, Craig Hodgetts, Eugene Kupper, Tony Lumsden and, of course, Vreeland, contributed a great deal to the lively dialogue. Pelli feels that the examination of these architectural ideologies was extremely valuable, and that dogma and personal attack were never problems during the meetings. In his view "The conference was outstanding, not because of the issues it covered, but because so many practicing, first-rate architects would assemble to talk about architecture freely in front of others—and to open themselves up to questions."

Lecturers for the "whites" and the "grays" were Colin Rowe and Vincent Scully, respectively. Rowe supported the historical view of the "whites," but had to admit to feeling like a Marxist when confronted with so many large single-family houses. Scully discussed the "New Shingle Style" architects. In his lecture, he urged that lessons learned from the masters be taken from their early periods. The mistake of the "whites," he said, is in copying Corbu's high period (Villa Savoye), which is too complete to be developed further.

Others in attendance, to be sure, felt that all of the "whites" and "grays" (except Robertson and Weinstein) were "precious object-makers." There can be little doubt about the worth of the meetings, however; attendance was very high, interest was sustained, and those present were nearly unanimous in their enthusiasm. It is to be hoped that the proceedings might be shared with a still larger audience, either through publication or the videotaped records. While it seems to have taken outside pressure to get the "whites," "grays," and "silvers" together, there is hope for a reverse-host gathering in New York. Again, the dialogue would be fascinating. East-West communications being what they are.

Harvard began its sessions intent on anticipating future issues and problems in order to make the professions more responsive to change and more responsible for its management. That being a difficult task at best, it is inevitable that the focus of such a conference would be multidirectional. Beginning with the annual Gropius lecture, delivered this year by Serge Chermayeff, the Harvard events branched out into various issue areas addressed by members of several disciplines. Chermayeff regretted that the profession is remarkably resistant to change and not at all research-minded. He charged that many architects are still creating "photogenic palaces for extremely humble purposes." Of civic spaces like the Chicago Civic Center, Chermayeff speculated that still more of them will be suitable for only "one tree, one Picasso, and one [continued on page 32]

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News report continued from page 30

little old man with a brown paper bag." Our major problems need researching, he noted, including how to communicate with government and how to set priorities after a period of plenty. "We have enough form-givers," he said. "I hope that our shape-makers will, like old soldiers or the Cheshire cat, fade away along with their creations. I hope to see them replaced by problem-solvers."

Aldo Van Eyck of the Technische Hogeschool in Delft, who was scheduled to give one of the main addresses, failed to appear and was replaced by James S. Polshek, Dean and Professor at Columbia's Graduate School of Architecture and Planning. Polshek, too, took would-be form-makers to task including a group of "straw men—cannon fodder for historians." He also leveled charges at "technocrat imagists," "commercial technocrats" and "myth-makers." These comments, aimed at the creation of "whites," "grays," and "silvers," the developer-architects, and the prophet types, set the general mood of the conference. With some notable, but less pervasive, exceptions, the tone set was one of wishing.

On what he termed a reflective note, Alan Altshuler, Massachusetts' Secretary of Transportation and Construction, gave the opening address on "theory and reality in contemporary transportation planning." In comparing transportation planning approaches in the 60s' to those of the 70s', Altshuler pointed out that an increasing demand for public participation in planning activities has changed many things. In the 60s, it was "plan for," while the 70s brought "plan with." According to Altshuler, "The best plans seek to grasp the full array of consequences of all alternatives." He feels that an "aroused, diverse, and generally skeptical public" will continue to demand a thorough exposure to those alternatives. Architect Werner Seligmann, who participated in early Harvard sessions and later UCLA proceedings, felt that Harvard was a tremendous rehashing of things that architecture should be, but isn't. [JM]

Calendar

July 15–Sept. 15. Walter Gropius 1883–1969, photographic retrospective exhibition, American Institute of Architects Headquarters, Washington, D.C.

Aug. 7–9. Sixth National Conference on Electronic Computation, Georgia Institute of Technology, Atlanta.

Aug. 18–24. Thirty-second world congress of the International Federation for Housing and Planning, Vienna, Austria.

Aug. 31. Deadline for entries to P/A Awards Program. Aug. 31. Deadline for submissions to the 1974 Architectural

Awards of Excellence competition sponsored by the American Institute of Steel Construction, New York City.

Sept. 1–30. Visionary Projects for Buildings and Cities exhibition by Reginald Malcolmson, the University of Michigan Museum of Art, Ann Arbor.

Sept. 8–10. Sixth International Conference on Urban Transportation, Pittsburgh.

Sept. 8–14. First International Congress of Ecology, The Hague, The Netherlands.

Sept. 9–12. INFO 74, sponsored by the American Management Associations, the New York Coliseum, New York City. Sept. 11–12. Second Federal Design Assembly, Arena Stage

and Creeger Theater, S.W., Washington, D.C.

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Report from Malibu

The J. Paul Getty Museum at Malibu, near Los Angeles is a reconstruction of a Roman seaside villa destroyed by Vesuvius in A.D. 79 and excavated in the 18th Century, but the scholarship that went into the building no more accounts for the museum's popularity than the % scale of Disneyland explains the appeal of that fantasy world. The attraction may be attributed to two things: first, the museum is the only grand space on the west side of Los Angeles—except for the beaches; second, the building functions well as a museum.

The fascinating question is, How did Getty persuade architects and landscape architects to go along with his scheme of re-creating authentic-in-every-detail first century buildings and gardens? He went no farther than the office which planned the Getty Oil Company building in L.A., Langdon & Wilson.

The museum space is a controlled experience. The stroll along the peristyle court more than 300 ft long is a leisurely walk past a pool, the formal garden and illusionistic paintings on the walls of the colonnades. The closest Malibu's beaches come to a *trompe l'oeil* is a quick transformation when the fog rolls in on a hot afternoon.

In the peristyle garden, visitors gaze about momentarily transfixed. They peer at the paintings from a distance; move forward to touch the wall where columns are painted on and run their fingers over the painted shadows; then they return to the garden to enjoy the illusion. This act induces a sense of leisure and seems to hush the pressures of the present.

The museum is big, it is up—closer than the Hearst Castle and it's free. On 10 acres of floor space, the villa has 38 galleries and is built over a 200-car garage. The Romans would have approved of that. The collection of Greek and Roman antiquities is superb, and more illusionistic murals and marble designs (in marbles no longer quarried) delight the eye like a kaleidescope.

The inner peristyle and the atrium are the key to the naturalness of the sequence of the spaces. With the Papyri family home as a model, and borrowings from other plans and assumed façades there is an interweaving of roofed and unroofed spaces that move one naturally from enclosure into sunlight. The circulation is better than at the Pasadena Museum, where it's bad, or the Los Angeles County Museum. It's somewhat like the plan of the archeological museum in Mexico City which moves visitors back to the plaza as they walk from gallery to gallery.

Getty himself is as pleased with the museum as the several thousand school children and adults who flock there each week although Getty, who lives in England, hasn't seen it. "Why should we assume," he asks in a piece he wrote for the *Los Angeles Times*, "that art created in the first century would look better in a brand new modern building? It is an accepted museum procedure to build an environment for paintings or furniture. But instead of a room or two we are doing a whole building."

I can imagine the stir the offer of the commission caused in the office of architects R.E. Langdon and E.C. Wilson.

Landscape architect Emmet Wemple called his staff together before deciding to accept. Wemple became so fasci-





Photos: Richard Gross



nated with the horticultural detective work that he soon was into Pliny the Younger, Ovid, Catallus and ancient paintings of gardens. The search for plants which could be supported by history was on.

In Pliny they found ilex and arbutus. Often Wemple consulted Dr. Norman Neuerberg, professor and authority on the Roman house, about such items as a garden structure, fountain, and grotto, and the learned man went to his books and came up with precedents—if not in the Papyri Villa then in the House of the Faun. "He was our conscience," Wemple said. So went the passionate intellectual game in L.A. [Esther McCoy]



1 Photo: Randolph Langenbach





News report

Buildings on the way . . .

1 After months of intensive study and citizen protest, the Union Railroad Station in New London, Conn., by H. H. Richardson will be preserved as an up-to-date Amtrak station, multilevel restaurant, and office space. Architect-developer is Anderson Notter Associates of Boston which has a wide and varied background in adapting notable old structures for modern use. Instrumental in securing the station, listed on the National Register of Historical Places, was the Union Railroad Trust, a nonprofit group of local citizens.

2 The Woodbury County Courthouse (lowa) by Purcell and Elmslie fell on hard times when later "improvements"—false ceilings, institutional light fixtures, and laminated plastic—obscured much of the rich detail. A local architect was hired to further along repairs, but he proposed replacing the leaded glass windows with bronze-tinted panes. At that point the Siouxland Council of Arts and Sciences headed by architect Gene Beam convinced county officials to consider preservation, and recently \$400,000 was approved to restore the leaded glass.

3 Looking a little forlorn, as only a 55 million cu ft unwanted structure can, the Goodyear Airdock outside Akron, Ohio, is waiting for a realistic plan to put its massive interior to use. Meanwhile, the fact it would cost \$1 million just to tear it down helps keep the building intact. The airdock was built in 1929 at a cost of \$2.25 million to house two zeppelins during their construction. It encloses 8.4 acres of solid concrete large enough for seven football fields or the Chrysler Building lying down. (It's only a rumor that the hangar is so large it rains inside.) The two doors weigh 1200 tons each and take 5 minutes to roll open on their 40 wheels. Proposals that it be turned into indoor tennis courts, a mausoleum or a winter sports complex have not impressed the Goodyear Aerospace Corporation which maintains the airdock for storage and offices at a cost of \$300,000 a year.

4 Edgar Tafel of New York, who worked with Frank Lloyd Wright in the 1930s, is largely responsible for saving Wright's Northome House, a handsome specimen of the Prairie School. The library of the house was dismantled and will be re-assembled at the Allentown Art Museum in Pennsylvania in a 27,500-sq-ft extension designed by Tafel. The addition, which will also contain other rooms, is expected to open in early 1975. When Tafel learned the Wright house was to be demolished, he helped persuade the New York Metropolitan Museum of Art to buy it; the Met will keep the living room, and the bedroom hallway will be installed at the Minneapolis Institute of Fine Art.

5 Nearing completion in Minneapolis, Minn., is a nine-story shopping and office building renovated by Miller Melby & Hanson of Minneapolis from a warehouse done in 1906 by architect Harry W. Jones. The old Butler Brothers Building, renamed Butler Square, now is on the National Register of Historic Places. Renovating the interior for public use, a ninestory atrium has been created with every floor having full access to the opening. Wasteful corridors have not been included in the plan since offices share multiple-use spaces. Outside, the original rows of recessed windows have been re-designed to form veritical bands of glazing.




3 Photos: Courtesy, Goodyear Aerospace Corp.



4 Photo: Gil Amiaga









Photos: Peter Regis

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Progressive Architecture announces its Twenty-second Annual Awards Program. Awards will be made to U.S. and Canadian architects, designers, urban planners, other professionals and their clients for projects now in the design stage and scheduled to be under construction in 1975. Any building, group of buildings or urban planning project illustrating definite building proposals will be eligible. In addition entries in applied research for a client will be accepted from architects or others if they are applicable to the design or realization of specific facilities or programs and are scheduled to be acted upon within the calendar year 1975. Qualification of entries in any category depends on the fact that the work is commissioned by a specific client.

Purpose of the Awards Program is to recognize, at the critical early stages, outstanding examples of work being done in the fields that most directly affect the built environment. Recognition will be given to both the entrants and their clients.

First award, award, and citation designations may be given by the jury in any or all of the three broad categories: research; urban design and planning; architectural design. Entries will be reviewed for such factors as response to a client's program, site use and development, design excellence, conceptual advances, materials selection, and methods of implementation.

The jury: for the Twenty-second Awards Program, P/A has invited the following respected jury members: Michael Brill, President, Buffalo Organization for Social and Technological Innovation, Inc. (BOSTI), and Professor, School of Architecture and Environmental Design, State University of New York at Buffalo; Peter Chermayeff, AIA, Cambridge Seven Associates, Inc., Cambridge, Mass.: Lee Copeland, AIA, AIP, Dean of the College of Architecture and Urban Planning, University of Washington, Seattle; Partner, Joyce, Copeland, Vaughan & Nordfors: Peter Eisenman, AIA, Director of the Institute for Architecture and Urban Studies, New York; Clare Cooper Marcus, Associate Professor, Department of Landscape Architecture, University of California, Berkeley; Paul Rudolph, FAIA, New York; Joyce Whitley, AIP, Planning Principal of Whitley-Whitley, Inc., Cleveland and Chicago; Eberhard H. Zeidler, FRAIC, Partner, Craig, Zeidler, Strong, Toronto.

Judging will take place in Stamford, Conn. during September 1974. Winners of awards and citations will be notified immediately (confidentially) after the judgment.

Public announcement of the winning projects will be made at a presentation in January 1975 at a location to be selected. Winning projects will be featured in the January P/A. As in the past, P/A will arrange coverage of winning entries in news media, particularly in those localities of the award and citation winners. Winners must agree to provide illustrations reproducible in the press and to forward original material, including models, to P/A if requested. [continued on page 42]

P/A 22nd Annual Awards Program for projects not yet completed

in architecture, planning, and research

Submission requirements

1 All submissions *must be firmly bound*. Original drawings, actual models, or mounted exhibit panels won't be accepted, and no material is to exceed 11" x 17" in size. Each project is to be submitted under separate cover; 8" x 10" binders are preferred.

Entry form

Progressive Architecture 22nd Annual Awards Program

Please fill out *all* parts of this form and submit with each entry. Copies of this complete form may be used when submitting multiple entries. (Typewriter only, please)

í	
	Entrant: Address:
	Project: Location: Client: Category:
	Entrant: Address:
	Statement of Publication Rights: P/A has first rights to publish both the design and the finished project if it wins an award or citation (in the case of research studies, first rights to publication of the results) in the architectural press. The project is not yet completed, construction (or action on proposals) is scheduled to begin before the end of 1975.

SIGNATURE

Awards Editor Progressive Architecture

600 Summer Street, Stamford, Conn. 06904

Your submission has been received and assigned number

Entrant: Address:

Awards Editor Progressive Architecture 600 Summer Street, Stamford, Conn. 06904

Entrant: Address:

(Return label)

2 Submissions must be accompanied by the entry form, to be found on the *left side of this* page. Each entry must have a separate form; reproductions of the form will be accepted. Please fill in (typewriter only, please) *all* appropriate spaces on the form, and sign statement of publication (part 2). Note that four parts are required for each entry.

3 No identification of the entrant may appear on any part of the submission, except concealed in an envelope attached inside back cover of binder; entries will be kept anonymous until judging is completed.

4 In addition to the form, please include the following: a one-page synopsis of the submission, attached to first page inside binder, summarizing program, your solution, description of and reasons for your selection of materials and construction methods, site considerations, and objectives of design (for research and planning, the intent and effect of the work). Set forth reasons why this submission should be considered for recognition. (Entrant should realize that this synopsis, plus visual material, may be sole basis for retaining submission for further consideration after first round of judging.) Any additional information necessary, or amplification of the one-page synopsis, is also encouraged, but should remain separate from the synopsis.

5 Graphic submissions should also include pertinent drawings such as site plans, representative floor plans, sections, details, perspectives and/or model photos.

6 For purposes of jury procedure only, projects are to be classified by the entrant in the appropriate space on the entry form. Awards and citations will not be given by categories, but submissions must be divided into comparable groups for judging. For this reason, you are asked to list your submission as one of the following: Education (Higher), Education (Secondary), Education (Primary or Early Childhood), Housing (Single Family), Housing (Multiple Unit), Commercial (Large Scale), Commercial (Small Scale), Industrial, Religious, Recreation, Health Care, Planning and/or Urban Design, Applied Research. If no category is listed for your submission, please write in MISC., and it will be placed with comparable entries. Mixed-use entries (part commercial and part housing, for instance) should be classified according to the larger function.

7 Submit fee of \$10 for each entry, to cover processing and handling, in an envelope marked "fee" attached inside front cover of binder. Make check or money order payable to *Progressive Architecture.*

8 Any entry not conforming to the above requirements may be returned to the entrant without being judged.

P/A will take every reasonable precaution to return submissions intact; in case of loss, P/A will assume a liability no greater than \$100 for each submission. **Deadline for mailing** is August 31, 1974.

Address entries to Awards Editor,

Progressive Architecture

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Progressive Architecture: Editorial



July 1974

and a continuation

P/A is inaugurating Technics, a new editorial section that will bridge that critical gap between schematic design and actual construction. You may have noticed in the May and June issues that our contents page has been reorganized under two major headings, **Design and Planning** and **Technics,** representing two distinct editorial "wells." In subsequent issues, Technics will become a consistent—and crucial—part of P/A.

The subjects covered in Technics will be those of particular concern to architects, rather than engineers or consultants. Conversations with readers convince us that there are unfulfilled needs for technical information—not just for news of the latest innovations (though we won't hesitate to share them with you), but also for concise information on recurring problems: detailing of curtain walls, planning for elevators, or selection of interior finishes. Monthly problem-oriented features will outline available solutions, discuss new options, and recommend sources of further guidance. Also in Technics will be such familiar P/A features as Specifications Clinic, Selected Details, and Building Cost Analysis.

Roger Yee, who joined our staff as an associate editor in January, is already working eagerly at his new role as P/A's technical editor. Throughout his years at Yale and his practical experience at the drafting board, Roger's interest has centered more and more on the technical tools of architecture. He is as conversant with organic chemistry as he is with shop drawings; and whatever he doesn't know now, he will be sure to find out by Monday morning.

Why call it Technics? It occurred to us as a concise word for "that which is technical." *The American Heritage Dictionary* supports our choice with two definitions for Technics (*n. plural*): 1 The theory, principles, or study of an art or process. 2 Technical details, rules, methods, or the like.

Very likely, you have your own ideas about what ought to be covered in P/A's new Technics section.

Your suggestions are invited.

The P/A Awards Program now begins its 22nd annual cycle, with the announcement (page 41) of jury members and submission requirements for this year's competition. Since the first P/A Awards jury assembled back in 1953, the program has evolved to match the expanding scope of architectural practice. This year, as last, entries will be accepted in three major categories: architectural design; urban design and planning; applied design research.

For many years, the P/A Awards Program has been one of the two annual competitions open to all U.S. architects (and, in the case of P/A, Canadian architects as well). The AIA's annual Honor Awards program, by recognizing completed work, tends inevitably to reward accomplishment within established norms; certainly none of this year's winners represented new directions. The P/A program, on the other hand, recognizes work not yet completed, with the express purpose of supporting exceptional solutions in the period when they might still be subject to compromise. The tendency of P/A juries to seek out innovative solutions was established back in 1954 when the second jury, chaired by Walter Gropius, decided to look for "points of departure" rather than "points of arrival."

Each jury since then has brought a subtly different set of criteria to the selection process. In recent years, there has been a great deal of jury discussion about the relevance of the programs behind the submissions, but awards and citations have generally been granted, however, for outstanding *solutions*, not just for admirable objectives.

Last year's jury was particularly concerned about the failure of so many submissions to explain either the program or the rationale behind its solution. This year we are requiring, for all categories of submissions, a brief statement relating the problem to the solution—and stating why the entry *deserves* recognition. This year's jury should have a more dependable framework in which to apply its very considerable expertise. We invite your submissions.

John Maris Difa

Introduction

The aura of the past

Kenneth Frampton

Nothing could make one more aware of the precarious "future of the past," than the recent demolition of one of Louis Kahn's earliest works, his AFL Medical Building, Philadelphia 1956, torn down in October last year to make way for a highway. Since the highway itself will be the last of a system planned in the 1940s, this was, in more ways than one, the last gasp of the New Deal. This recent piece of wanton destruction should go a long way towards dispelling any naive illusions we may still entertain about reconciling architecture with the automobile. For it is not the outstanding quality of the Kahn work that dramatizes the point, but the fact that it was barely 17 years old.

From the benighted days of Stanford White's Madison Square Church (built 1906; demolished 1916), the American city has never held monumental institutions in high regard, and age, be it venerable or not, was hardly ever a criterion by which to stay its processes. For let us make no mistake about it, the Western city is, and always has been, at least since the end of the 18th Century, the city of process. What was the Commissioner's Plan for New York but an abacus designed to facilitate perennial change and growth? It was certainly this for Olmsted, who wrote of its homogenous abstraction; "Some two thousand blocks . . . each theoretically two hundred feet wide, no more, no less; and ever since if a building site is wanted, whether with a view to a church or a blast furnace, an opera or a toy shop, there is, of intention, no better place in one of these blocks than in another." And ever since Olmsted, as with the sites so with the buildings, should it be expedient to demolish them. For if their architectural and institutional worth cannot save them, their location, given the grid, can hardly matter less.

Yet today even in the medieval foundations of Europe, where urban texture is something patently understood and where the monument is valued as the quintessence of urban culture, the same pressures are present; the same 20th-Cen-

Author: Kenneth Frampton, an architect practicing in New York, was educated at the Architectural Association in London and came to the U.S. in 1966 to teach at Princeton. Currently he is associate professor at Columbia University and a fellow of the Institute for Architecture and Urban Studies. He has been technical editor of *Architectural Design* (London).

tury disposition toward abstraction, toward the creation of buildings like graph paper—the higher, the better; the coming of Alphaville, that crossword puzzle world of which we were warned.

But if our cities are less and less able to accommodate the urban culture either because, like New York, they were never adequately structured to do so or because, like the old cities of Europe, they are now being eroded piecemeal by speculation, then it becomes all the more imperative to preserve those structures that appear to embody within themselves a condensate of the culture at its height. That is to say to hold on to those buildings which within themselves, constitute a world-a world that has temporal as well as spatial dimensions. But this clearly is a delicate issue. Given the necessary alternative of recycling, how does one sustain not only the place but also something of the time? I refer of course to that elusive aura of historical continuity, for it is surely undesirable to preserve a grotesque skeleton where the new content bears little or no relation to the uses that sponsored the original form. Clearly the Long Beach, Queen Mary enterprise is nothing short of admass necrophilia, for what is more dead than a ship that never moves. There is surely more life left in a set of the Cunard tableware than in the ship itself. Yet the same is also true of many buildings that cannot be recycled, in any fundamental sense, without doing a violation to their essential aura. Clearly Grand Central Station without trains would suffer instant death. (Witness Mount Royal Station, Architecture Plus April 1974.) The Bauhaus without the Bauhaus is an equally fatal proposition. The McGraw Hill building without McGraw Hill; what would be the point? An art historical specimen? The PSFS building without its giant initials? The idea is unthinkable for as in the case of McGraw Hill, the name, the institution, and the building have all been a visual and social entity far too long. Not so the Chrysler Building which has long since sustained its authenticity without the Chrysler Corporation, nor the Chanin Building, where the name was never an essential part of the architecture.

All of this is really a question of respecting a building's provenance when it comes to considering its reuse. Thus, the Robie House, as a center for international studies, is exemplary of recycling at its worst. Since the key houses of major European architects of the past are still lived in today, it is hard to understand why the elite of American wealth cannot

RADIO CITI MUSIC IALL PRESENTS

Original playbill case is evidence of Radio City's 42 years without change of function and of Rockefeller Center's maintenance program (p. 60).

be brought to live in buildings of comparable caliber. Would a tax concession in the name of national heritage be sufficient inducement?

These are possibly rather precious points but are they not ultimately central to the issue at hand? Is not historical continuity essential in the end to a satisfactory experience of the past in terms of the present? where else can one momentarily experience the aura of the late 19th Century, if not on the Staten Island ferry? Where else can one still feel the thirties, if not in Rockefeller Center? For in the latter case it is all there, from the skating rink to the observation terrace, from the uniforms to the massed flags, from Prometheus to the Rainbow Room, from Moses to the Rockettes. It is still there and still "afloat," long after the Queen Mary. And so apparently, resurrected from the same era, is the Oakland Paramount Theater despite the outraged ghosts of the Paramount star system, long since eclipsed.

Possibly the most subtle and sensitive example of maintaining historical continuity is the still unfinished renovation of the Cooper Union Foundation Building by architect John Hejduk and engineer Peter Bruder. Yet from the outset it must be admitted that Cooper Union, like the Glasgow School of Art or, for that matter, Rockefeller Center, has a special advantage; namely that it still is largely able to sustain the original form of its institution, so that much of the pervading historical continuity can be taken as given. Nevertheless when one compares the renewed Cooper Union to the sixties renovation of Sullivan's Auditorium Building in Chicago, a building which despite all the evident differences, is still functioning as an auditorium, then one cannot fail to realize that even where the program is amenable, historical continuity is by no means assured. And the issue finally is not only the propriety of the new program but also the architectural sensitivity with which it is interpreted. So that the present twilight existence of the Auditorium Building has to be ascribed to the brutality with

which Roosevelt University inserted itself into the Sullivan matrix. For clearly nothing of the original public-private hierarchy remains. Except for the auditorium itself the Sullivan shell stands as much gutted by the university as if it had been ravaged by fire. Wise after the event, one does not look in retrospect for inappropriate sentimentality. On the contrary one points to Sullivan's public volumes, the foyer, the lounge, and the long bar as items which could have been maintained and dedicated, within the context of the university, to public use.

It is to Hejduk's great credit that, despite his respect for major public elements, he has not allowed himself to be overcome by passing sentimentality. Throughout he has designed with clarity, sensitivity, wit, and generosity. The result is a level of spatial and programmatic invention that echoes the courage and ingenuity of Cooper and his architect Petersen working together, at Astor Place, in the forefront of the iron century. What is left of the original building is in essence nothing but its shell, the Great Hall and Cooper's prophetic cylinder, and it is the measure of Hejduk's feeling for historical continuity that this prophesy is at long last to be vindicated through the installation of a cylindrical elevator. For the rest, the new space is largely a building within a building. It cuts and runs against the syncopations of its archaeological shell, in an ingenious manner that Cooper would surely have appreciated. For the new work not only sets itself against the past, but also incorporates the past within itself; a conceptual past that extends beyond Cooper into the world. The market halls of Central Europe; the gallerias of Paris and Milan; the hypostyle volumes of Le Corbusier's villas; the organic striations of Aalto's rationalism-they are all there; evoked by the architect without a trace of pedantry. The issue of high art versus low fades away before such maturity. This is the stuff of culture. Today it is rare and yet, this surely is the only way to sustain the essential substance of preservation-that elusive aura of the continuous past in its broadest sense.

In Oakland, California, the citizens restored a spectacular old movie palace for their new community cultural center, and they spent only \$2 million rather than an estimated \$13 million for a new building.

On September 22, 1973, the Paramount Theater began a new life as the Paramount Theater of the Arts, Oakland's new community cultural center. Two years before, it had closed its doors after 39 years of service to the movie-going public. The story of those two years is one that cities all over the country may look to for inspiration and justification in rehabilitating architectural landmarks for new use.

In 1970 a committee of Oakland's civic leaders financially backed an engineering study to determine the feasibility of building a new center for the performing arts. The report projected an estimated cost of \$13 million and a four-year term of development. But because the ability to construct and operate such a facility was uncertain, another study was made in 1971 on the possibility of purchasing and renovating the Paramount. As a result of these studies the building was purchased from National General Theaters, Inc. for \$1 million one-half donated by the former owners and one-half by two anonymous donors. The cost of renovation was \$1 million. Currently there is a \$2 million endowment fund drive to provide an operating budget. When these figures are compared with the cost of a new facility as projected in 1970, it is easy to see why preservation for use is becoming a practical concept.

The Paramount first opened its doors on December 16, 1931. It was the largest auditorium on the west coast with a seating capacity of 3476. The opening-night program, "False Madonna" starring Kay Francis plus Fanchon and Marco's "Slavique Idea," was accompanied by the Paramount's full orchestra under the direction of Lou Kosloff. A splendid program, but the times were inauspicious.

Few theaters were built during the Depression. The great Hollywood Pantages is gone. Beside the Paramount, the only remaining one of major significance is Radio City Music Hall in New York. But it is not only as a lonely survivor of benighted times that the Paramount deserves immortality. It is also one of the most lavish creations of the Art Deco style which reached its peak during the late twenties when the Paramount was designed.



The 110-ft-high mosaic on Miller & Pflueger's 1931 Paramount Theater shows puppeteers manipulating marionettes from the magic world of the movie screen. Rare for a movie theater, the architects first built an acoustical model for the 3476-seat auditorium (right) where now sumptuous gilded walls in bas-relief depict south-sea-island paradise and break sound waves.





Architecturally, the building owes its distinction to the genius of Timothy Pfleuger, chief designer for the San Francisco firm of Miller & Pfleuger. Pfleuger is best known nationally for his office tower design in San Francisco's Pacific Telephone Building of 1926 and Medical Dental Building of 1930. The Telephone Building was directly inspired by Saarinen's second prize design for the Chicago Tribune Tower Competition; the Medical-Dental Building, in Art-Deco style, is still one of San Francisco's most admired office towers.

Equally important to the firm's livelihood was the theater design practice which began in 1922. In fact, it was so influential that Paramount Publix chain broke with its usual architects to hire Miller & Pfleuger for the Oakland theater. This decision resulted in a building that achieves a rare unity of architecture and the decorative arts.

The Paramount's facade is, in effect, a 110-ft-high billboard that shows the name of the theater and a tile mosaic of two monumental figures, a male and female puppeteer, who manipulate a series of marionette groups from the magic world of the movie screen. This mural began as a 3-ft-high painting by Gerald Fitzgerald, an artist in Pfleuger's office. It was blown up to full scale by the outdoor advertising firm of Foster & Kleiser and used as a mock-up for the mosaic.

The rest of the building's exterior is an unadorned expression of its internal functions. Since it stands in the middle of the block the architects assumed it would be surrounded by other buildings. This combination of spectacular advertising with stark functionalism gives the building an unintended



Michael Dixon, the architects' interior designer, furnished many ideas for the Paramount's interior, which were worked out in detail by others, such as Robert Howard and Ralph Stackpole, whose central panel over the proscenium arch (above) depicts a winged figure flanked by rearing stallions. Michael Goodman recalls that his drop-curtain was roughed out in colored pencil sketch, in minutes at the end of a long, hard day.

relevance to the contemporary pop-vernacular school of design of the Venturis. The only change to the exterior was the removal of the rectangular marquee; the triangular replacement has been faced to approximate the original.

The lobby lives up to the façade's promise of spectacular fare within. In addition, it is well planned for circulation. Access to balcony and orchestra are clearly indicated to arriving patrons by the branching staircase over the main floor entrance to the auditorium. During intermission or upon leaving the theater, the visitor is greeted by an ethereal vision as good as any he might have seen on the screen. This is a 40-ft-high sculpture made of leaves of frosted glass indirectly lit, which Pfleuger called a "Fountain of Light."

The walls of the lobby have a black marble base from which rise engaged plaster columns. Between the columns, set in slender metal frames, are 14 tall, frosted glass windows which glow with an amber light from lamps concealed within the columns. The longitudinal axis of the space is reinforced by a central filigreed metal screen which runs from over the main entrance doors along the central section of the ceiling and down the far wall of the lobby where it culminates in an archway of metal fins set edgewise so that they simulate a curtain half drawn up by cords. Allusions to the south-sea-island paradise, so often produced by Hollywood, occur in the floral pattern of the carpet, the lotus motif of the stair railings, and the stylized gilded plaster figures of vaguely Gauguinesque ladies silhouetted against the windows. As Steven Levin, historical consultant for the restoration observed, the illusion of being in a highly stylized rain forest is inescapable.

The layout of the theater auditorium is simple. The back wall is blank. All attention is focused on the stage. The side walls slant inward towards it and the ceiling slopes down to meet it. The first two wall panels are openwork grilles in front of the Wurlitzer organ chambers. (The original organ is now in a pizzeria, but an identical one is being installed.) The rest of the walls are covered with gilded sculpture in bas-relief. As in the lobby we see stylized figures and animals moving through stylized jungles. The central panel of the proscenium arch was carved from designs by San Francisco artists Robert Howard and Ralph Stackpole. It depicts a winged figure flanked by rearing stallions. The temptation is to assign symbolic meanings to such decorative motifs, but there was no actual program for the subject matter. In addition to providing a sumptuous decor, the sculpted wall surfaces break up the sound waves from the stage.

A metal screen similar to that of the lobby occupies the center of the ceiling. Both are made of galvanized metal strips set edgewise in intricate patterns and riveted together. Viewed close-up from the catwalk in the chamber above the ceiling, it is easy to comprehend their fabrication. Viewed from below, this metallic lace becomes an aerial fantasy, particularly when played on by the system of amber, red, and blue lights installed in the ceiling chamber. These two screens demonstrate Pfleuger's ability to use decorative devices to solve mechanical problems. Besides housing the lighting, they are the entry points for the filtered air of the ventilating system. Furthermore, they contribute, along with the wall reliefs, to the auditorium's excellent acoustics.

Additional public spaces are three small foyers and two

suites of lounges. Nowhere does the Art Deco style better exhibit its endless powers of invention. The visitor's astonishment at the consistently high quality of lighting fixtures, furniture, and wall decoration is an indication of our present low level of expectations for the interior design of places of public entertainment.

The Paramount was an ideal candidate for a restoration program. Basically intact, including furnishings, decor, and even mechanical equipment, it chiefly needed cleaning and refurbishing. The accumulation of 40 years of cigarette smoke alone was enough to dim its glory to say nothing of the general wear and tear on carpets, seats, etc. Still, the results might not be as impressive or as authentic if it had not been for the unwavering standards of theater manager Jack Bethards, and historical consultant Steven Levin, also president of the Theater Historical Society. Their uncompromising attitude, toward the exact reproduction of designs, colors, fabrics, and missing parts has resulted in a building that looks not so much restored as lovingly maintained. Anyone who has been involved in the problems of restoration knows how difficult this is. The search for fragments of carpets, curtains, and seating fabrics which would provide unfaded colors and patterns, plus the search for people to duplicate them is only one example of the complicated nature of the task. Fortunately Tony Heinsbergen, famous theater interior designer (now retired), was able to act as consultant for the restoration of decorative detail. He provided expert advise and supervision by members of his firm, Tom and Frank Bouman.

Replacement of the Paramount's seats may serve as an example of one kind of restoration problem. The average American has broadened since 1931. Enlarging the seats reduced the capacity of the hall from 3476 to 3000. At present, the mohair seating fabric originally used is made in only one factory, located in Georgia. The Paramount's order absorbed most of its production for over a year. In addition, the fabric traveled back and forth across the country three times before it appeared in its final stenciled state on the installed seats.

Other solutions were found close to home. The main curtain, consisting of panels of gold and silver pane appliqued on red velour, was reproduced in five months by a local maker of theatrical scenery, Marvin C. Burkman, and his wife working in their converted garage.

The firm of Milton Pfleuger & Associates, formerly Timothy

The prototype for Gerald Fitzgerald's "cookie-cutter" ceiling, as it was called in the office (facing page, left), was first used in the main room of Pflueger's 1927 Pacific Stock Exchange in San Francisco. Seen from above (bottom photo), the suspended ceiling is shown to be composed of galvanized metal strips set edgewise and riveted into intricate patterns. In addition to the drop curtain in the auditorium, Michael Goodman also designed most of the lighting fixtures. Reminiscing today, he recalls that the ideas were gleaned from many sources—European and American magazines, the now-famous 1925 Paris Art Deco exposition, and generally what was in the air. "There was no style to apply," he remembers, "everything was absorbed from other influences and given out your own way." Ladies' lounge make-up mirror lamp (center) has heating register above.









Pfleuger, provided original plans and served as historical consultants. Skidmore, Owings & Merrill served as architectural consultants.

Today the Paramount is as lively as when it opened 43 years ago. With a stage large enough for any presentation except grand opera, a mechanically elevated orchestra pit, and 20 production and dressing rooms, it serves all the arts from symphony and dance to variety shows and movies. The large public areas may house art shows, trade exhibits, or receptions. It is also an acoustically excellent recording and broadcasting studio. Location in downtown Oakland, half a block from a Bay Area Rapid Transit station, five blocks from a freeway on-ramp and in the center of bus transit, makes it accessible from all parts of the Bay Area. Oakland has achieved, perhaps surpassed, its original program for a performing arts center at a savings of \$11 million plus. In so doing, it has used a treasure from the past and taken a step towards revitalizing its downtown center. Although it is the first major theater in the west to be converted into a performing arts center, there are five theaters in the eastern United States that have already been converted: the Powell Symphony Hall in St. Louis, the Ohio Theater in Columbus, Heinz Hall for the Performing Arts in Pittsburgh, Powers Auditorium in Youngstown, and Gusman Hall in Miami. This small but growing number of conversions represents an important general change in public attitude and response to the dual problem of declining city centers and expanding cultural horizons. [Sally-Woodbridge]





Gerald Fitzgerald's "Fountain of Light" (above), a 40-ft-high sculpture of indirectly lit frosted glass leaves, is in the same relative position as a Gothic cathedral's rose window; one sees it most dramatically on the way out. Michael Goodman, who designed most of the lighting fixtures, felt light was truly a new "building material." Certainly, in the lobby spaces (this page), lounges (ladies' smoking, or black lacquer room, facing page), and throughout the Paramount, one feels that light reflecting off surfaces or diffused through metal fins or leaves of glass, or defining the modeling of wall surfaces, is a major contribution to design. All Photos: Rob Super



The Bauhaus

A prophet without honor

Elizabeth G. Miller

The Bauhaus, once the symbol of the tenets of modern architecture, now lies in a state of semi-decay, despite its continued use by the East German government.

In December 1926, Walter Gropius presided over the formal dedication and opening of the Bauhaus in Dessau. Begun in April 1925, the building was immediately hailed as a brilliant application of Gropius' own aesthetics and very quickly became recognized as the defining symbol of the International Style of modern architecture.

Dessau, in 1925, was a small, energetic industrial town. Fritz Hesse was its progressive and daring mayor who, on learning of the forced closing of the Weimar Bauhaus, persuaded Gropius with his troupe of teachers and students to move his school to Dessau. Today, nearly 50 years later and after the division of Germany, Dessau is a small, quiet townstill industrial-caught accidentally within the geographical zone of East Germany. A quick tour of the town shows that World War II badly damaged the whole community as much of it is still in ruins: buildings riddled with bullet holes are common, half-standing churches and other public buildings line the main street, and vacant lots filled with bomb-rubble and overgrown with weeds dot the center of the city. Like most industrial towns in East Germany, the commercial and manufacturing sections of Dessau were destroyed during the war, and the government's policy, in an effort to quickly rehabilitate its economy, was to build commercial and industrial facilities on new sites, abandoning the old ones.

In Dessau, the Bauhaus was still in a state of unchecked decay as late as 1959. The famous glass curtain wall that had enclosed the vast open workshops was gone, one of the war's first victims. According to one of the custodians (the only remaining accurate information source), the building received only one direct hit from a bomb during the war and this was where the bridge joined the extension to the wing that housed the students' apartments, just above the entrance to the auditorium. Pictures taken in 1965 prove that some building restoration work had been done. The photographs shown

Author: Elizabeth G. Miller holds a Masters degree from the Courthauld Institute of Art, London, England. She is currently Program Director of the Architectural League of New York. here, taken in August of 1972, reveal that the work was not accurate or according to Gropius' original design. New rooms were created in the old open spaces and, basically, the building was redesigned to accommodate the new occupants: seven different vocational schools, ranging from an industrial design school to one for medical technicians. Each of the building's present occupants has been allocated its own separate space and entrance, each is physically separated by bolted doors and bricked-off corridors. As a result, unrestricted passage throughout the building is not possible.

The photographs of the exterior clearly show the present condition of the building. The seven squares (with four holes each), which once held the name of the building, are recognizable. The glass curtain wall on the west facade, which once spanned three stories, is now interrupted by three long, low horizontal strips of brick and stucco. The curtain wall to the east, however, is still in place. Also, the fenestration of the south wall (that runs out to meet the wing housing the students' apartments and studios) has been radically altered, destroying the original wide expanse of glass. The classroom wing to the north has had little work done to it but the connecting bridge has had significant alterations. In that bridge, the horizontal stucco and brick strips have been widened in midstream, a curious attempt at preservation, restoration, or adaptation. The overall exterior is crumbling and in need of paint, with the stucco breaking away in many places to expose the brickwork beneath.

The interior is in much better condition. The main entrance and the stairwells remain unaltered except for an ominous coat of red paint covering the ironwork of the stairwell window. With the exception of the lighting fixtures, none of the original furniture or equipment designed for use in the Bauhaus remains. According to one of the custodians, it is thought to be in a warehouse in Halle, if it exists at all. Modern plastic desks are now used in the classrooms and most of the offices have old wooden desks and chairs. Since access is limited, however, little else about the interior can be reported.

The Bauhaus, approaching the 50th anniversary of its completion, is in a state of decay through neglect, misuse, and misguided reconstruction. What is needed for this masterpiece, recognized by historians as an international landmark, is a serious attempt to restore it for preservation. With international cooperation, that would not be difficult.



Markings on the wall where the Bauhaus sign once hung.



The altered façade of the bridge (above) and the bricked-up corridor (below) are only some of the changes that have destroyed the original concept of the Bauhaus since its close in 1933.



Chromatic relief



As spring comes to New York each year, the gardens of Rockefeller Center burst alive in a magical profusion of flowering plants. This year brought an added delight restoration of most of the Center's exterior art work, including the many limestone bas-reliefs done in the 1930s by a whimsical master of the Art Deco style, Lee Lawrie.

For some years now, the original part of New York's Rockefeller Center-the part dating from the thirties, not the new additions west of Avenue of the Americas-has been recognized as perhaps the most important 20th-Century masterpiece of large-scale urban form. The organization of the complex of buildings and their sensitive relationships to the streets, the still unparalleled, yet often emulated interrelationships of indoor and outdoor public spaces-the gardens, lobbies, theaters, roof-top restaurants and terraces, the underground concourses-remain, after 40 years, modern architecture's classic urban model. But it is not only the careful relationships of forms and spaces that give Rockefeller Center its unique and very special character, that make it a "place"-an event-to come to. Part of the Center's appeal is also closely related to the way in which these buildings and open spaces are so beautifully detailed with fine materials, the way they are enriched and humanized by works of art, and particularly the way in which these embellishments are so well maintained and so lovingly cared for.

From the day its first building opened, Rockefeller Center has consistently upheld the highest standards in its building maintenance program—a program that includes not just sweeping halls and washing windows, but one that also entails maintaining what is perhaps the largest, and surely one of the most interesting, collections of contemporary art to be found anywhere in America outside of museums and government buildings. It is a collection of public art—of bas-reliefs, sculptures, murals, and paintings—that thousands of people pass every day, but that perhaps only a few realize contains the works of such masters as Josef Albers, Stuart Davis, Naum Gabo, Gaston Lachaise, Giacomo Manzu, Isamu Noguchi, and Pablo Picasso. Although a detour may be necessary to find some of the art (Stuart Davis's "Men without Women" mural, for instance, is in the men's "lounge" of Radio City Music Hall), most of it is highly visible.

Among the most visible are the many delightful Art Deco style limestone bas-reliefs installed during the thirties by the lesser-known artist Lee Lawrie (his best known works are the huge, 45-ft-high, 13,000-lb cast bronze Atlas in the forecourt of the Center's International Building, and the murals in the Nebraska State Capitol at Lincoln). The most recent art refurbishing program took about a year, and follows a process which is carried out about every 10 years by the same Hudson-Shatz Painting Company of New York that has done it since the Center's beginning. All of Lawrie's "stone works," as they are called, (along with other artists' works in need of attention) have been cleaned, scraped, patched, repainted and regilded where necessary to bring them back to their original glory.

"In the case of the stone work," explains David Shatz, vice president of the paint company, "what we do is go back to the art work itself." Under the direction of Fritz Kleuber, who is in charge of Hudson-Shatz's restoration work and a painter in his own right, the restorers look for a clean area that has been protected from the elements and pollution, and using a sample taken from it as their guide, they can mix new colors that are faithful to the old ones. Then, after cleaning away the surface dirt and loose and falling paint, and recaulking and repairing where needed, the new, standard exterior, oil-base paint is applied.

"For us, this is an ongoing program," reports Joseph Davey, Rockefeller Center's director of building maintenance. "A problem with many places," he adds, "is that people tend to neglect this kind of effort—it's dead money, there's no return on it." "They tend to hold off until it's too late," says David Shatz, "and then they either let it go to pot or try to restore it, but by then it's very costly." James Reed of the Center's public relations office sums up the problem this way: "For us," he says, "there is a very simple answer. We just keep after it. We're very conscious of Rockefeller Center as a place for people to come to, and we want to do all we can to keep it that way." [David Morton]





On the RCA Building, over his 13-ton cast Corning Glass screen (facing page) Lawrie's huge tryptich depicts Wisdom (above right) interpreting the laws and cycles of cosmic forces—sound and light (left)—to man. On the British Building facing the main channel entrance, Winged Mercury (below) represents the merchant marine upon which much of England's wealth was founded, while on La Maison Française on the opposite side, a female figure scatters seeds of good citizenship. 23 karat gold leaf is used throughout.











Lawrie's Winged Horse representing inspiration, is at 1 Rockefeller Plaza.



Figures of commerce and industry are represented in Piccrilli's cartouche on the International Building North; the symbol of Mercury is between them. All photos: David Morton



On the International Building, Lawrie's St. Francis of Assisi (left) represents perfection in all human qualities. Attilio Piccirilli's panel on 1 Rockefeller Plaza (above) represents the joy of life.



Lawrie's massive 15'-6" x 21'-6" screen on the International Building (facing page; detail above) symbolizes internationalism through (from top left downward) the big dipper, a sea gull and whale's fluke, Aztec temple, smokestacks and eagle of industrial-age republics, Mercury as the messenger of trade, Art, Science and industry, the ship of trade, the four races, southern cross, palm trees, a mosque, a Norman tower and lion representing the old order of things. A 6-ft diameter clock as Sun shines over all.



New life for luxury liner

In recent years, the U.S. has transported from England a Christopher Wren church, the London Bridge, and the Queen Mary—the latter now converted to an immobile, floating tourist attraction in Long Beach, California.

The City of Long Beach, located 30 miles south of Los Angeles, got into the Queen Mary business when a team of zealous city officials traveled to London in 1967 and outbid 13 other contenders purchasing that grand white elephant of the Cunard Lines fleet for \$3.45 million. By the time its conversion was completed—two years behind schedule—some \$52 million had been expended. Hoping to tap some of the lucrative Southern California tourist market and using an already proposed \$8.5 million maritime museum project as a springboard, Long Beach officials were able to rationalize purchasing the ocean liner and converting it into an immobile, floating tourist attraction—a museum, hotel, complex of shops, restaurants, and convention facilities.

The overriding argument in favor of saving the Queen Mary seemed to be "why not?". Such decisions, however, as in almost all preservation efforts, are open to considerable con-

Authors: Leonard Koren, a founder of the Los Angeles Fine Arts Squad, is concerned with the documentation of subjects related to architecture. John Margolies, a frequent contributor to P/A, is a member of TELETHON, a Los Angeles-based company concerned with analysis and presentation of environmental phenomena. All photos by authors.







At a total cost of \$52 million, the Queen Mary was converted into a complex that includes two museums, a hotel, shops, restaurants, and convention facilities. Its stacks loom behind Mary's Gate Village (above left)–an English











Three-deck-high Queen's Lounge (above), the former 1st class lounge, now used for meetings and banquets; its gold- and silver-leaf fresco (below).



Observation Bar Restaurant (below) continues original function; railing is of cast phosphor bronze; mural depicts coronation of Mary and George V.



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jecture and debate.) The grand liner, with its predominantly Moderne decor with some Art Deco detailing (the architect in charge was an American, Benjamin V. Morris), was known as "the ship of beautiful woods" because of the use of 56 varieties of wood veneers in the interiors. Thirty artists, sculptors, painters, and interior decorators provided murals, marble plaques, carved wood panels and statues, brass bas-relief and wood marquetry panels, and other elements. Not everyone at the time was impressed by the QM's interior design. "The general effect," said the *Architect and Building News*, "is one of mild, but expensive vulgarity."

The 1018-ft-long, 81,000-ton, triple-funneled ship was for 31 years the premier passenger ship of the British seafaring tradition—the ultimate luxury hotel of the sea, accommodating the every need of 2038 passengers on its 12 decks during its 1001 trips from England to France to the United States and back. The Queen Mary is a product of the Great Depression, with its keel layed in 1930, construction delayed by lack of funds in 1931, launching in 1934, and maiden voyage in 1936. Overpowering statistics abound: 10 million rivets, 4000 miles of electric wiring, 27 boilers, four 40,000 hp turbines, more than 2 million passengers, and on and on.

The preservation of old ocean liners that have become anachronistic by the speed and convenience of jet travel has a clouded past. Most old ships end as scrap metal, although New York City had submitted a bid for the Queen Mary to convert it into an instant, floating high school, and Philadelphia had been eyeing it as a possible tourist attraction.

The Queen Elizabeth I, sister ship to the Queen Mary, met a sad fate after its purchase in the late 1960s. The QEI didn't succeed as an ''as is'' tourist attraction in Florida, was later sold to be converted into a floating university, and, as it was being refitted in Hong Kong, was destroyed by arson.

The relocation and preservation of quaint bits of Merry Olde England in the United States has a brief and happier tradition. In 1966 a Christopher Wren church of 1677 was dismantled and reconstructed at Westminster College in Fulton, Mo. (Winston Churchill made his famous "Iron Curtain" speech there in 1946), where it continues to serve a useful and sentimental function. The piece-by-piece relocation of the Old London Bridge in the Arizona desert in 1971 to span a manmade lake at Lake Havasu City at an alleged cost of \$7.8 million has created a strong contextual and symbolic identity for this new development.

The Queen's tourist attractions

Although the Queen Mary is owned by the city of Long Beach, its public attractions are operated by three separate management groups: a nonprofit corporation runs the tour and exhibitions; a 406-room hotel, leased and refurbished by PSA Hotels, is managed by Hyatt Hotels; and Specialty Restaurants Corporation is the master lessee for food, beverages, and merchant-tenant operations.

Aside from the mystique of the Queen Mary itself, the major tourist magnet is The Museum of the Sea's three major attractions—Cousteau's Living Sea, Queen Mary Museum, and the upper decks tour. Cousteau's Living Sea and the Queen Mary Museum occupy some 150,000 sq ft of public exhibition space and represent a \$4 million expenditure. The Living Sea exhibition, conceived by famed oceanographer and explorer Jacques Cousteau and designed by his architect-son, Jean-Michel Cousteau, is all at once impressive, flashy, and superficial, suffering from the problem of attempting to be both educational and entertaining.

The Cousteau design philosophy stressed that the 10 major exhibits were to be presented with a flexibility of getting across four or five key ideas within each area in but a few minutes, with options presented (through such ineffective means as text panels and booklets for sale in the gift shop) for deeper probing. "The museum will be divided into anecdotic exhibits," an early Cousteau design statement reports, "because passing groups of people are in a tribal mood and want to be told uninhibited short stories."

The major unifying element of the Living Sea exhibit is a 50ft-high rotating theme tower, "Man in The Sea," with a number of models of submersibles, divers, and sea animals appended to it. The remaining experiential displays, located on three levels surrounding the theme tower and interconnected by a series of stairways, escalators, and elevators, delve into areas with subject titles such as Windows in The Sea, Crops For The Sea, Man In The Sea, Procreation and Propulsion.

The Living Sea exhibit is especially impressive in its use and maintenance of sophisticated audiovisual technology (including some 51 film projectors and 41 slide projectors) and is notable for its technical virtuosity in the use of varied exhibition techniques (programmed slides and sound, multiple projection, video, animated models, dioramas, and very few aquariums with live specimens).

The simplistic exhibitions come off at their best in a display such as Water Planet, where the demonstration of water in its three states (liquid, solid, and gas) becomes an effective sensual and tactile environment, and in the Tide Pool exhibit, where the spectator can touch and handle living sea creatures. At their worst, some exhibitions are obvious and trite, as in the demonstration of symbiosis in an undersized aquarium containing the too-often-seen partnership of the clown fish and the sea anemone. Furthermore, the visitor is ushered through the exhibit by nautically attired, well-scrubbed and well-intentioned tour guides whose recitation of facts and figures adds to the "Gee Whiz" downfallings of the operations (the tour guides do, however, often emphasize that the spectator can spend more time in any area and then hook up with the next tour, but the general urge is to press forward).

Morgan Embroden, associated director of the museum and a designer by profession, is planning steps to broaden the museum's program. Embroden notes that "our clientele is the same typical tourist that visits Disneyland and Knott's Berry Farm, and they want to be amused and entertained rather than educated. If our museum was not aboard the Queen Mary few of these people would visit us." And so Embroden envisions an expansion (there's another 100,000 sq ft for future exhibitions) in the direction of more participatory experiences—boat rides, a sailing simulator, and construction by 16th-Century methods of a full-sized ship as used by European explorers, a process expected to take 10 to 15 years.

Much less ballyhooed and more sophisticated is the Queen Mary Museum segment of the tour. In addition to a QM history exhibit containing such memorabilia as an original first-class dining table tableau, gymnasium equipment, and a loop-film of the launching, one gets to descend into the bowels of the ship to view polished brass fittings, immaculately painted turbines belching small amounts of nonfunctional steam (the steam was installed for and retained after the filming of some scenes from the movie *Poseidon Adventure*) and, located in a 60-ton box structure appended to the hull, one of the original 18-ft, 35-ton propellers in 150,000 gallons of fresh water.

The tour continues, in its third phase, on the upper decks and includes the splendid, three-deck-high Queen's Lounge, preserved pretty much intact and used for banquets and meetings. Re-creations of the three classes of shipboard accommodations—officers quarters, the bow area, and the wheelhouse—are also located on the upper decks along with the shops, various restaurants, and the hotel.

Hotel and commercial areas

The real moneymaking possibilities of the Queen Mary lie in the potential revenue from the hotel, restaurants, various meeting and banquet rooms, and shops which can accommodate the needs of 1000 conventioneers or 3000 diners.

The PSA Hotel Queen Mary, unlike many of the ship's other areas, sensitively retains much of the grand character of the original floating luxury hotel. The \$3.2 million hotel renovation of 406 staterooms on three decks (single room rates vary from \$22 to \$28 per night) opened in 1972, and the occupancy rate thus far has been 45 percent (a rate that is surely bound to increase as the public becomes more aware of the facilities). Staterooms include the now non-functional electric wall fans and stopped clocks, and the original bathroom fixtures complete with the nonfunctioning hot and cold salt water faucets (but the bidets have been removed). Added in the renovation were such contemporary hotel amenities as king-size beds, color television, air-conditioning, direct dial phones, and room service. Some staterooms have been enlarged and additional new bathrooms installed.

Specialty Restaurants with their designers, Canell & Chaffin, has spent about \$2.5 million developing several restaurants, fast food facilities, banquet and meeting rooms, and 36 shops. The quality of these services, though, is uneven.

Many of the banquet and meeting rooms retain their original granduer because of their formerly grand locations, such as the Queen's Salon on the promenade deck and the Grand Salon (originally the main dining room) on "R" deck, but the furnishings are contemporary, stripped-down mediocrity.

There is considerable variation in the restaurant facilities. The most luxurious restaurant, the Sir Winston Churchill, is located at the highest point to the aft of the ship and commands a panoramic view of the Long Beach Skyline. With its central, open grille, it almost re-creates the Queen Mary mood with woodlike paneling and some original furniture. The Observation Bar overlooking the bow splendidly continues the function for which it was originally intended, it uses some original furniture and contains opulent, original decorative details such as a finely detailed, cast phosphor bronze railing and a happy, large mural over the bar depicting the public celebration of the coronation of George V and Queen Mary.

Some of the other restaurants come off dismally. The Lord Nelson and the Lady Hamilton are particularly disappointing,

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having been incongruously plopped onto the starboard side of the promenade deck and furnished with undistinguished, unrelated furniture.

The specialty shops and services range in type and gaudiness from the Bank of America to a franchise Tussaud Wax Museum containing "the crown jewel replicas from London." Merchandise in various shops ranges from souvenir tourist items to hashish pipes to fine imported and antique goods. While this crass commercialization seems coarse and out of place, it lends a flavor and energy to the proceedings.

Specialty Restaurants is expanding its operations with the soon-to-open Mary's Gate Village, a separate structure for merchants at the foot of the Queen Mary. Mary's Gate Village, which costs more than \$2 million, is said to be a re-creation of "an English village of the 16th to 18th Centuries."

Agonizing conversion process

The funds for the Queen Mary came from the development in 1965 of the largest oils fields in California, visible from the ship and located on four man-made islands in Long Beach harbor (the oil drilling equipment is disguised by structures resembling high-rise buildings of no specific type, and the islands are given nominal respectability by being named after four astronauts killed during the space program). The city revenue from this oil bonanza, expected to total some \$250 million during the 25-year life of the field, has been limited for shoreline and harbor improvements only. In addition to the Queen Mary conversion, these so-called Tidelands Funds have been used to build or underwrite the Long Beach Arena, a pier, public swimming pool, and improvements to the beaches, marina, and Port of Long Beach.

After organizing one last, great 15,000-mile cruise to get the Queen Mary to Long Beach, the 3½- year nightmare of rebuilding and refitting began. No one really knew what it would cost or how long the conversion would take. In the process, contractual and labor problems were encountered, and a major private investor, Diners Club/Fugazy Travel, Inc., which was to run the hotel, restaurants, and shops, withdrew from the project. Newspapers ran scathing exposés; citizens' outcries grew; and later, disputes emerged about the alleged use of public funds for private purposes.

It is not difficult to understand the two-year delay in the refurbishing process when reviewing the details of the effort. First, the drydocking process—some 100 hull openings were closed, then sandblasting, removing 300 tons of paint, repainting the underside, and removing three of the mammouth propellers took place.

Next, at an intermediate pier site, began the trip-out phase in which thousands upon thousands of tons of machinery were removed and sold as scrap. To accommodate new functions, vast areas were opened in six lower decks and one deck was entirely removed (its weight-bearing function being assumed by 3-ft-wide flange beams spanning up to 80 ft from one side of the ship to the other). Symptomatic of the unforeseen problems encountered at this stage was the discovery that the three huge funnels, which had to be removed to gut the interior, consisted mainly of 105 layers of paint that crumbled to bits at dockside. Three new 25-ton steel funnels had to be built as replacements.



The Upper Decks Tour includes re-creation of the ship's three classes of accommodations, such as the second class stateroom (above). Staterooms in the hotel (below) retain much of the original furniture.



Meanwhile, a strategically located site across the bay from Long Beach (where residents could easily view their new symbol) was being prepared to provide parking for 4000 cars and a terminus for shuttle service of old English double-decker buses from downtown Long Beach. Electrical, mechanical, and plumbing facilities were extended to or constructed at dockside. A twin-towered boarding facility with 14-gangways was built along with an ancillary ticket plaza, restrooms, first aid stations, and the like.

Ultimate judgment about the Queen Mary project remains to be determined. Since it opened to the public in May 1971, 3.2 million paying visitors have come (tour cost now is \$3.75 for adults and \$1.75 for children). Long Beach officials hope that the Queen Mary will serve as a catalyst in attracting new investments and adding new tax funds to its treasury. These hopes are beginning to materialize; an office complex and a new hotel are now under construction at nearby sites and additional developments, including an amusement park, marina, and hotels are in the planning stages.





Laurel and Hardy, in the franchise Tussaud Wax Museum (above) display plastic model of QM sold for \$4.95 on board ship. Hotel lobby (left) too retains much of the ship's original furniture. Carpet is a new addition and is authentic to the period of the room.













Interior design

Saarinen Atelier

The Auditorium, Kingswood School, Cranbrook.


More than an architect, Eliel Saarinen, in collaboration with his wife and children, also designed the interiors, the furnishings, and many other objects used in his buildings.

When Eliel Saarinen left Finland in 1922 to come to the United States, he was already well-known in Europe as an architect. The Chicago Tribune Competition, in which his design placed second, brought him quickly to the forefront of the American architectural profession, amidst lively arguments that his design should have placed first. From his native Finland he inherited a strong background in the tradition of crafts, and it seemed a challenging undertaking for Saarinen to accept George Booth's offer of a design commission for Cranbrook Academy of Art, Bloomfield Hills, Mich. There the traditions of craft, architecture, and design would be carried on in a setting which allowed for a close and informal involvement between student/teacher and living/working.

Saarinen articulated his broad view of design as "the general principle of structural and organic order permeating all things-a chair, a table, or a common utensil-as much as an entire city." These ideas not only led him to attempt master plans for cities as well as to design silverware, but they also led him to construct a totally integral and collaborative approach to the design of buildings which included landscaping, interiors, and furnishings. It is difficult in this period of history to assess the various influences on different schools of thought. Saarinen, through frequent trips to the continent, had contact with the Vienna school. He knew of the work of both Morris and Mackintosh, and no doubt had seen copies of Studio, an English publication on design. Stylistically, his work was influenced by the Art Nouveau, but his design philosophy closely resembles the attitudes held by Sullivan and Wright. His continual "search for form" (also the title of one of his books) was closely associated with truth and logic in materials and construction. His prose, while rather Victorian, marked, perhaps, the end of a period where architectural form was discussed as art rather than as function.

His philosophy was consistently carried out in his work, both in the design of the Cranbrook Schools and in later commissions undertaken by his office. His wife Loja and his children Pipsan and Eero all collaborated on many of the projects, including the Cranbrook Schools. Brookside, the earliest of the buildings, strongly shows the medieval influences found in Saarinen's early work-probably an attempt to place a European reference in a new and strange country. Cranbrook Academy still shows some vestiges of the medieval in the interiors, particularly in the dining hall, while the buildings gather around brick-paved courtyards in the tradition of the English colleges or the European monastic buildings. Perhaps the most significant of his contributions at Cranbrook is Kingswood school, begun in 1929 and completed in 1931. More than subtly Wrightian in its imagery, it is the most complete remaining work. What direct influence Wright may have had is not known, but he was a frequent visitor to Cranbrook during that period. Kingswood has classrooms, dormitories, an auditorium, dining and gymnasium facilities. The interiors were executed by the Saarinens; Loja

Kingswood exterior (left, top), lobby interiors and stair detail (left). Auditorium wall and ceiling detail (right, above).

All photos: Balthazar Korab, except pages 74 and 75—photos 1, 5, 9, 10 Sharon Lee Ryder: Photos 3, 6, 7, 8 courtesy Cranbrook Academy.

designed the tapestries and rugs and oversaw their execution on the Cranbrook looms, Eero helped design the furniture, Pipsan designed the auditorium curtain and probably had a hand in the design of much more of the interior than is generally known. Much of the original interior remains intact—the only one of the schools to escape modernization in the name of educational progress.

From the beginning in 1925, the intent of the schools at Cranbrook was to perpetuate a strong craft tradition in a closely knit community (similar to the Bauhaus, which was begun in 1919 and was forcibly closed in 1933). While the "less-



is-more" dictum was born of the Bauhaus, Cranbrook developed its own aesthetic around Saarinen's philosophy and personality. Yet the Bauhaus, long extinct as a school, altered the direction of 20th-Century design philosophy. Cranbrook, still functioning as an academic institution, could not maintain a strong aesthetic direction after the death of Saarinen, its director of 25 years. During his lifetime, Saarinen was as much a philosopher as he was a designer. In describing the nature of form, however, he was careful to say that it should never be decorative. Still, there is a sense of ornament to some of his buildings, and to many of his industrial design pieces, which could not be considered anything but decorative. It would be difficult to justify the silver stencil patterns on the ceilings at Kingswood, the wrought iron gates and windows of Saarinen's own home at Cranbrook, the painting on the walls, or the inlaid veneers on the cabinet work at Brookside as anything else. In the most important sense, however, these details are more than just decorative. They are a necessary part of making the place or the object special and unique-an axiom that later generations have given monumental form.

History gives us the unfortunate ability to identify style and to synthesize the complex into the simple. Saarinen's work is definitely of the period that is now called Thirties Moderne. For many it will be dismissed as just that; for others it will be revered for just that. What is overlooked is that this period of economic depression was, perhaps, the last originally creative period of an architecture in America. [Sharon Lee Ryder]



"At present we live out modern life, and is it not logical that modern art should develop from this life? We have as yet no modern style, only tendencies toward such a style, and we have no indications as to its ultimate development, but we do have the principles of development which have held true in other epochs."

"The only things we are sure of—a thing we must always keep in mind is that we should begin with simple forms, looking for truth and logic in regard to construction and to material. Every style must possess its fundamental idea, its original principle around and within which the style may further develop. This idea, this principle, should be logical, simple, and true, and should be of a constructive, not a decorative nature. If it is not so, there is no prospect of a consequent development of the style, which will grope and shortly be corrupted. To begin in a simple way, to aim at truth, in our means of expression—this is the most important inheritance we have from the great epochs of creative culture. And is not simplicity itself characteristic of our modern point of view, when scientific methods of expression have superseded the romantic and mysterious?"

"The future will show how much creative power our age possesses for the development of its own style. We cannot know that now. But if future generations can say that our age founded its style on true, logical and organic principles, then our times have been proved strong and creative, and future periods have received a firm foundation on which they can build further and develop." —Eliel Saarinen, Pencil Points, 3:1929.

- 1 Front door, Kingswood.
- 2 Lamp, dining room, Kingswood
- 3 Rug, Loja Saarinen, 1928
- 4 Remodeled interior of Saarinen's house, Cranbrook.

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- 5 Detail, Kingswood.
- 6 Cigarette box, 1933
- 7 Coffee urn, 1935
- 8 Bowl, 1933
- 9 Detail, Kingswood
- 10 Detail, Saarinen house



The Bank

The Pittsburgh follies



Wood St. façades of Colonial Trust, Annex Building, and People's Bank.



Fourth Ave. façades of Freehold, B/G, and Colonial Trust buildings.



FORBES AVE



COLONIAL TRUST



ANNEX BUILDING









Colonial Trust, Wood St. entrance.



People's Bank, Fourth Ave. entrance.



People's Bank, capital detail.

People's Bank stair tower.







Colonial Trust, section AA (above), basement vault (below)



In Pittsburgh's Golden Triangle, five classical revival buildings of the 1920s will be renovated by the IKM Partnership by designer Rodolfo Machado as a complex of shops, theaters, restaurants, offices, and apartments.

In Pittsburgh, people seem to recognize the value of what they have. That once-blackened industrial center is now a model of how a city can turn itself around; today its air is clean and, for a city of its size, its downtown is spotless, more intact than most, and exudes a sense of well-being and order. It has been suggested that perhaps one reason Pittsburgh has been able to accomplish such an impressive turn-around, is simply because it had more to turn itself around for. In a city where legendary fortunes were amassed by such families as the Carnegies, Mellons, Phippes, and Heinzes (and where six of the world's largest businesses still maintain corporate headquarters), a tradition of building grandly scaled structures, lavishly detailed with fine materials, naturally emerged.

In recent years Pittsburgh has shown unusual civic pride and intelligence in transforming these old buildings for new uses: an old movie theater is the symphony orchestra's beautiful new Heinz Hall, the Old North Side Post Office is the new History and Landmarks Museum (P/A, Nov., 72, p. 100), and the old market is now the refurbished Market Square. Soon, under the sponsorship of the Pittsburgh Real Estate Services Corporation, which was specially formed for the occasion, five more old buildings will be converted to bring new life to the heart of downtown.

The group of 1920s classical revival buildings occupying almost half of an entire city block will soon be transformed into The Bank-a large complex of shops, theaters, restaurants, offices, and apartments. The Pittsburgh National Bank (the only tenant remaining in the otherwise vacant complex) will continue to occupy the ground floor of the old 16-story People's Bank Building, but above it there will be several floors of new office space, and above those the major portion of the building will be turned into new in-city apartments. The three-story People's Bank Annex is scheduled to become a specialty department store, while the upper levels of the three- and four-story Freehold and B/G Buildings will be converted into film theaters. The ground floors of those buildings, plus the entire four-story-high open interior of the Colonial Trust Building, with its Carrara marble walls and stained-glass skylit ceiling, will become the focal point of the entire complex-an immense, high-quality shopping galleria with entrances facing three major downtown streets. Throughout the complex, as much as possible of the old will be retained. In the galleria, where a new mezzanine level will be added, almost everything new that is not structural will be detailed in stainless steel, white pipes, and glass. The plan and circulation patterns of the mall are fairly fixed now; what is finally built will depend, of course, on who rents the individual spaces. In the center of the galleria, however, the old marblefaced main vault is planned as a jewelry boutique and in the basement, other bank vaults will become individual dining rooms of a new restaurant. On a small existing second floor above the main entrance the original hand-carved, woodpaneled board room will become a gourmet restaurant.

The design process of this project, according to designerin-charge Rodolfo Machado, is determined by the conjunction of three major "forces." The first, he says, is that of the existing buildings, "which, as architectonic objects, present strong references to the history of architecture and to geometrical ordering as a major structuring notion. These buildings," he notes, "provide the initial 'written material,' which has been 'erased' and 'written over' during successive renovations, but upon which each re-design will develop as a new transformation conditioned by that which already exists." The second force, he explains, "is, in the broadest sense, the "function" of the new construction, its use as a commercial mall of high-quality shops and entertainment, where popular expectations are supposed to be satisfied, where sales must be promoted." The third force, he says, is the agent of design. In this capacity, he explains that he has taken a critical attitude toward the system of architecture. This is expressed in a poetic intention with respect to making form, where design operations answer the demands placed on the design, but are performed upon the notions of axiality, façade, scale, interior/exterior, and architectural order. The main problem with this approach, he concludes, "is that it may be interpreted simply as manneristic, in which case whatever strong content there is becomes trivial, the power of the gesture, the metalinquistic message generated by the designer, becomes dissolved." On another, completely separate level though, the reuse of the five buildings that constitute The Bank could become one of the most important, precedent-setting examples to date, since they will represent the first time in this country that a group of buildings of their quality has been transformed for other, new uses. [David Morton]



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How to work with the health client

James Falick



The director of Caudill Rowlett Scott's Health Facilities Development explains their relationships with the health client and the user, and how their attitude can lead to more humanistic health facilities such as the new Desert Samaritan Hospital.

Hospitals traditionally have been, at best, well decorated, but they have not been "people buildings." They have been hostile to the staff as well as to the patients. In part, this is due to their coldness and sterility, but more is due to the ways the buildings get in the way of function.

Perhaps breakdowns occur because of the necessary compartmentalization of people; hospitals don't respond easily to office landscape layouts in acute-patient-care areas. The real problem, however, may be that architects have been so concerned with function—with matching designs to new medical technology—that concern about environments for people has taken second place.

For quite some time, architecture of health has been outside the mainstream of planning and design in this country. Health facilities have been viewed as so specialized and finite in their departmental complexities that many architectural firms have avoided them. Hospitals have been designed as mechanisms superbly adjusted to the time they were designed and to the specific individuals for whom they were planned. But despite the great attention given to minute details, the real depth of conceptual planning, the understanding of flexibility and change over time, has often been missing. The basic problem is that most architects, including many who specialize in the field, do not understand that the health client is different from other types of institutional clients, and demands specialization in *his* field.

Learning how to specialize

Through training and experience I have specialized in health facility architecture. When I started out, working for a

Author: James Falick, executive vice president of CRS, has headed their Health Facilities Development since 1965.

fine architectural firm that did hospital design, I realized that what I cared about in designing buildings didn't seem to matter to the health facility client. For him I could be only a draftsman because I didn't understand his staffing patterns, or the importance of making sure the "political" organization of a hospital was not destroyed, or the necessity of the administration using outside help to get things done, or the need to protect the administration, board, and medical staff in what can be hairy negotiations.

In starting the health facility group at CRS about 10 years ago, we followed the firm's philosophy: the only way to work successfully with the specialized client is on his terms. We have to know enough about his business—and his problems so that we can really work as a peer group *with* him.

Specialization in health facility design is not just an internal requirement. The client demands it, and feels perfectly justified in doing so. The hospital administrator, after all, is a specialist by training; physicians and nurses are specialists; board members are usually specialists (if not in health, then in something else). All of them are geared to the health industry, and unless all members of the architectural organization are similarly geared, they are excess baggage, because the client cannot see how they can help him.

To develop specialization in a field you must first learn its language. Because medicine changes day by day you cannot keep up with every idea that comes along, but if you know the basic language you can ask questions. A client doesn't mind questions; he does mind total ignorance.

The second thing you must learn is that hospitals have a unique "dotted-line" organizational structure. The solid-line structure is represented by the board, administration, and staff. Of these, the closest contact is the administrator. The others, however, don't necessarily fit into a clear organizational ladder. It is not like a school system, where there is a board and a superintendent and everyone works *for* that organization. In a hospital, the medical staff does not work *for* the organization; as private practitioners, they work *with* it supported by it in the delivery of health care. The board's basic commitment is to provide a framework for delivery of the highest quality services at the lowest possible cost. The physician is primarily interested in the best use of his time for his

The 274-bed, 300,000-sq-ft Desert Samaritan Hospital is designed to expand both horizontally and vertically to an eventual 1100 beds. Through the use of fast-tracking and CRS's "squatters sessions," 14 months were trimmed from design and construction, which resulted in a \$4 million saving that brought the hospital in at \$45/sq ft, including all equipment. The ramped emergency entrance is sharply separated from other vehicular access.





GROWTH

How to work with the health client

practice and his patients; while the hospital may be nonprofit, the physician is not. The administrator must respond to the board and support the medical staff's direction; his control is determined far more by influence than by a clearly defined corporate structure.

Administrator is the key

A building program puts a great stress on the web of hospital relationships. Typically, the hospital administrator is expected to lead the program while continuing to run his hospital on a day-to-day basis; in effect, to handle two full-time jobs with equal efficiency. The problems of running a hospital are continuous, and if the administrator has to run the building program single-handedly, he and the architect/engineer (and the project) will find themselves in serious trouble. Yet if either job is short-changed in the process, all are criticized for "not doing their job."

Administrators, on the whole, are smart enough to realize that this path of dual responsibility could hurt their careers. (Upward mobility is seldom furthered by a dead-end project.) They have learned to look for architects and consultants who can assume at least part of the burden of running the building program. The administrator needs not just a qualified architectural designer, but also financial advisors, hospital consultants, planners, engineers, equipment specialists; the list goes on and on. He wants a team, not one leader and a lot of underlings. At CRS, our health team is a combination of inhouse resources, the client group, and outside specialists.

Perhaps the hardest part for us to learn has been how far this specialization needs to go in our own firm. For a health project, our in-house team includes building specialist-architects with educational backgrounds concentrated in health facility operations, research and design; experienced specialists in project management, cost accounting, all the engineering disciplines, hospital equipment, systems design, landscaping, hospital interiors and graphics, and construction administration. The project team is thus made up of three groups: management, design, and technology.

Often, the project team also includes a local architect as an associate, someone the client has worked with and built up good relationships with over the years. The associate often participates in the interviews with the board, but from our own point of view, an associate's main contribution is his knowl-edge of the region, its codes and regulations, and its people.

We also work with hospital consultants on many projects. The American Hospital Association's "Statement on Selection of a Consultant for Hospitals and Related Health Care Institutions" notes that, "The experienced consultant's role is that of a catalyst, perhaps that of a sounding board, certainly that of an expert advisor." Consultants conduct local and regional surveys, analyze needs, and provide administrative and organizational evaluations and medical audits; they also undertake programming and assist in planning, construction supervision and equipment selection. While there is some overlap between architecture and consulting services, this is to the client's advantage in a true team relationship. When the architect and consultant work together as one team, on a rational basis, the project moves.

Needs vs. wants vs. money

Most health facility projects deal with existing hospitals that want to renovate, expand and, very rarely, build new. In a typical situation, a hospital has been working in buildings that have become progressively obsolete. They have an increasing patient load that requires more and more space as time goes along. Medical programs change as well, and there is a continuing need for different kinds of spaces. After preliminary feasibility analyses, performed either in-house or by consultants, the board, administration, and staff are finally able to start a capital development program. Unlike big business,





hospitals aren't primarily interested in the aesthetic impact of the new facility; their primary concern is for function and quality of service. If they can have function at a price they can

afford and also get good design, they're delighted. Whatever the client's original idea of the project's scope, we insist there be a financial feasibility study before the job starts, to determine what the hospital can realistically afford. Sometimes the hospital intends to develop new programs in new facilities that will generate new funds. Other times, the program calls for replacement of obsolete facilities where no new money will be generated. When you begin to plan, you must know the client's real dollar limits and be able to apply costs to each area of the hospital. If you can't do this, you end up promising more than the board can deliver, which tears an institution apart.

The hospital "honeymoon" is probably the hardest one to maintain because you deal with so many people. There are often over a hundred people within the average-sized institution who must be involved and/or consulted at key decision points; often another 25 or 30 outside. Openness is critical. You must have a clear statement of goals and dollars that match. This information must be conveyed to the community at large so that no one will be able to take potshots at the hospital for building what the community cannot support.

We don't work alone

Contact between architects and clients is usually limited to formal meetings, where one is confronted with barriers and time limitations, with little opportunity for informal cross communication. We solve this problem by actually moving the project team to the client's site for about a week at each decision-making point in the process. There's an opportunity to relate as individuals when you are around for 16 or 18 hours a day during what we call the "squatters" process. This live-in decision process has to be structured very carefully, however. Everyone must understand that no decision is approved except by the administration and board. With this understanding, we have a chance to work intensively with the client, reviewing ideas and evolving new solutions together.

Early in the job we let the client know that we enjoy what we do-and expect him to have fun as well. Planning becomes an opportunity, rather than a problem. It's rewarding for the people who work in overcrowded, obsolete buildings to know they will get new facilities. But when we can generate excitement beyond that, people become creative and inventive.

Desert Samaritan Hospital

Desert Samaritan Hospital in Mesa, Arizona, is the first new hospital to be built by Samaritan Health Services, a voluntary corporation of nine Arizona hospitals. It is not typical of the problems architects meet in health planning, but it illustrates the planning process involving client and community.

When the search for an architect began, James A. Hamilton Associates, Inc., were already on board as hospital consultants. After we were selected, we expanded the team by adding a Phoenix associate, Drover Welch & Lindlan. Although hired by the board, we couldn't just show up and start working without giving the rest of the hospital team a chance to meet us. In effect, we needed to give them a chance to hire us as well, and we did that by making formal presentations to the medical and hospital staffs. They had a right to know who we were, what we had done previously, what we hoped to do for them, and how we planned to work with them.

Desert Samaritan has 274 beds in this first phase and is designed to expand to 1100 beds within the next 15 to 20 years. There was no question about the size of the first phase. As defined by the Hamilton program, the hospital needed 274 beds and approximately 300,000 gross sq ft to accommodate the medical programs. What wasn't anticipated was the skyrocketing cost of both construction and borrowing. In re-





SECOND FLOOR

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How to work with the health client

sponse to this inflationary trap, the traditional linear building process was telescoped into a modified fast-track.

The intensive design "squatters" session cut six months from the usual design and approval schedule, according to Hamilton Associates. Fast-track construction cut another eight months. (In the eight months of construction, the government accounting office statistics showed that fast-track construction alone saved \$1.9 million. On the same basis, the six-month saving in design time would be worth about \$1.4 million, for a total savings of over \$4 million in construction costs on a 300,000 sq ft new, high-tech hospital which came in at \$45 per sq ft including equipment.) While interested in saving time and money without sacrificing guality, the board had no intention of going into the ground without a maximum fixed price. Knowing this, we expanded the team early in the game to include Kitchell Contractors, Inc., as construction managers, so we could have a maximum price by the end of design development. Kitchell also was able to review design decisions as we went along and, in many instances, could make suggestions that resulted in less expensive ways to solve problems.

The Desert Samaritan project started by talking to people; since it was replacing the 143-bed Southside District Hospital, there was an existing hospital team to involve in the process. We talked to the board, administration, doctors, nurses, and support staff to find out what they wanted their hospital to be; we interviewed patients, both those in the existing hospital and those who had been discharged. Concepts of what the new facility should not do were developed for review.

Scott Parker, administrator of Southside Hospital, recognized that genuine community participation in this venture would build long-term community support, and he worked toward opening up the process from the beginning. A team representing client/consultant/architect met with each community group to explain what was happening and to solicit new ideas. These frank, exploratory meetings were important, since institutions frequently make gestures toward community



TYPICAL NURSING FLOOR

On typical nursing floor (above) four rooms share a deeply recessed balcony (gray tint). In main inpatient lobby (facing page, left) turns in the mechanical ducts are expressed to add character to the massive, three-story high walls. Stucco on interior public spaces and on exterior is used to recall traditional southwestern architecture. Patient rooms (facing page, bottom left) look either to mountains or to one of two interior courts (far right) located between nursing towers and the building's long spine.











FOURTH FLOOR







How to work with the health client

involvement without following through. The hospital invited the people from Mesa and Tempe (the two cities the hospital was to support) to participate in public "squatters" sessions to express their ideas and desires for the new hospital. These sessions, well advertised on TV, radio, and in the newspapers, brought some 400 people armed with ideas, plans, and enthusiasm, to the local YMCA.

Design response

Hospitals, they said, were too noisy; they wanted the new one to be quiet. They needed a full service hospital so they would not have to go all over the district for each different medical need. They wanted good provision for visitors. They wanted a hospital that was modern, efficient, and technologically advanced, but one which had human scale and expressed the local Southwestern informality.

We used textured stucco to recall the material of the region's early mission architecture; the horizontal form focusing on open courts is an expression of the climate and the relaxed way of life. The skylighted inpatient reception and admitting lobby is designed as a great vertical space to provide an immediate sense of invitation and orientation to all levels of the hospital. Balconies, indoor plants, and warmtoned furniture contribute to the feeling of warmth and welcome. The openness of the lobby space, most visitors agree, is unlike any notion they may have had of a hospital lobby.

Basic zoning places parking and reception on the ground level, medical services for diagnosis and treatment on the second level, and administration, education, and dining on the third level. Two four-story nursing towers are located at the western end of the complex and are connected to it by a spine, actually a concourse for the movement of people, goods, and information, and for mechanical systems as well. Additional nursing towers can be added to the west, south, and north to expand the bed capacity to 1100. Elevating the structure above parking provides a covered entry, answers the need for shaded parking, and accommodates an openended growth system. Expansion will cover more parking areas to provide additional space for diagnostic and treatment areas.

A great deal of consideration was given to easing traffic flow. The main access drive separates emergency and ambulance traffic from that of patients, visitors, and staff by means of a ramp to the emergency level. There is a drop-off zone along the concourse for visitors and patients. Both the inpatient and outpatient entries are on ground level, eliminating the need for stairs. These entrances are located at opposite ends of the concourse, with shared facilities such as surgery, radiology, pathology, etc., in between. Space has been left between the various diagnostic and treatment departments for future horizontal growth, and another floor can be added above medical services.

At the end of the design process, Scott Parker wrote that the close and constant working relationship of team members "has resulted in a truly functional hospital design, using latest construction technology and recognizing physical and aesthetic needs of patients and staff. Intense involvement of the hospital staff, both medical and non-medical, has made this our hospital, not the consultant's or the architect's."

A postscript

The Desert Samaritan construction story doesn't end when the building opens. Just as we have "squatters" before a facility opens, to make sure everyone understands what has been done and how it will work, we also have a post-opening "squatters" after everyone is using the building. The team not only must *deliver*, but also must *evaluate*, and as a team.

The lesson to be remembered: Budget enough money at the beginning to pick up mistakes. There is no perfect building, no building without mistakes. These may be minor, as they were at Desert Samaritan (add a shelf for late trays; extend the Emergency Room automatic door opener pads). But although they are minor, they are important and nagging to the staff. (Sometimes it's little things that kill relationships.)

Project success hinges on people and how they are involved. In health, that means how much the client/community feel identity/ownership and understanding of the facility before and after they occupy it. While the client's priorities may not represent what architects are trained to think of as great design, they are not incompatible with architecture. He does understand the effects of environment; patients and staffs have long suffered from poor environments. His first priority, however, will always be to hold the institution together as an organization.

When architecture answers the priorities of organization and operation of the health-care delivery system, not only can good architecture result, but new kinds of architecture. Desert Samaritan became architecture (with a capital A, we think) by balancing the qualities of form, function, and economy. But most important, it's their building. As one of the nurses said during the post-occupancy ''squatters,'' ''It's like buying a new pair of shoes and finding they fit perfectly.''

Data

Project: Desert Samaritan Hospital, Mesa, Ariz.

Architects: Caudill Rowlett Scott, Houston, Los Angeles, Chicago, New York; Drover Welch & Lindlan, Phoenix, associate architects. **Program:** 273-bed full-service hospital, designed to expand to 1100 beds. It replaces one older hospital in the Desert Samaritan Health Service corporate system, but is planned to bring technologically advanced medical care to the whole Mesa-Tempe area through its new areas of health service and major emphasis on outpatient care and preventive and health maintenance programs.

Site: 88 flat acres surrounded by agricultural fields except for adjacent community college.

Structural system: reinforced concrete structural frame with precast concrete joists which meet seismic criteria.

Mechanical system: central building has high-velocity terminal reheat system from air-handling units in penthouses that permit 100 percent flexibility. Vertical chases along length of building carry power, heating and cooling fluids to air-handling equipment. Separate air-handling unit with reheat is provided on each floor of nursing towers for complete individual room control. Central boiler plant provides power, steam, and chilled water to substation serving all mechanical facilities.

Major materials: exterior skin walls are stucco to reflect regional tradition; floors are carpeted unless hard area is required; ceiling designed on 4'-6" module for flexibility; interior is designed to reflect traditional Spanish and Indian culture.

Consultants: Warners' Designs for Business, Phoenix, Interior Designers; James A. Hamilton Associates, Inc., Minneapolis, Hospital Consultant. **Costs:** \$13,529,765; \$45 per sq ft, including equipment.



Structural bents projecting above main spine (above and below) will carry future additions.





PINE KNOB MUSIC THEATRE, Independence Township, Michigan Jurors' Comment: "Here is a well designed structure that uses exposed structural steel to create a gay and light environment appropriate to the function of the theatre. It is straightforward, honest, and very nice."



FIRST and SECOND CHURCH, Boston, Massachusetts Jurors' Comment: "This addition of contemporary space to the remains of an old church very successfully weds the old and the new without compromising either the contemporary flavor of the new or the Victorian and eclectic flavor of the old. An important symbol has been restored and a functional area for community use has been added. The jury was impressed with the handling of steel as an essential material for constructing the new addition and relating it to the remaining parts of the old church."



FOURTH DISTRICT HEADQUARTERS, METROPOLITAN POLICE DEPARTMENT, Washington, D.C.

Jurors' Comment: "The jury regards this dignified design for a government agency as having considerable importance. It represents a trend toward simplicity and direction that should be recognized and encouraged."

ARCHITECTURAL AWARDS OF **FXCFILFNCE-1973**

American Institute of Steel Construction

These buildings represent four of the twelve award-winning structures selected from 121 entries in the Fourteenth Annual Competition for steel-framed buildings sponsored by the AISC. As these examples demonstrate, steel-framed buildings can be designed to express almost any geometrical shape desired. Bethlehem furnished structural steel for the buildings illustrated.

NATIONAL Pietro Belluschi, FAIA, AIA 1972 JURY OF Gold Medalist, Former Dean, School AWARDS of Architecture & Planning Massachusetts Institute of Technology, Boston, Massachusetts

> William W. Caudill, FAIA Caudill Rowlett Scott Houston, Texas

Victor O. Gray, M. ASCE Vice President, Consulting **Engineering Council** Victor O. Gray & Company Seattle, Washington

Ambrose M. Richardson, FAIA Chairman, Department of Architecture University of Notre Dame Notre Dame, Indiana

Archibald C. Rogers, FAIA President AIA Chairman, RTKL Inc. Baltimore, Maryland

OXFORD VALLEY MALL, Bucks County, Pennsylvania Jurors' Comment: "Here is a fine example of the internal common space which is restoring a very important sense of community to the urban areas of our cities. Steel is a most important material for creating the crystal palace effect that envelops these malls."



Pine Knob Music Theatre Owner: Indusco Corporation, Clarkston, Michigan; Architect: Rossen/Neumann Associates, Southfield, Michigan; Structural Engineer: McClurg & Associates, Inc., Bloomfield, Michigan; General Contractor: Indusco Corporation, Clarkston, Michigan; Steel Fabricator and Erector: Structural Steel, Inc., Mt. Clemens, Michigan.

Fourth District Headquarters, Metropolitan Police Department Owner: Govern-ment of the District of Columbia, Department of General Services, Washing-ton, D.C.; Architect: McGaughan & Johnson, Washington, D.C.; Structural Engineer: He A. B. Engineering Company, Bethesda, Maryland; General Contractor: Lormack Corporation, Upper Marlboro, Maryland; Steel Fabricator: Dietrich Brothers, Inc., Baltimore, Maryland; Steel Erector: Janco Enterprises, Inc., Clinton, Maryland

First and Second Church Owner: First and Second Church, Boston, Massachusetts; Architect: Paul Rudolph, New York, N.Y.; Structural Engineer: Nichols, Norton and Zaldastani, Inc., Boston, Massachusetts; General Contractor: George B. H. Macomber Company, Boston, Massachusetts; Steel Fabricator and Erector: A. O. Wilson Structural Co., Inc., Cambridge, Massachusetts.

Oxford Valley Mall Owner: Kravco, Inc., King of Prussia, Pennsylvania; Architect: Cope Linder Walmsley, Philadelphia, Pennsylvania; Structural Engineer: Meridian Engineering Inc., Philadelphia, Pennsylvania; General Contractor: Mc Closkey & Co. Inc., Philadelphia, Pennsylvania; Steel Fabricators: Unistrut Cor-poration, Philadelphia, Pennsylvania; Delco Steel Fabricators, Inc., Cornwells Heights, Pennsylvania; Steel Erector: Thomas Lindstrom & Co., Cinnaminson, New Jersey.







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Technics: Specifications clinic

Materials evaluation—Part I

Harold J. Rosen, PE, FCSI

Deploring our lack of a standardized approach to evaluating new products, the author cites for comparison the more systematic methods used in Great Britain.

A standardized, organized approach to evaluating materials has not yet been formulated in this country by any of the professional groups including AIA, CSI, or comparable engineering societies. Neither is there any governmental agency or independent board that evaluates materials by standards similar to the Agrément Boards in some European countries.

Materials evaluation should really be concerned with two distinct areas: 1) the evaluation of new products; and 2) the application of performance criteria in selecting and evaluating materials and products for use in a new project. Part I of this two-part article is concerned with the former.

In some European countries, evaluation is being undertaken by Agrément Boards (independent of government and industry), to expertly assess new products and components.

When we speak of new products we should actually separate them into two distinct categories: 1) those that are manufactured to meet an existing standard, and 2) those that are unique in that no standard exists against which they can be measured, thereby making it necessary to investigate and assess the claims of the manufacturer. New products that fall into the first category are readily evaluated. Good product standards result from systematic technical research combined with committee work such as ASTM, Federal Specifications, and ANSI standards, and establish suitable physical and/or chemical properties which, for the most part, have a direct relation to performance. Through use experience these standards are upgraded as additional knowledge is obtained from field observation of the product's performance. New products, which their manufacturers claim meet product standards, can therefore be easily evaluated.

New products marketed without reference to product standards require a completely different approach to evaluation. It is this area that the Agrément Boards of Europe are serving, as an agency that evaluates new products for which no longterm use experience exists. The manufacturer's data sheets which contain physical, chemical, and mechanical property data do not necessarily provide the answers to how the product will perform in use. Generally, the designer has little technical know-how to guide him in his assessment and evaluation of materials that are the products of modern day chemistry, plastics, and metalurgy. By the same token, the manufacturer lacks the expertise concerning the conditions, configurations, and exposure to which the product will be subjected during the life span of the building.

In Great Britain the Agrément Board provides a facility for the expert evaluation and assessment of new products, examining the information provided by the manufacturer, by simulating experiments designed at testing the performance to be expected in use, and by the experts considered judgment of all evidence. The Agrément certifications which are issued for assessed products are published in MOAT, "Method of Assessment and Testing," and deal with safety, habitability, durability, practicability, and maintenance.

The safety classification includes strength, fire and impact resistance, combustibility, toxicity, and other health hazards.

Habitability includes behavior relevant to thermal and acoustic insulation, light and ventilation, prevention of dampness, or rain penetration.

Durability includes resistance to wear, weathering, or other disintegrative forces and performance of appearance.

Practicability includes transport, storage on site, handling during installation, and need for special techniques.

Maintenance includes some portions covered by durability and the nature of scheduled maintenance operations.

Obviously, for some products certain classifications will not be relevant and for others, more detailed investigation will be required. Differing categories of products will require differing test requirements. Whether the board classifications as used by the Agrément Boards are totally adequate or descriptive of each of the elements to be investigated is debatable. With time and experience these classifications may change.

The architect evaluating new products must go beyond some of the considerations treated above in the MOAT. He must give consideration to compatability if the product is to be in juxtaposition with another material or product in some designs. This will require an evaluation of chemical and/or physical interaction to ascertain whether the marriage is a satisfactory one. He must also investigate code requirements since varying codes may or may not permit the universal use of a product. He must assess the economics since he does have budget limitations.

In any event a standardized, organized approach is required in the evaluation and assessment of new products, and this approach is sorely lacking in this country.

Author: Harold J. Rosen is an independent construction specifications consultant in Merrick, New York.

Renovation: Foundation Building, Cooper Union

Metamorphosis



Foundation Building added floors 6 and 7 by 1900 in northwest view, above. Seventy-four years later, buttresses steady south and southeast walls as south end interior is gutted out.

Working with the sureness and diligence of surgeons, John Hejduk, architect, and Peter Bruder, engineer, have renovated a structurally complex national landmark.

Three colossal praying mantises stood poised to scale a 120ft garden wall at a busy intersection in New York City. Kafkaesque fantasy? Foundation Building, the 116-year-old national landmark and pride of Cooper Union, is undergoing radical surgery to implant a 20th-Century interior in its 19th-Century shell. More than an artistic tour de force, the collaboration of John Hejduk, architect and chairman of the division



Metamorphosis

of architecture at Cooper, and Peter W. Bruder, engineer and faculty member, is a masterful exercise in technology.

The center of attention is an eight-story bearing wall structure with iron and steel framing. Originally designed as a fivestory building by one Fred A. Petersen, Foundation Building is an amalgam of centuries-old wisdom in shear wall design and newer concepts in lightweight metal structure.

The exterior was finished in stone in the so-called "Italianate" manner. It was surmounted by a clock tower and enriched by arched windows, caesurae, cornices, and loggias on its façades. However, there were greater delights within its 16 in. bearing walls.

A vertical circulation core of elevator and stairs stood at the south end, fire stairs at the north end, and a stack of masonry wall "cells" along the diagonal east façade of the trapezoidal plan. Filling this part of the shell were 17'-6" square bays framed by cast iron columns, built-up rolled section girders, and 7½ in. steel floor beams 3'-6" on center. Beam-to-column connections were made by split-ring collars transferring compressive stress to column capitals by way of fluted "bead" shelves atop the capitals. Floor beams simply rested on girders without physical connections.

The framework was exposed. Columns were manufactured in a variety of styles: circular, fluted, and inscribed; octagonal; or perhaps composite, channels tied by diagonal lattices and enclosed with ornamental plaques. The girders, more perfunctory, came in three basic sections fabricated in England, the only country that possessed the capability. The floor beams were the same rolled steel sections supplied as railroad tracks to the Baltimore & Ohio in 17'-6'' lengths (hence the bay size).

Under the famed Great Hall basement auditorium, host to Abraham Lincoln, Susan B. Anthony, and Mark Twain, the building's weight descended from iron columns and pedestals to three-tiered pyramidal footings of solid granite. Supporting everything else was a sand capable of bearing 5000 psf.

Into this framework was placed a floor system centuries old. Catalan vaulting rested on the rail flanges, directing its side thrust to the angle formed by flanges and webs. The vaulting supported cement topping, sleepers, a finished wood floor, and a live load of 60 psf.

Special conditions abounded. The south end, where the bay rhythm was interrupted by vertical circulation, produced a structural mire. Bearing walls and arched beams framed the southeast open staircase. A fan of beams radiated from the circular elevator core to the southwest walls to create a curving monumental staircase. And between these bony shoulders stood a tight configuration of bays.

Peter Cooper planned to finance the building's operation by dedicating the first and second floors to commercial lease. Petersen obliged by running brick walls on east-west column lines north of the circulation core on those floors to create shops and offices. Bruder notes that these "rabbit hutches" placed a hefty load on the basement ceiling. The characteristic stone arches of the Great Hall were raised, bridging capital-to-capital to transfer distributed load to the column trees.

And what building's neck is not encircled by an albatross? Foundation had two, a pair of diagonal braces knifing their way from first floor to roof. They may have been installed to



Detail of load transfer assembly at floor 6 shows clamps, jacks, yoked beams, original and temporary columns. Ground floor plans old and new show extent of original masonry walls now removed.





ORIGINAL FLOOR 1





Open window allows tie rod, wale, and buttress to steady south end wall. Library arcade wall, above, displays new steel structure and old masonry scars on



Metamorphosis

relieve vibration stress generated when printing machinery was installed on the top floor at the turn of the century. Unfortunately, no official explanation of the braces' structural function survives.

The renovation program basically wraps new services around old lofts. Studio floors three through six are being refitted with toilets, storage, and offices as well as special facilities. The Great Hall is being modified to latest fire specifications. Floors one and two are opening up to accommodate a library on the former, administration and teaching on the latter. Floor seven, an L-shaped mass rising on the south and east flanks of a huge triple battery of skylights running eastwest on floor six, is essentially unchanged but for refurbishing. Floor eight is new space created by expanding the clock room (whose works will be visible) and planting a rooftop garden. To all floors go new structural, mechanical, electrical, plumbing, and HVAC (multizone chilled water steam absorption which relies completely on utility-supplied steam) systems. The new vertical circulation features a special circular elevator cab, in belated recognition of Petersen's prophecy that early elevators would be circular.

Simple enough. And the strategy? The south end would be completely gutted of its maze of bearing walls, illegal and inefficient staircases, and tight column and beam structure to accept new steel, floors, walls, and general circulation stairs, a second elevator, a second fire staircase, and a tighter but splendidly articulated new monumental staircase. Floors one and two would exchange "rabbit hutches" for steel columns. And all corridors and other public assembly areas would be reinforced to take 100 psf live loading, floors would be rebuilt where impact loading was expected, all structural members would be enclosed in fireproof sheathing, and stressed sections of the diagonal braces would be left alone.

There were no extant measured drawings showing the building as constructed. "Never take field dimensions for granted," Bruder warns. Hejduk and Bruder, their professional staffs, and students began this labor of love from scratch with an exact floor-by-floor survey which revealed that many column lines shifted as they passed through masonry walls on floors 1 and 2 to the basement.

The most dramatic moment of the renovation was the "finding of the cathedral," the nave formed when all floors at the south end were completely removed. In anticipation of 120-fthigh unrestrained shear walls (with unmentionable radii of gyration), Bruder raised three massive truss girder buttresses to the south and southeast walls, lashing the walls to the buttresses with wales sent through open windows to straps attached to inner wall surfaces. The circular elevator core braced the southwest corner. When all was cleared, workmen of George A. Fuller Co. made their way through camerawielding students, faculty, and press to begin the erection of steel. Less dramatic but no simpler was the removal of masonry walls on floors one and two. Loading was shifted, on module lines, to structural timber columns on either side of the original members from floors three to six (in breaks made in the masonry walls), to remove stress on masonry bearing locations. Shored timber floor beams were inserted at floors one and two to relieve the masonry between column lines. Upper floor columns dangled from suspension cables as ma-







Top: under north skylight on floor 6, diagonal brace reaches zenith. Architecture studio, above, evokes 19th Century spatial clarity with 20th Century form. Detail of column and beam joinery includes split-ring collar, built-up section beams, and Catalan vaults on railroad flanges.



Metamorphosis

sonry walls were demolished and columns and beams were installed. Where column line shifts appeared (as much as 8½ in.), grillage was placed on floor one to relieve Great Hall columns of eccentric moment. Elsewhere, columns were enclosed if structurally adequate, or reinforced with steel columns and gusset plates. Finally, in a reversal of the opening sequence, the building stress was restored to the column trees from the top downwards.

Corridor floors were reinforced by additional steel which reduced spans by one-third. On the south side, floors were replaced with reinforced concrete slabs. A special cushioned floor in the fourth floor sculpture studio floated a slab on heavy cup and spring assemblies 30 in. on center. For the Great Hall, a newly raked seating slab was poured to receive a seating plan (reduced from 1500 to 910, a figure the school does not find particularly constricting).

Fireproofing and services were installed with unusual elegance. Columns were finished in lath and plaster, as were most interior partitions, with such clean detailing and fine craftsmanship that workmen proudly exhibited their work to visitors. Services were concealed by taking advantage of generous ceiling height (averaging 15 ft).

The New York Times referred to the Foundation Building as a "dowager too proud for a facelift but in need of support," and Hejduk and Bruder have provided just that. The concealment of old details such as the ornate cast iron structure is more than adequately compensated for by the complex use to which the new simpler forms are enlisted. "My intention has been to preserve the *spirit* of the 19th-Century space," Hejduk explains, "while ensuring fire safety."

"I wouldn't say we made any great engineering inventions on this job," says Bruder. "But I would caution anyone undertaking a renovation to study the building thoroughly. Check soil conditions, field dimensions, and structure." The Foundation Building is an intelligent and artistic application of contemporary technology. And to update the *Times*, she is a very classy dame. [Roger Yee]

Data

Project: Foundation Building

Architects: John Hejduk; Ed Aviles, project head; Richard Cordts, Ken Schiano, Lenny Zola, associated architects: Werner Kinkel architect's representative.

Engineer: Peter W. Bruder

Construction: George A. Fuller Co.; Daniel G. Head, Vice President; William Fitzgerald, Project Manager; Stuart Steensma, Project Superintendent.

Client: The Cooper Union; William Baumgarten, representative. **Program:** renovation of existing building to provide classrooms, studios, offices, assembly and exhibition space, and 90,000-volume library. Total area of 145,000 sq ft.

Site: Cooper Square, New York, N.Y.

Structural system: steel framing, exterior bearing wall, reinforced concrete slab, vaulted composite floor.

Mechanical system: multizone HVAC drawing utility steam. **Major materials:** exterior, brown sandstone, wood casement windows, cast iron columns; interior, block and metal stud walls enclosed in lath and plaster, floors of vinyl asbestos tile, quarry tile, wood, and carpeting, suspended acoustical tile and plaster ceilings.

Cost: withheld by request of owner.

Photography: Cooper Union Public Relations (historic), H. Bernstein Assoc. (construction).



At left, column "floats" from suspension cables as load passes through temporary shoring timbers. Workman avoids direct stress zone as masonry yields to steel framing on ground floor east.



The "Cathedral" found. A tangle of bearing walls, illegal stairs, and dense ironclad bays bows to a cavernous majesty more evocative of late Romanticism than contemporary technology. Circular elevator shaft stands alone at building's southwest corner prior to erection of new steel structure. In foreground, workman is removing lower segment of a diagonal brace spanning six floors.



Early and recent views of Great Hall display care in preserving historic character of room. Note new floor slab, rear exit row, overhead sprinklers. Completed in time for 1974 commencement.



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Terminating subcontracts

If the architect directs the general contractor to replace a subcontractor for failure to perform, what are some of the issue involved? The case cited below illustrates one court's determination.

When a subcontractor fails to adequately perform, it may become necessary or desirable for the architect to direct the general contractor to replace him. Such a direction, if not validly based, has dangerous implications for both the owner and the architect. One of the primary considerations in such a situation may be whether the general contractor has the legal right to terminate the subcontract.

Some of the issues which may be involved when a general contractor seeks to terminate a subcontract were illustrated in a recent determination by an appellate court in New York (Schenectady Steel Co., Inc. v. Bruno Trimpoli General Construction Company, Inc., 35 L.R.N. No. 17, p. 12). In this case, the general contractor had entered into a contract with the State of New York to build a bridge by December 31, 1969. The general contractor in turn contracted with a steel subcontractor to furnish the necessary structural steel for the bridge, providing in such contract that "time is of the essence" and that the subcontractor's work shall be completed in 1968. When the subcontractor had entered into the subcontract, he had contemplated obtaining from his supplier 125ft steel beams in one piece, but he was unable to do so and, as a consequence, was required to purchase smaller beams and splice them together. In this process, it was required that all welds would have to pass a radiographic test before final acceptance. Initially, the subcontractor's welds could not pass the test and winter weather forced the subcontractor to suspend efforts for a few months until he could rearrange his facilities to move the welding process indoors.

In January and February of 1969, the general contractor insisted that the subcontractor provide a schedule as to when the subcontractor would complete his obligations and threatened to terminate his contract if he failed to do so. The subcontractor responded that it was proceeding with all possible speed, but could not furnish an accurate completion date. In March, the general contractor visited the subcontractor and, as a result, cancelled the contract and contracted for the steel elsewhere. The subcontractor then brought an action to

recover the compensation for the reasonable value of his services and the general contractor counterclaimed, asserting damages for the subcontractor's failure to perform. The trial court dismissed the subcontractor's complaint and awarded judgment to the general contractor on its counterclaim. This decision was appealed.

The first issue to be resolved on the appeal related to the applicability of the Uniform Commercial Code, which Code governs commercial transactions in most of the states of the Union. It was the general contractor's contention that the subcontractor's failure to furnish adequate assurance as to a completion date justified cancelling the contract under the express terms of that Code. The Appellate Court concluded that the Uniform Commercial Code did not apply, stating:

"The Code applies to transactions involving goods . . . but its provisions are not applicable to either service or construction contracts. . . . If service predominates and the transfer of title to personal property is an incidental feature of the transaction, the contract does not fall within the ambit of the Code."

The Appellate Court nevertheless ruled that even though the Uniform Commercial Code was not applicable, the general contractor was justified in terminating the subcontract under common law principles. The Court stated:

"At common law the pivotal issue is the timeliness of (subcontractor's) performance. As previously noted, the contract required (subcontractor) to complete the work in 1968 and provided that 'time is of the essence'. Thus, (general contractor) could properly have cancelled the contract on December 31, 1968 as (subcontractor) had not completed the work by that date. . . . However, (general contractor) did not so elect and instead permitted the contract to continue. By this action (general contractor) at that time waived its right to cancel for an untimely performance . . . and effectively converted the contract into one under which performance within a reasonable time was all that was required ... although it retained its right to seek damages for the delay. . . . However, even following this waiver (general contractor) could reimpose time as essential element upon notice to (subcontractor) calling for performance within a reasonable time . . . and this we find to have occurred by (general contractor's) letters of January 29 and February 11. These letters restored timeliness and (subcontractor's) failure to give more than assurances, after all the previous delays, that it would proceed 'with all possible speed' as opposed to the requested definite schedule, plus the state of progress viewed by (general contractor's) president on his March 1 visit, justified (general contractor's) termination of the contract."

In a dissent, a Justice of the Court concluded that the general contractor had waived his initial right to cancel the contract by permitting the subcontractor to continue his performance past Dec. 31, 1968 and that the then obligation of the subcontractor to perform within a reasonable time had not been breached as of the date of cancellation.

Authors: Bernard Tomson is a County Court Judge, Nassau County, N.Y. Hon. AIA. Norman Coplan, Attorney, is Counsel to the New York State Association of Architects, Inc. AIA.

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Books

Raymond Hood

Raymond Hood, Architect: Form Through Function in the American Skyscraper by Walter H. Kilham, Jr. New York; Architectural Book Publishing Co., 1973, 200 pp, illustrated, \$10. Reviewed by Robert A. M. Stern, partner in the firm of Robert A. M. Stern & John S. Hagmann, architects. A faculty member of Columbia's Graduate School of Architecture and Planning, he is the author of George Howe: Toward a Modern American Architecture, to be published by the Yale University Press in the fall.

Though a book about Raymond Hood is long overdue, Walter H. Kilham Jr.'s anecdotal memoir is not quite the kind of biography and critical monograph that one really had in mind. For one thing, it is too informally written and too dependent on the author's recollections as opposed to



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genuine scholarship. Regrettably, its bibliographical references are not broad enough to include such works which I would deem essential for any book about the period: Hitchcock's Modern Architecture of 1929, Hitchcock and Johnson's two books of 1932, Hitchcock's definitive survey of 1959, Scully's American Architecture and Urbanism of 1969. Regrettably, too, Wm. H. Jordy's recent study of American 20th Century architecture (the second volume of which contains an exhaustive discussion of Rockefeller Center) taken in combination with Winston Weisman's earlier discussion makes Kilham's discussion of that great complex virtually redundant.

Even Hood's own writings are not fully documented. And there are errors of fact: on a trivial level, the service entrance to McGraw-Hill is not on 39 St.; on a more serious level, legal landmark status has not been given to any of Hood's skyscrapers in New York (the McGraw-Hill and American Standard buildings have been proposed for such designation, but their status is pending; Rockefeller Center, regrettably, has not even been proposed).

While the author's admiration for Hood's talent, originality, and bravura is never in doubt, the book might have benefited from greater critical distance. Surely Hood's work can be viewed in a wider context than that presented without compromising his originality or the reader's perception of the architect's achievement. For example, though concrete evidence documenting Hood's interest in Le Corbusier's writing is established on the second page of the first chapter and a scheme by Hood for New York as a "City of Towers" is illustrated later on, the relationship between Hood's work in skyscraper design and Le Corbusier's ideas about tall buildings-and especially about American tall buildings of the 1920s'-is never substantially explored. This is especially strange (and somehow a bit ungracious), since Le Corbusier devotes a good deal of space in his When the Cathedrals Were White to Hood's greatest triumph, Rockefeller Center. And, since Hood's most advanced design for a tall building (measured in terms of the standards of the International Style as outlined by Hitchcock and Johnson), the Dobbs Ferry apartment tower project of 1932, is explicitly based on Le Corbusier's prototypical notion of the residential tower-inthe-park, and since Hood is quoted as believing that "congestion is good," it seems odd that Kilham fails to comment on what appears to be either a fundamental contra-[continued on page 114]

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Inspection & Service Contract. If you're going to call us

a name, make it Celotex. Philip Carey and Barrett

will both understand. They're part of the family.



Books continued from page 110

diction or, as I would suggest, a kind of Rosetta Stone to our understanding of the process by which Le Corbusier's sermonizing abstractions were transformed to suit the pragmatism of American practice in the critical years 1927–1932. Surely a comparison of Rockefeller Center and Howe & Lescaze's contemporaneous PSFS Building would have helped sharpen the argument—especially since such comparisons were frequently made at the time of their construction by Hitchcock, Le Corbusier, Howe, Mumford, and others.

Therefore, one may ask, what use is Kilham's book? For one thing, it conveys the boundless optimism of the late twenties, the confidence of American architects at a time when their fortunes were high and their leaders, among whom Hood stood in the front rank, were able to marry artistic ideals with the necessarily practical decision-making demanded by equally confident private clients such as Col. Patterson of the Daily News. Hood and other architects of his milieu, such as Ely Jacques Kahn and Ralph Walker, were often smug in their treatment of Le Corbusier's rhetoric, but time has shown that their images of modern life were potent ones as well; in



Circle No. 373, on Reader Service Card

fact, they knew a heck of a lot about how to get their ideas built and keep them standing. (It's not only maintenance but also design that makes Rockefeller Center look as fresh today as when built.) And, miraculously, when the bubble of 1920s' prosperity burst, Hood was still able to continue as a creative force—in fact, as the decisive talent on the Rockefeller Center team of architects—because he could give form to its bizarre but typically American marriage of altruism, cultural ambition, and daring capitalistic adventure.

An aspect of Hood's work which is ignored-and probably because, as Kilham implies. Hood himself was not especially interested in it-is that of stylistic sources for the details which, to their eyes at least, is one of the hallmarks of his architecture. The influence of the Paris Exposition of 1925 is cited only once, and Hood's friendship for Joseph Urban is cited without even making a connection between the work of the two. And what of the Cubist/ Purist/Expressionist European architecture of the 1920s'? Outside of the discussion of Le Corbusier already referred to, there are no references to other likely influences on Hood's form-making: Loos' work and writings in connection with the starkly elegant National Radiator Building in London; Hoger's Chilehaus; the work of Mallet-Stevens and Roux-Spitz; Poelzig's theaters. And, most importantly, Hood's great International Style counterpart, Erich Mendelsohn, is ignored. Without these references, one cannot explain the magnificent outpouring of detail beginning with the Radiator Building (black and gold), the lobbies of the McGraw-Hill Building (about which Vincent Scully once remarked, more in fondness than in sorrow, "Now I know what the inside of a juke-box is like!"), the splendid lighting effects, the dark surfaces and ethereal light emanating from the globe in the lobby of the Daily News Building, the splendid sleekness of the Rockefeller Concourse, the majestic sweep of spaces which compose the Music Hall, and so on.

It is really sad that this book seems to reflect such a naive approach to history, that it sustains so diminished a view of a talent that was at once protean and synthetic. Hood's was a talent that was always growing because it was always learning with its eyes. As an architect he had magnificent antenna and very good equipment for perceived images to new situations. His achievement convinces this reader that an architecture which pretends to originality in the simple sense is doomed to puerility.



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Gregson Manufacturing Company/Liberty, North Carolina



Products and literature





Stack files



Executive desk





Floor unit



Children's furniture features rounded surfaces and lightweight design to eliminate the danger of pinches, scratches, and bruises. Chairs in four colors are one-piece molded acrylic. Tables combined red acrylic insert with white rounded frame and matching legs. Tables and chairs stack or nest, can be used outdoors. Krueger. *Circle 101 on reader service card*

Square tube stack files. Modular units can be expanded to any height or width, and both large and small square tubes can be intermixed. Each tube in the unit is made of heavy fiberboard with aluminum reinforcing. Doors have a positive action spring catch and each tube has its own $2'' \times 2''$ ID card on the outside of the door. Available with square tube opening of 2% in. and 3% in. with filing depth from 2 to 5 ft. Plan Hold Corporation.

Circle 102 on reader service card

Wood finish. Cigarette-proof finish on natural, or solid color wood tables will permit a cigarette to burn itself out. Finish is alcoholproof, does not alter the appearance of fine lacquer or natural wood finish, ideal for hotels and motels. Intrex, Inc. *Circle 103 on reader service card*

Poke-thru floor unit for wiring receptacles and telephones in concrete floors. UL-listed assembly consists of floor service box, fire-rated center coupling and barriered junction box. Complies with OSHA. Raceway Components Inc. *Circle 104 on reader service card*

Executive desk in lacquered white ash burl, framed in mahogany with polished stainless steel base, 75'' x 39'' x 29'' h. has matching credenza. Other woods, finishes, and sizes are available. Helikon Furniture Co. *Circle 105 on reader service card*

Grandfather clock collection. Bronze acrylic and solid oak case with natural oiled finish, ebony base, clock has two-tone hour and half-hour strike movement, works which are visible. Height 56 in. Another model has ebony and oak case with natural oiled finish and matched butterfly oak base panel. Glass insert in door. Polished chrome tubular frame, pendulum, and weights. Satin aluminum dial with black hour markers. Weight driven Westminister chime movement. Chimes every 15 min. and counts number of hours. Height 62% in. The Howard Miller Clock Co.

Circle 106 on reader service card

Office furniture and work stations. Called "Series 9000," components can be assembled in infinite ways. Features include end panels which snap open for lay-in wiring; drawer assemblies which can be suspended anywhere under the work surface; top surfaces which adjust to a tilted position or four working heights. Spanner panels which-serve as nonload bearing dividers are designed with self-storing hinges to permit any angle connection. All assemblies can be dimensioned to suit the working radius and height of the user. Credenzas, workstation assemblies, and spanner panels are available in 65 in. or 53 in. heights, are offered in fabric, vinyl, or wood veneers. Top surfaces are in high pressure laminates or in walnut or oak veneer. Steelcase, Inc. *Circle 107 on reader service card*

[continued on page 120]



DOORWAY NOTES ...

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LCN CLOSERS, Princeton, Illinois 61356

The secret of long term insulation performance in built-up roofs.

The fundamental job of insulation in a roof system is to minimize energy loss, thereby providing a comfortable interior for the building. To do the job, an insulation must have good thermal resistance; and to hold up over the years, it must also have good moisture resistance. Paradoxically, though, while the use of insulation is beneficial, it may well contribute to problems that adversely affect the performance of the total roof, and of the insulation material itself.

For example, using insulation prevents condensation on interior surfaces, but it also increases the probability of condensation within the roofing system. In winter, for instance, by warming the interior surface and cooling the exterior surface, insulation increases the chances that water vapor from the warm side will condense within the roof cross section.



The use of insulation stabilizes deck components by reducing their temperature variations and the consequent expansion and contraction. But when it's sandwiched between the roof deck and the membrane, insulation isolates the membrane, allows no moderating temperatures from inside—warming heat in winter, cool temperatures in summer—to reach the roof surface. This means the membrane undergoes more sudden thermal changes, and the risk of membrane splitting, aggravated by this thermal shock, is increased. And by raising roof surface temperature in summer, insulation helps speed the reactions that drive volatiles out of the asphalt, making it more susceptible to alligatoring, shrinking and cracking.



Obviously, it's not so much "bad" insulation that creates the problems, but the <u>position</u> of the insulation within the total system. By changing the location of the insulation, reversing the positions of the insulation and the mem-<u>brane</u>, the properties of the insulation can work in harmony with natural laws and with the other components of the roofing system . . . and the problems are virtually eliminated.



There are many excellent insulating materials available that provide good thermal resistance—provided they are protected between the built-up roof and the vapor barrier to guard against moisture—but only <u>one</u> insulation material has all the necessary properties and characteristics to work effectively in this reversed position.

That insulation is Styrofoam* RM brand plastic foamone of the best insulating materials ever developed. Being polystyrene, Styrofoam RM is inherently moisture resistant. This quality is enhanced by a unique closed cell structure which gives Styrofoam RM outstanding thermal resistance. In fact, Styrofoam RM brand plastic foam is the only insulation on which a realistic guarantee of thermal efficiency is provided . . . a minimum of 80% for 10 years.

The thermal resistance of Styrofoam has been proven in thousands of cold storage applications. Docks floating high and dry after 25 years in the water attest to its moisture resistance. And its compressive strength and resistance to physical abuse have been proven in its use in highways as below-grade insulation. Styrofoam RM withstands exposure to solar heat, cold, the violent effects of thermal cycling, and is highly resistant to freeze-thaw deterioration.



With all these characteristics, Styrofoam RM brand plastic foam alone can serve as the focal point of a roofing system logically engineered to eliminate and control the effects of moisture and temperature on built-up roofs. In this patented** system, IRMA (Insulated Roof Membrane Assembly), the built-up membrane (three plies of 15pound asphalt saturated felt) is put down first directly onto the roof deck. The Styrofoam RM insulation is placed on top of the membrane and covered with crushed stone.



In this position, the Styrofoam RM not only stabilizes the roof deck structure, but the membrane as well—insulating it and protecting it from solar heat, cold, ultraviolet degradation, freeze-thaw, and thermal shock, thereby eliminating the likelihood of alligatoring, splitting, ridging, shrinking and blistering. The membrane itself is a vapor barrier because it is on the warm side of the insulation, the same as the position of the vapor barrier in insulated walls and floors. The dew point always lies <u>above</u> the membrane within the Styrofoam RM. Moisture can't condense <u>under</u> the membrane; it won't condense <u>within</u> the insulation, because of the inherent resistance of Styrofoam RM to moisture; and because there is no built-up roof <u>above</u> the insulation, water can't become trapped in the system.

During construction, even if a dropped tool, a ladder leg,orpiece of heavy equipment should penetrate beyond the layer of crushed stone and penetrate the Styrofoam RM, the material's closed cell structure stops water from entering the system. The insulation retains its insulating value and the membrane remains unharmed. And Styrofoam RM continues to protect the membrane from maintenance and service "traffic" for the life of the roof.

Today, the thousands of IRMA roofs in service are proving, day after day, that Styrofoam RM means long term insulation performance . . . and long term performance for the total roofing system as well.

The patented IRMA roofing system was developed by The Dow Chemical Company more than 20 years ago. But only within the last five years, and only after two decades of extensive testing under all kinds of conditions, has the system been made available to the roofing market through Amspec Inc., the exclusive national marketing organization for construction products manufactured by The Dow Chemical Company.



Amspec's trained corps of materials and systems specialists provides technical information and design assistance to architects, engineers and contractors in the field, and is supported by Dow's in-depth technical resources, product research and development. In each area of construction it serves, Amspec offers established quality, the broadest product line available, and the capability to combine products and systems for the best in performance at the lowest cost. Other effective building systems from Amspec include:

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Chairs. 14 different ones in series—from secretary to president—have a continuous contoured molded sponge rubber frame, adjustable seat positions, and posture back control option. Domore Office Furniture, Inc. *Circle 108 on reader service card*

Wallsculpture. A collection of indoor/outdoor vinyl panels features sculptured white designs in heavy-gauge vinyl and, according to maker, it is washable, waterproof, nonflammable, and easy to install with a bead of contact adhesive. Approximate size is 2' x 2' each. The Decro-Wall Corporation. *Circle 109 on reader service card*

Stereo loudspeaker system. Compact (1 ft deep, 6¼ in. dia. and 7¼ in. high), the speakers may be placed on walls, ceilings, tables, and shelftops and can be used with any stero or amplifier unit. Available in several wet look colors. Especially suited for use in corporate offices, modern dwellings, and yacht interiors. Intercontinental Enterprises Company. *Circle 110 on reader service card*

Elevator cabs. A basic steel shell accommodates cabs in 20 designs with features that can be combined to offer a wide range of interiors. Designs come in four series: for apartment buildings, service elevators, hospitals, and office buildings. Wide range of color schemes, plus wood-grain and natural wood paneling and a variety of ceilings and floor carpeting. Oxidized bronze, woven wire mesh, and other special finishes are available. Otis Elevator Company. *Circle 111 on reader service card*

Upholstery materials. Leathers, fabrics, and vinyls have been coordinated for the architect, specifier, and designer. Collection consists of domestic wools and wool blends in solids, stripes, and a variety of textures; fire retardant vinyls; and 100 colors in leathers. International Fabrics, Inc. *Circle 112 on reader service card*

Study carrels. Developed by the Research and Design Institute (REDE), the carrel is said to function as an individual unit or as an entire learning environment. All components are standard; conventional library shelves and accessories hang interchangeably on the panels at every height. Assembly and disassembly is with keyhold slot connectors. Panel materials are wood, plastic laminated, or carpeted; edges are protected by bumper strips. Flexible to accommodate pre-schoolers as well as students, and teachers, states maker. William Bloom and Son, Inc.

Circle 113 on reader service card

Panel system. High-density %-in.-thick particleboard panels, are surfaced with velvet-finish high-pressure laminated plastics in a choice of more than 150 woodgrains and solid colors. Extruded aluminum moldings are attached to studs or furring strips; grooves in the edges of the panels slipover and lock into the moldings, which are virtually hidden. Included is a complete line of finish moldings surfaced to match, contrast, or complement panel surfaces. Wilson Art. *Circle 114 on reader service card*

← Circle No. 346, on Reader Service Card



Chairs





Stereo speakers

Wallsculpture

Wall switch that sticks on the wall enables office buildings and plants to control lighting and reduce use of electricity, according to maker. It is installed on any wall without cutting holes, snaking cable, or making major alternations in existing wiring. Consists of a solid-state step down relay, a .005"-thick self-adhesive conductor wire called surface tape, and a touchbutton switch. Steps down current to 2 v milli-amp level. Wire is easily camouflaged by paint or wallpaper. Unit can be installed in less than 30 min. Especially useful in buildings where walls are too thin for conduit and switchboxes. Switchpack Systems, Inc.

Circle 115 on reader service card

Bath ensembles. Called the International Collection, each ensemble is available in its own color and is made to special order. Comes in three styles: Mediterranean, Oriental, and Continental. American Standard Co. *Circle 116 on reader service card*

Carpetiles are manufactured from selected aircraft and truck tire sidewalls, and come in 12" x 12" tiles, trapoid modules, and in 12" x 25' carpet strips for complete room applications. Surface appearance is like a chenille carpet texture with a heavy rubber backing to protect flooring. Particularly designed for use in golf clubs, pro shops, and skating rinks, or for any heavy traffic public area such as airports, locker rooms, etc. Low flame-spread rating. Natural charcoal color only. Can be cleaned by vacuum cleaner, broom, or by shampooing. International Rubber Corp. *Circle 117 on reader service card* [continued on page 122]

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Products and literature continued from page 121

Miniature accent lights. The one-ball models are for use on small paintings or statuary; by adding additional ball lights they can be used for large works of art. One-ball model has magnetic swivel; 2, 3, and 4-ball models feature 31/2 in. balls on universal swivels. Available in black or antique white. Rexter Corporation.

Circle 118 on reader service card

Contract carpet. Eight qualities range from tight level-loop construction to the handcrafted rope-yarn look, in either 100 percent Acrilan or 100 percent wool face yarns, all in 12-ft widths and in six to eight Berber-type colors. Customills. Circle 119 on reader service card

Literature

Lighting guide. Titled "Light in Churches," 24-page brochure is useful to architects, interior designers, and building planners concerned with lighting any major interior space. Describes four types of interior lighting: utilitarian or work light, architectural light, focal or accent light, and festive or ceremonial light. Each function is explained by text and photos of contemporary and restoration installations and by illustrations of natural lighting in many of the world's great edifices. The Rambusch Company.

Circle 201 on reader service card

Hospital furniture. 36-page catalog illustrates complete line of hospital furniture and equipment. Featured is the FRED hospital bed that won the American Iron & Steel Institute award for 1972-73 for the Best Engineering in Steel in the Category of Medical and Scientific Equipment. Described is the hand control which allows patients to start the bed's motors with air instead of electricity. Other hospital beds, coordinated cabinets and chests, overbed tables, and chairs for lounge, visitor, and geriatric use are also included. InterRoyal Corporation. Circle 202 on reader service card

Patient chair offers a choice of nine posture settings, can go from an orthopedic chair to fully equipped hospital or geriatric chair. Made of wood, it is upholstered in laminated upholstery fabrics and looks like a normal piece of furniture. When placed on steel wheel unit, chair becomes mobile. Rudd International Corporation.

Circle 203 on reader service card

Gypsum veneer plaster is explained in 12-page brochure which also tells how it should be applied and the various components in this system. Pictures of finished projects are included. Gypsum Association. Circle 204 on reader service card

Painting systems for exposed structural steel is featured in brochure containing photographs and descriptions of coating systems for general construction, heavy industrial, chemical, and coastal exposures and for solvent-restricted areas. **TNEMEC** Company, Inc.

Circle 205 on reader service card



Miniature accent lights

Color chip cards illustrating the spectrum of colors in which library bookstacks, and other library furnishings and equipment are available. Estey Corporation. *Circle 206 on reader service card*

Cast aluminum lanterns. Form Nine catalog illustrates units that are available in post, suspended, and wall-mounted designs and can be used for lighting malls and walkways, lobbies and entrances. Form 11 catalog describes cube lanterns that can be top-post mounted, suspended, or inverted mounted. Panels can be painted any color and with graphics to indicate parking areas, exits, etc. Installation configurations included. Gardco Manufacturing, Inc. *Circle 207 on reader service card*

Patient furniture for nursing homes is covered in 36-page color catalog. Full line in six styles, includes contemporary and period styles. InterRoyal Corporation. *Circle 208 on reader service card*

Metal roof systems. Four kinds of metal roofing, plus metal coping are featured in brochure which also includes specifications, reroofing, sizes, shapes, and delivery as well as integral drawings and photos of finished installations. Overly Manufacturing Co.

Circle 209 on reader service card

Compact kitchen units. Data manual consists of photographs, mechanical drawings, and specifications of all models in line. Units provide sink and drainboard, refrigerated and frozen food storage, non-refrigerated storage area, back oven, broiler, and surface cooking units. Each unit is of porcelain on steel with heat-proof, fadeproof, and stain-resistant surfaces. Dwyer Products Corporation. *Circle 210 on reader service card*

Interior wall paneling brochure covers wide selection ranging from custom styles and prefinished to middle- and low-budget hardwood plywood and hardboard patterns. Also contains information about panel core constructions, fire hazard classification table, and species and grades of face veneers and finishes. U.S. Plywood.

Circle 211 on reader service card



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*Rite-On, Wipe-Off dry marker pens are now available through local AllianceWall distributors.



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Notices

Appointments

Arthur C. Hoelck has been named senior associate at Tucker, Sadler & Bennett, AIA, San Diego, Calif. Stephen A. Dibble, Steven W. Owens, and Thomas L. Silvers are now associates.

Holabird & Root, Chicago, has announced the following new associates: Orrin Arvold, AIA; Thomas Benson, Edward Ehlert, John Heidbreder, AID, Walker Johnson, AIA, Burton Sobel, PE, Soo-Cheong Tye, PE.

William N. Hollman, AIA has been promoted to principal of The Twitchell & Allen Group, Sarasota, Fla.

Alan C. Balhorn has been named associate director of the medical facilities architecture department at Ellerbe, Bloomington, Minn. Malcolm L. Nietz is the new director of engineering.

Ellis/Naeyaert Associates, Inc., Detroit, has made the following appointments: Roger S. Naeyaert, chairman of the board; William Ellis, senior vice president and vice chairman of the board; Philip Nicholas, executive vice president, J.E. Genheimer, executive vice president; Robert Tobin, senior vice president; and Fabio Trindadi, vice president, director of operations.

A.J. McArthur, AIA has been named vice president/general manager of Max O. Urbahn Associates, Inc., New York City.

De Leuw, Cather & Company, Chicago, has announced the following appointments: Gene M. Randich and Donald W. Cather, senior vice presidents; Richard P. Howell and Edwin R. Videki, vice presidents; Henry D. Stubing, vice president and assistant secretary; Dorr M. Anderson, Kenneth G. Cook, William R. Preece and John M. Zimmer, assistant vice presidents; D.W. Harig and F. David Shiver, assistant secretaries. Robert W. Kite, AIA has joined Daniel, Mann, Johnson, & Mendenhall, Los Angeles, Calif., as vice president, Architecture/Engineering Group.

William L. Umberger, RA and James D. Young, Jr., AIA have been named associates of Lawrie & Green, Harrisburg, Pa.

James L. Miller has been elected president and chief operating officer of INTER-FORM INC., Compton, Calif.

W. McNeill Baker, AIA has been named executive vice president of Edmunds & Hyde, Inc., Baltimore, Md.

CE Maguire, Inc., Providence, R.I., has announced the following appointments: Themis L. Carvounis, PE and Sam Rupolo, vice presidents; H. Greg Arthur, Charles Chaloff, AIA, PE, Russell Tong, PE, John Yamamoto, PE, assistant vice presidents.

Timothy Wilkes has joined the Hall & Goodhue Community Design Group, Monterey, Calif.

Edward M. Tower, Clifford H. Morse and Charles R. Ince, Jr. have been appointed vice presidents of John Carl Warnecke & Associates, San Francisco.

E.R. Faraj has been named director of fabric fire safety for Interior Design Associates, Toronto.

Sol King, FAIA, has been appointed chairman of the board of Albert Kahn Associates, Inc., Detroit. Daniel H. Shahan, PE is now president and Charles J. Allen, PE has been promoted to executive vice president.

Lynn Sheehan was made vice president of RYA/Space Planning Inc., Dallas, Tex.

¹John L. Haag has been appointed associate of Esherick Homsey Dodge & Davis, San Francisco.

Carroll B. Johnston has been named director of planning at Burke Nicolais Archuleta, Los Angeles, Calif.

Jack W. Hester has joined Maxwell Starkman & Associates, Beverly Hills, Calif., as project director.

Burton W. Berger, AIA has been named director of the Newark, N.J. office of Gruzen & Partners.

Searle Wilbee Rowland, Toronto, has appointed the following associates: Richard H. Baggley, MRAIC; Irving S. Cooper; J. Hugh Westren, MRAIC; Peter J. Manson-Smith, and Victor S. Marko.

Edmund J. Skutnik has joined Dames & Moore, Los Angeles, as senior planner.

Randall Myers has been appointed vice president, assistant director of design (interiors) for the Los Angeles office of Welton Becket & Associates.

Dalton Dalton Little Newport, Cleveland, Ohio has named the following new associates: Theodore T. Conrad, John R. Geyer, Joseph J. Deringer, William R. Laubscher, Gerald B. Linn, Ben M. Marino, William D. Nielson, Donald T. Parent, Jerry J. Payto, Willard C. Pistler, Jr., Dennis H. Sherman, James M. Lowe, J. Sherman Thomas, Richard C. Beckert, P. Joseph Amati, August F. Hoenack and Andrew R. Ewing.

William T. Ingalls, Jr., AIA has been appointed associate architect of Rossen/ Neumann Associates, Southfield, Mich.

Expansions, reorganizations and mergers

The Northwest regional office of Daniel, Mann, Johnson, & Mendenhall has merged with Hilton Engineers & Planners, both of Portland, Ore., to form DMJM-Hilton.

Gaio Associates, Ltd. has opened an overseas office at 69 Fleet St., London.

Travers/Johnston Architects & Planners has opened a Dallas, Tex. office in the Elmbrook Gardens Complex.

Hellmuth, Obata & Kassabaum, Inc. has formed a subsidiary, Interior Architecture, Inc. (InterArc) at 315 N. Ninth St., St. Louis.

New firms

James C. McAninch, AIA-Robert Edward Lyon Architects, 693 Veterans Blvd., Redwood City, Calif. 94063.

Charles F. McAlpine, Jr., AlA, Paul G. Davis, PE and Martin J. Yohalem, PE have established Davis-McAlpine-Yohalem & Associates, Inc., 233 Commercial Blvd., Lauderdale By the Sea, Fla. 33808.

B.T. Jones and Bruce C. Bower have formed Jones & Bower, 316 W. Central Ave., Winter Haven, Fla. 33880.

Seymour M. Tatar, AIA, AIP, John L. Lininger, John B. Clark, AIA and E. Kayden Wood, AIA have established Tatar Lininger Clark Wood, Inc., 100 S. Orange Ave., Orlando, Fla. 32801.

Building materials

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

Desert Samaritan Hospital, Mesa, Ariz. (p. 80). Architects: Caudill Rowlett Scott, Houston, Los Angeles, Chicago, New York; Drover Welch & Lindlan, Phoenix. Structural Steel: Evans Steel & Mfg. Co. Reinforcing steel: Reppel Steel Co. Prestressed concrete: Tanner Pre-Stressed and Architectural Concrete Co. Sheet vinyl flooring: Sun Control Tile Co., Inc. Carpet: Sears, Roebuck & Co. Acoustical lay-in grid and drywall: Curtiss-White. Roof system: Custom Roofing Co., Inc. Windows: PPG¹Industries, Inc. Doors: Weyerhaeuser; PPG Industries, Inc. Kitchen equipment: Market Forge Co.; Stainless Products, Inc. Televised visual paging and sound systems: Motorola. Elevators: Montgomery.

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Architect: Position available for a person having experience in specification writing and job supervison. Salem is located 60 miles from the Pacific Ocean and 90 miles from skiing in the Cascade Range. Send experience record and salary requirements to Carkin & Sherman Architects, 570 Liberty St., S.E., Salem, Oregon 97301.

Architects: For positions in working drawings, project management and design. Many challenging projects in an office with highly qualified personnel in architecture and engineering. Location excellent in community of 300,000. Send resume or call Greg Slaybaugh, Daverman Associates, Architects and Engineers, 200 Monroe NW, Grand Rapids, Michigan 49502, (616) 451-3525.

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Architecture Faculty: Rapidly developing architectural program seeks qualified professional to teach fundamentals of design and architectural graphics. Professional degree necessary; teaching experience desired. Full time position in 2-year college starting Sept. 1. Rank and salary depend on qualifications. Send resume to Chairman, Mechanical Tech. Dept., S.I. Community College, Staten Island, N.Y. 10301. No phone calls. An Equal Opportunity Employer.

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Faculty Position: Permanent faculty position available for September 1974. Architectural engineer or architect with a minimum of three years professional experience and some teaching experience desired. Masters degree in architecture or Ph.D. in Engineering, as well as professional registration, preferred. Should be able to teach acoustics, illumination, specifications and estimating, building materials and construction methods as well as design. Salary and academic rank commensurate with background. Send resumé to Department of Civil and Architectural Engineering, University of Wyoming, Box 3295, University Station, Laramie, Wyoming 82071.

Landscape Architect/Urban Designer: Small and expanding landscape architectural firm seeks graduate, minimum 3 years experience with design qualifications to direct broad range of projects. Must be willing to work independently in loose but dynamic situation. Send resume and samples of work to Edwin Sanborn, 620 N. Carroll St., Madison, Wisconsin 53703.

Project Manager: Architectural-engineering firm has immediate opening for registered architect with strong experience in educational facilities. Principal area of practice includes Indiana and Ohio. Submit complete resume in confidence to: W.W. Schmidt, Fanning and Howey, P.O. Box 71, Celina, Ohio 45822.

Senior Draftsman: Florida based designbuild firm has position for responsible, aggressive, conceptual design department coordinator. Must be capable of leading design team, contacting building departments, and being "right hand" of chief designer. 5 years commercial/industrial design-drafting experience necessary with management capabilities. Send resume and salary requirements to T. Montero, AIA, Mathews Corporation, 5644 N. Dale Mabry, Tampa, Florida 33614.

Teaching Positions: A new building permits the search for several faculty evidencing strong potential for sustained contribution to the educational program in the years ahead. Teaching abilities desired in architectural design/design method, environmental technology, structures and construction. Required qualifications include professional degree(s), professional registration and/or work/research experience. Some teaching experience preferred. The University is a nondiscriminatory, affirmative action employer. Send resume and two letters of reference to Department of Architecture, The University of Michigan, Ann Arbor, Michigan 48104.

Situations wanted

Architect: AIA, registered eight states, NCARB. 14 years professional experience in all phases of contemporary practice including principal in own firm, and in senior corporate administrative and management positions. Desire challenging position with progressive, growth oriented organization. Reply to Box #1361-715, Progressive Architecture.

Architect: 37, married, B. Arch., registered in Ohio, 16 years of diversified experience in a variety of projects. Main responsibilities of architectural practice are in design development and contract document production. Seeking project architect position and responsibilities. Desire to locate in the Miami, Florida area. Reply to Box #1361-716, Progressive Architecture.

Architect: Urban design and design oriented, NCARB, AIA. Licensed in four states. Formerly principal in two small-to-medium sized firms. Eighteen years experience in educational, institutional, commercial, governmental, religious and residential projects. Design awards. Additional skills and interest in urban transportation, solar energy, graphics and photography. M. Arch., A.B., Harvard. Seeking responsible position with firm offering full range of environmental design services. Location open. Opportunity for advancement prime. Reply to Box #1361-717, Progressive Architecture.

Design Director: AIA, NCARB, B. Arch., M. Arch., 20+ years diverse practice, management, awards and published work. Design experience includes facilities, furniture, graphics, contract interiors, land planning and automated procedures. Seeks position in South or West Coast to administer facility programming and design, leading to partnership or equity status. Reply to Box #1361-718, Progressive Architecture.

Director of Design: For medium size A/E firm. Excellent designer, degreed, licensed, NCARB, veteran of 11 years private practice with P&L responsibility. Presently design manager, A/E subsidiary of large engineering/constructor company. Want to leave oversaturated Northeast. Am successful in selling my design concepts to governing agencies as well as to clients. Have received design awards. Willing to break in at a lower level but I should continue to participate in management decisions to warrant my salary. Illustrated resume on request. No executive search firms, please. Reply to Box #1361-719, Progressive Architecture.

Engineer: P.E., 10 years of traffic and transportation planning expertise. Experienced in parking, signing, intersection improvements, traffic studies, economic

West Coast contributors, Sally examples, by one of P/A's Woodbridge. The second article in a series on the survival of regional design (following the March article on the Southwest) links the widespread preservation efforts in the Puget Sound area to the simplicity of new architecture there, both symptoms of "loving environmentalism."

World's Fair architecture will be the lively topic of two articles: an assessment of the current fair at Spokane and its permanent impact on the city, by Roger Montgomery, and a thoughtful article on the legacies of earlier fairs, ranging from urban form to souvenir dinnerware, by Lawrence Zimmerman.

Frei Otto's latest suspension structures, these for a conference center near Mecca, will be shown with photos by co-architect Gutbrod and description by Walter Thiem.

analyses, and large scale transportation planning. Desire part-time freelance work in New York-New Jersey area. Resume on request. Reply to Box #1361-720, Progressive Architecture.

Registered Architect: AIA, 18 years practice, heavy design and production experience in schools, hotels, condominiums, office building ; holding now Project architect and chief designer position, seeking similar position with partnership potential—or will consider overseas Position. Reply to Box #1361-721, Progressive Architecture.

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