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March 1974

Progressive Architecture

59 Editorial: Regionalism lives

60 Regionalism: The Southwest

The work of Antoine Predock and Bennie M. Gonzales incorporates an obvious respect for the climate of New Mexico and Arizona

78 Form follows conflict

Within the context of Japan's production-consumption cycle, a new Pepsi canning facility expresses an architect's philosophy

Buildings that believe in science

An embodiment of society's broad assumptions about science is represented in a new college science complex in Binghamton, N.Y.

88 Candide in St. Louis

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Profile of a young firm: Hoffman/Saur & Associates has grown through sensitivity to clients and an acceptance of challenges

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Cover: The Citadel apartment complex in Albuquerque, N.M. by Antoine Predock (p.61). Photo: David Morton





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Views

In defense of BART

pollution.

In the same issue (P/A Dec. 1973) in which a landscape architect rightfully objects to architects' arrogance on the subject of "parkitecture," we have the article on "Architecture west," in which the author takes to task everything about the Bay Area Rapid Transit System, except, of course, the architecture, with the implication in the last sentence that the architectural profession, as champion of the masses, could have done much better, had they only been given complete charge.

As a transportation engineer on that project, I wish to point out the following: 1 The most important reason for the rapid transit system (not mentioned in the article) was to provide an alternative to the profileration of auto-oriented transportation, namely, the freeway. As such, the transit routes necessarily follow certain alignments more or less dictated by topography, existing and future land development patterns, and trip-desire lines. 2 "Limited bus rights-of-way," as suggested by the author, could not provide the peak-hour passenger capacity at the level required, besides contributing to air

3 Rail rapid transit was never intended to function by itself, but in conjunction with feeder buslines which would furnish ancillary service. In this way, "homes and workplaces of low-income people" would be connected in a total transportation system. 4 On the one hand, the author accuses BART of representing a "Maginot Line of transportation planning"; on the other, he deprecates the "fancy equipment" (i.e., innovations) for not working "right," to the point of chortling over the baffling of ticket dispensers. In actuality a number of "exotic" travel modes were investigated early in the planning process, including monorails, and rejected on grounds of lack of proven reliability. (Presumably, the trains do run on the tracks?)

5 While the original (1954) origin/destination data may have been "crude" by today's standards, they represented the best available at the time. More sophisticated information would undoubtedly have led to the same or very similar results. 6 Had the rail transit alignments not followed existing railroad or freeway rightsof-way and instead "blasted" through new corridors, BART would have been accused of ruining communities, etc., etc. 7 Since the trains run both ways, apparently there is nothing preventing low-in-

come people from using the rail system for reverse commuting to the suburbs, where planners such as Davidoff tell us there are all kinds of new jobs opportunities. 8 With all the other difficult decisions made, it was comparatively easy for architects to do "their thing" in station design.

In short, author Montgomery seemingly wants to have it both ways: celebrate architecture and architects while excoriating nonarchitecture and nonarchitects. In fact, the entire BART system represents a cooperative "architectural" achievement, in the general sense of the word. If some parts "work" better than others, that is the nature of projects of such scale, scope, and innovation.

Get off your white horses! Alan L. Chase Wilmington, Del.

P/A awards issue

Your magazine continues to look good, as always. I was much impressed with this year's awards program because the results reflect good, earthy, everyday design problems, rather than the personal whims and sometimes empty philosophy of the jury, or the gem type projects which never really get built!

William H. Kessler, FAIA Grosse Pointe, Mich.

There will be no quick thumbing through "the pictures" of this year's P/A Awards. How nice to be able to think about the ideas and issues suggested. It's a good issue.

Naomi Leff (architect) John Carl Warnecke & Associates New York

Concerning your 21st annual awards issue, I would like to comment on one facet—your jurors' comments. It seems that this year a rather strange phenomenon has taken place. The jurors took it upon themselves to single out a particular style of architecture—''Le's maisons''—and condemn it in an oh so self-righteous manner. Led, of course, by Ms. Brown (the queen of the Philadelphia school) the panel *tried* to put down a definitive, emerging design aesthetic.

From one of us who does not follow the ideals of the Philadelphia school and does not enjoy the ideals of "stick-on decorative

flourishes," I find the emergence of the neo-Corbusian, machine aesthetic a welcome if not long overdue return. We have "learned from Las Vegas" and personally I'm tired of it. Bravo to the 10 percent. Peter Blitstein

Ehud Feldman Associates Los Angeles

Kudos to AIA

It was a pleasure to read about the formation of the AIA Research Corporation in your January News report. The pleasure is almost relief in that it is years overdue.

It is imperative that we architects think collectively and long range. We have functioned collectively, as in the AIA of past years, primarily to discover and implement ways of bettering our individual practices. Better expertise with our "tools-of-thetrade" is important, but it is just not enough to be efficient practitioners. There is an urgent need for a collective, largescale, inter-professional overview.

Congratulations AIA! Right on! William C. Lammey ISD Incorporated Houston, Tex.

Interior design education

We noted with a great deal of interest the article in the November 1973 issue of *Progressive Architecture* on "The education of an interior designer" by Forrest Wilson. It is extremely disturbing to note that Mr. Wilson neglected to mention the existence of the Foundation for Interior Design Education Research which is currently accrediting schools of interior design throughout the United States.

Currently there are six schools accredited by FIDER. Our actual program of accreditation began in January 1973. We feel that this was an unfortunate oversight in light of the fact that he is well aware of our program and has received copies of our publications. There are also standards for the accreditation of schools of interior design and, while he is correct when he says no design curriculum is fixed, we do feel that this should have been called to the attention of those interested in the education of interior design.

Gary O. Robinette, Executive Director Foundation for Interior Design Education Research McLean, Va.

What's in a name?

Thank you for the coverage of our work in the December issue. My partner John and I [continued on page 13]



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Views continued from page 7

have only one regret, that credits to consultants and to the staff who contribute so much to whatever success our work enjoys were omitted: Steven Foote, Ralph Frischman, John Anhorn, Ronne Fisher, Jeremy Lang, Daniel Colbert, William Parker, Craig Whitaker.

Robert A.M. Stern Robert A.M. Stern & John S. Hagmann New York

Credit corrections

Along with the record number of submissions in this year's P/A awards program. the largest jury, and the quantity of projects cited or awarded, came those things magazine editors dread: errors. Of the nearly 300 credits requested, we admit that we mangled a few. In the order in which they appear in the January issue, these corrections or clarifications are in order: Richard Fleischman Architects, Inc., submittor of the Cleveland Heights/University Heights Comprehensive Plan (p.59), was the design coordinating architectural firm; their citation was given for the design strategy devised for use by eight other firms to complete the projects. The firms are listed correctly, with the exception of a misspelling of the name Woodard in the firm of Rode-Kaplan-Curtis & Woodard. The 15 sites are in Cleveland Heights/ University Heights, not "scattered throughout the city of Cleveland."

R.M. Kliment (p.60) points out that we made Frances Halsband Francis, and we apologize to her.

The Urban Design Council's zoning proposal (p. 74) applies to the entire city of New York, not only to "lower Manhattan" as stated. Also, there are 37 elements in the program, not 337.

Daniel, Mann, Johnson & Mendenhall (p. 77) principal Abraam Krushkhov came out with no "h" in his name.

As a key member of the Georgetown Planning Group (p. 78), the firm of Wallace McHarg Roberts & Todd was inadvertently omitted from the credits, and the name of the economic planning firm of Hammer Greene Siler Associates incorrectly ended in "Silver."

Perry, Dean & Stewart (p. 86) hasten to point out that their study for Massachusetts General Hospital was not for an "outmoded existing hospital," although the research *could* be applied to such facilities.

We offer our apologies for these oversights and errors, and thank those involved for patiently pointing them out to us.

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News report

Outstanding design achievements

If the proliferation of awards programs around the country continues, soon a prize category will exist to suit all buildings. Juries have awarded honors recently to projects ranging from private airports to art museums and everything in between. Industrial competitions usually stress specific products with the notable exception of the Owens-Corning Fiberglas Corporation's energy conservation awards.

That program, now in its second year, was initiated prior to the actual energy crisis and, while it might include better insulation of buildings, it goes far beyond the sponsor's interests. Perhaps this explains why some of the top winners have less to say visually than they do beneath the surface, in other words, in terms of technology. Unlike traditional awards, they are "design" oriented only to a point while directing most emphasis squarely on conservation.

First prizes in the Owens-Corning competition went to structures in three categories—industrial, commercial, and institutional. They are, respectively, the **General Electric Company's Lynn Utilities Operation** in Lynn, Mass., designed by the company's own construction and engineering section; **Skidmore, Owings & Merrill,** San Francisco, for Weyerhaeuser World Headquarters, Tacoma, Wash.; and **Smith, Korach, Hayet, Haynie Partnership,** Miami, Fla., for the Boca Raton Community Hospital in Florida.

The three honorable mentions went to **Cambridge Seven Associates** and **Arthur D. Little**, Cambridge, Mass., for the Massachusetts Audubon Society; **The Architects Collaborative**, Cambridge, for the Thomas Glass Factory, Amberg, Germany; and **Unthank Seder Poticha**, Eugene, Ore., for semienclosed tennis courts for the Oregon State Board of Higher Education (P/A citation, 1971; article, June 1973, p 118).

Among 16 merit award winners—also the stronger statements, aesthetically—in the 1973 Red Cedar Shingle & Handsplit Shake Bureau program co-sponsored nationally by the AIA were **Rodney Wright** of Chicago, who was cited for a residence, "Hawkweed Farm," in Osseo, Wis.; **Venturi & Rauch** of Philadelphia, for the Trubek and Wislocki vacation homes on Nantucket Island, Mass. (P/A, May 1973, p. 86); and **Peter Hemingway,** Edmonton, Alberta, Canada, for the Central Pentecostal Tabernacle, Edmonton.

First awards were received by John Hackler & Company, [continued on page 22]



"Hawkweed Farm," Osseo, Wis



Art Museum of South Texas Ezra Stoller © ESTO photo (p. 22) Automobile Association, Oakland (p. 22)



Buildings on the way up





1 A hydraulically supported house under construction by students at California Polytechnic State University in San Luis Obispo will not "fall down" even if it springs a leak. So explained professor Jens Pohl whose 17-member class is responsible for design and construction of the multistory structure on part of the campus known as Poly Canyon. Dr. Pohl said the primary aim is to explore economical aspects of lightweight building materials. The house has a central sheet metal column which will be filled with water, pressurized to an internal 30 psi, and supported on a concrete pedestal. The skin of the building is plastic; the third major building material is wood. Other student experiments in the canyon include a free-form concrete mushroom house and a glass and steel bridge house. Completion is scheduled for April 26, the end of the class term.

2 Diagonally southwest of Canada's Parliament buildings—Gothic structures—in Ottawa, Ontario, is a bank-sponsored redevelopment project encompassing an entire block. On either side of the Bank of Canada, two 12-story office towers are under construction to be connected on the third side by a high-rise, glass-enclosed garden. As the major visual attraction, the garden link also will give office workers easy access to the busy shopping area along Sparks Street immediately to the south. The garden will be public and may be extended to span Sparks Street should development continue in the next block. The structural scheme of the two towers is a series of trees whose 3-ft diameter columns hold mechanical and electrical systems. Cantilevering concrete ribs provide anchors for room partitions. This "spartan" treatment by architects Marani, Rounthwaite & Dick and Arthur Erickson/Architects, both of Toronto, was intended to avoid lavish finishing. The first phase will be completed in June 1975 and the remainder two years later.

3 The RCA Corporation plans to expand its headquarters at Rockefeller Center's "Radio City" with a two-level roof garden conference center. The solid and transparent structure will be built on the 12th floor terrace of the RCA Building and will be a model for solar heating methods. Architects Ford & Earl Design Associates of New York plan partial heating in winter through collecting panels on the south; insulating glass will reduce heat transfer by 50 percent. In warmer months, natural ventilation may be achieved through operable panels. The center will contain a board room and lounge on its lower level and a dining room and small conference rooms on the upper level. Part of the terrace garden will be glass enclosed as a link with other parts of Rockefeller Center. Construction of the building will be of prefabricated, lightweight components using warehouse assembly methods.

4 To resolve divergent program requirements, the new life sciences building at Columbia University, New York, is actually two buildings in one. The larger of the two is a rectangular loft space containing laboratories and related facilities. It also serves as a connecting link with the engineering building to the north. The smaller portion is an irregular, screenlike front which visually terminates one of the campus' major walkways. In this southern section of the building are administrative offices, conference rooms, and social areas. Existing, neoclassical buildings flank either side of this entry to the Sherman Fairchild Center for the Life Sciences, designed by Mitchell/Giurgola Associates Architects of New York.

5 A series of sloping roots was designed by Rod Whatley of Teledyne Architects, Huntsville, Ala., to avoid the traditional "institutional image" of a mental health center. This feature divides farge volumes into smaller ones more human in scale while wide areas of glass on the north and south bring in the outdoors. The Huntsville-Madison County Community Mental Health Center in Huntsville contains 42,000 sq ft on three levels the incline of its site being retained by terracing. The exterior of the building is brick veneer over concrete frame. Wood decking and laminated wood beams support the terne metal roof. In addition to patient care and research, the center provides a meeting room for community activities.

6 Cutting construction time from 18 months to 4 for each office, the U.S. Postal Service has embarked on a program of factory-built branch stations. The first to go up, a 1000-sq-ft office, was erected two months ago in Paw Paw, III., just outside Chicago. It is the smallest of three basic models—the other two being 2000 and 3000 sq ft—each expandable up to double original size. Stations come in four designs: contemporary, southern, northwestern, and colonial. The four were designed by Dalton Dalton Little Newport of Cleveland, Ohio, for the U.S. Army Corps of Engineers.

2











Contemporary







Northwestern



Colonial

News report continued from page 19



Commercial and Industrial Bank, Memphis. Otto Baitz photo



Briggs home, Harbor Springs, Mich. Balthazar Korab photo



Bailey home, Long Island Sound, Conn. Julius Shulman photo New Hope Towers, Stamford, Conn.



Peoria, III., for Pierson Hills low-cost housing, Peoria; Gary L. Michael, Portland, Ore., for the home of Mr. and Mrs. Jan Zach, Elmira; Roland-Miller Associates of Santa Rosa, Calif., for the Kaye and Clarence Hall home, Sea Ranch, Calif.; Walz-MacLeod, San Francisco, for the Johnston home, Muir Beach, Calif.; and Leonard Veitzer, San Diego, for Collwood Townhouse Apartments, San Diego.

In other producers awards programs, **Philip Johnson and John Burgee, Architects,** New York, won an award for their cast-in-place concrete Art Museum of South Texas, Corpus Christi. The award was one of eight presented by the Portland Cement Association.

Other winners are Edward M. Ghezzi & Associates of Miami, Fla., for the Miami Lakes First State Bank; Wimberly, Whisend, Allison, Tong & Goo and Roehrig, Onodera & Kinder, both of Honolulu, for the Hawaiian Telephone Co. building, Honolulu; Brunner, Hoeffel, Bohrer & Associates, Minot, N.D., for Milton Young Towers, Minot; Brown, Brown & Grider, Astoria, Ore., for Albany General Hospital, Albany, Ore.; Williams & Tazewell & Associates, Norfolk, Va., for School of Arts and Letters, Old Dominion University, Norfolk; and Rossetti Associates, Detroit, Mich., for United Airlines Regional Reservation Center, Dearborn, Mich.

The Concrete Industry Board of New York gave its annual award to a joint venture, the Cadman Towers in Brooklyn Heights, N.Y., by **Glass & Glass** and **Conklin & Rossant**.

The Masonry Institute and the Northern California Chapter of the AIA jointly gave the 1972 Masonry Award of Honor to **Ratcliff, Slama & Cadwalader** of Oakland for the California State Automobile Association building, Oakland. Entries had to be structures completed in 1972 or years prior.

First prizes in two categories were presented by the Aluminum Association and the Architectural Aluminum Manufacturers Association. **R. J. Thom & Associates** of Toronto, Canada, won for Sir Sanford Fleming College in Peterborough, Ontario, in the area of new construction. The top prize in remodeling went to **Smith**, **Hinchman & Grylls** of Detroit for their own office, an old brick structure framed with glass using aluminum "spider" castings.

Among state and local awards programs which came to P/A's attention were those of Tennessee, Connecticut, New York, Detroit, and Chicago.

The Tennessee Society of Architects gave seven honor awards in a competition drawing 37 entries. The top prizes went to architects **Gassner, Nathan, Browne** of Memphis for the Commercial and Industrial Bank, Memphis, and for the Reelfoot Lake State Park Lodge (P/A, Oct. 1973, p. 64); **James A. Embry** of Gatlinburg for the Sevier County Airport Authority terminal, Sevierville, and for his mountain resort, Chalet Properties, Gatlinburg (P/A citation, 1972); **Schlott, Norman, Cain** of Nashville for Volunteer State Community College; **McCarty, Bullock, Church, Holsaple** of Knoxville for the Hamilton National Bank, Knoxville, and for its multifamily units for the Knoxville Housing Partnership, a HUD project.

Connecticut also picked seven winners from among the 50 projects submitted. In addition, an informal, public, write-in contest for the most popular building of the seven produced a winner, the Darien residence, which took top place by receiving a third of the total votes.

Honor awards were presented to **Robert L. Wilson** and **James A. Evans** of Stamford for their New Hope Towers, a [continued on page 24]



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9200 SUNSET TOWER BUILDING, Los Angeles / Architect: Chas. Luckman Associates / Plastering Contractor: Martin Brothers.



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low-to-middle income housing tower, Stamford; **Huygens & Tappe** of Boston, Mass., for the Long Island Sound residence of Mr. and Mrs. Glenn W. Bailey; **Charles H. Brewer, Jr.** of New Haven for the residence of Mr. and Mrs. Richard Lytle of Woodbridge; **Ulrich Franzen & Associates** of New York for its housing for the elderly (P/A, May 1973, p. 72) in Torrington, Conn.; **Carlin, Pozzi & Associates** of New Haven for Shepherd Glen School, Hamden; **Hirsch-Kaestle-Boos** of New Britain for the American National Red Cross Building, Farmington; and **Russell, Gibson, von Dohlen** of West Hartford for the Blessed Sacrament Church, East Hartford. The competition was sponsored by the Connecticut Society of Architects, a chapter of the AIA.

The New York Society of Architects toasted five projects three for honor awards and two for awards of merit. The honor awards were received by **Davis**, **Brody & Associates** and **Emery Roth & Sons** for the 100 William Street office building; **Castro-Blanco**, **Piscioneri & Feder** and **Gruzen & Partners** for the Arthur A. Schomberg Plaza Apartments; and **Richard Meier & Associates** for Twin Parks Northeast Housing. Merit awards went to **Mayers & Schiff** for Times Square Theatre Centre and to **Ross**, **Ryan**, **Jacquette Architectural Associates** for a playground at 100th St. and Central Park.

AlA's Detroit chapter presented six honor awards to firms competing with nearly 60 other entrants. Recipients were **Gunnar Birkerts & Associates** of Birmingham for the IBM Information Systems Center, Sterling Forest, N.Y. (P/A, Dec. 1972, p. 50); **William Kessler & Associates** of Grosse Pointe for the vacation house of Walter O. Briggs III of L'Arbre Croche, Mich.; **Rossen/Neumann Associates** of Southfield for Burton Abstract & Title Company headquarters, Troy; **Rossetti/Associates** of Detroit for Cottonwood Condominiums, Traverse City; **Eberle M. Smith Associates** of Detroit for Monguagon School, Trenton; and **Smith, Hinchman & Grylls Associates** of Detroit for S.S. Kresge Company International headquarters, Troy.

The Chicago Chapter of the AIA gave one honor award—to the firm Holabird & Root for the 4A Equipment Building of IIlinois Bell Telephone, Northbrook. Nine projects received distinguished building awards and 13 were given citations. The nine went to the Glass apartment by Stanley Tigerman & Associates, which also received an award for its St. Benedict's Abbey Church; One IBM Plaza by the Office of Mies van der Rohe and the firm C.F. Murphy; Thornton Community College by Fitch, Larocca & Carington which also won for its Lakeside Congregation for Reform Judaism edifice; Northwestern University's Communicative Disorders building by Skidmore, Owings & Merrill; a frozen food plant by A.M. Kinney Associates; and St. John Baptist Homes by Campbell & Sacsai. [more news continued on page 26]



100 William Street, New York City, Robert Gray photo



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Shopping centers threatened-city centers benefit

Cleveland architect Richard L. Bowen told a meeting of the International Council of Shopping Centers that new federal and state environmental protection laws might force the halt of suburban mall development. Bowen claimed shopping centers are the scapegoats of a 1970 clean air bill aimed at the automobile industry. He also cited examples of what he called "unnecessary environmental treatments," such as sewer moratoriums which stop construction progress already underway. One developer, he said, paid \$50,000 in sewage improvements although water runoff from his project would have been minimal.

Conversely, a national spokesman for housebuilders said present crisis conditions—notably the energy crisis—will hasten the revival of the center city. George W. DeFranceaux, chairman of the National Corporation for Housing Partnerships, told a meeting of the National Association of Home Builders that financiers will begin to weigh the factor of commuter distance between home and work in their lending decisions. He said that some experts predict multifamily housing will increase to 60 percent of all starts and that emphasis will be on convenience to public transportation.

Women in construction

"Operation Woman Power," a three-part training program, is available through the National Association of Women in Construction (NAWIC). The program begins with a basic course in construction fundamentals, proceeds to an advanced course and then offers financial aid to women seeking a bachelor's degree in architecture or engineering.

All women involved in the field of construction—whether owners or managers of firms or a secretary or stenographer may join NAWIC, which has 165 local chapters. The association emphasizes that firms whose women employees are educated in construction fundamentals stand to profit from their specialized training. Information on "Operation Woman Power" is available by writing NAWIC headquarters, 2800 W. Lancaster Ave., Fort Worth, Tex. 76107.

Homebuilders in Houston: the show must go on

The carnival-colored booths and the pant-suited hostesses were steadfastly cheerful, but the onlookers were subdued. The biggest building product show on earth, held annually in conjunction with the National Association of Homebuilders convention, was playing to a worried audience.

The demanding mood of the 75,000-member association was indicated in the preamble to the Policy Statement issued at the convention: "We have borne the brunt of mistaken directions in economic policy-making; arbitrary actions in the guise of economy and at the expense of the nation's wellbeing . . . failures to take positive, decisive actions when such actions were not only possible but imperative."

Secretary of HUD James T. Lynn, who was welcomed with cool courtesy, assured the homebuilders that the Administration recognizes they face "a host of problems." But, in response to NAHB pleas for substantial stimulants to building, Lynn offered only a ¼ percent cut in maximum FHA interest rates (8½ to 8¼) and an expansion of the Government Na-[continued on page 28]





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NA-3033

News report continued from page 26

tional Mortgage Association mortgage purchase plan to cover 200,000 units at 7% percent. NAHB officials immediately dismissed this commitment as "not much more than too little too late."

Members of key congressional committees affecting housing and mortgages urged NAHB members to support bills giving Congress greater control over Federal budget allocations. Representative Thomas L. Ashley of Ohio predicted that the Administration would accept far stronger action than Secretary Lynn was proposing, because the Administration "is now looking down the barrel of a shotgun."

Architects played a visible and constructive role at this convention. Among events presented by the AIA Housing Committee during the four days were several hours of Plan Room Workshops where builders seized the opportunity to review their plans or problems with architects. A session on Teamwork between Builder and Architect presented three architect-builder pairs describing in concrete terms what opportunities and pitfalls each architect was able to identify and what strategies he helped develop. After these illustrations, it is hard to imagine any builder in the packed hall even taking an option on land without first consulting his architect.

On the subject of national land-use policies, it is unlikely that even the remarks of AIA President Archibald Rogers, well-known for his eloquence on the subject, could have swayed the homebuilders. While acknowledging the need for rational planning and stressing its opposition to local policies that *exclude* any group of residents, the NAHB leadership insists that land-use issues should be resolved at the *lowest possible level* of government. In short, it is seeking Federal support for homebuilding, including removal of discriminatory obstacles, but wants no further interference with what is built.

Meanwhile, out in the booths, NAHB members were looking carefully at the array of products that promised to save fuel, power, or materials, eliminate repainting, or enhance security. After all, even the chief economist of NAHB, who warned of widespread unemployment and bankruptcies in the industry, foresaw an upswing by the second half of 1974 that would gain momentum in 1975. The home builder could examine the insulation—even sneak a look at the latest family-sized bathtub—and dream. [JMD]

Best designs in steel

"Design in Steel 1973," a 50-page, soft-cover brochure, is available free of charge from the American Iron & Steel Institute, 150 E. 42 St., New York, N.Y. 10017. The Institute presented 24 awards and 85 citations to buildings, objects, and works of art in its 1972–73 award program. Among the architectural winners are G.R. Summer's McCormick Place exhibition center in Chicago; I.M. Pei's Commerce Court financial cluster in downtown Toronto; and Lev Zetlin Associates' American Airlines hangars which shelter four jumbo jets.

AIA 1974 awards

The American Institute of Architects has named **Kevin Roche, John Dinkeloo & Associates** of Hamden, Conn., recipient of its 1974 Architectural Firm Award, highest honor the Institute may confer on a design office. The award is given an-[continued on page 32]





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News report continued from page 28

nually to a firm in which the continuing collaboration among individuals is the principal force in producing consistently fine architecture. Presentation of this and other awards will be made during the AIA's 106th annual convention May 19–23 in Washington, D.C.

Both Kevin Roche and John Dinkeloo were members of Eero Saarinen & Associates prior to forming their own firm. Among their buildings are the Ford Foundation headquarters in New York and the Oakland Museum in California.

The award for distinguished contributions by an individual to the profession of architecture was given to **Jack D. Train**, **FAIA**, of Metz Train Olson & Youngren, Inc., of Chicago. Train receives the Edward C. Kemper Award for his study of professional standards which led to revision of the AIA ethical code.

Elected to honorary AIA membership from outside the profession are one woman and nine men. The 10 are architecture critic Ada Louise Huxtable of New York City; R. Mayne Albright of North Carolina, legal authority on architectural practice; educator Alan Colby Green of New York City; preservationist Ernest F. Hollings, U.S. Senator from South Carolina; civic leader John B. Johnson, chairman of the Dormitory Authority of the state of New York; Fotis N. Karousatos, executive director of the Florida Association of the AIA; James W. Rouse, developer and builder of the new town, Columbia, Md.; Philip D. Stitt, editor of *Arizona Architect* magazine; Russell E. Train, administrator of the Environmental Protection Agency; and William G. Wolverton, controller of the AIA.

Olivetti & Company, business machine manufacturers, was named recipient of the AIA's Industrial Arts Medal for excellence in design—which includes appearance of its products, the language of its communications, and public and social events it supports.

The Allied Professions Medal went to **Kevin Lynch** of Cambridge, Mass., for contributions in the architecture-related fields of urban planning, research, and education. Along with John Myer, Lynch developed plans for the Boston Government Center and redevelopment of Boston's waterfront.

Medals for fine arts and crafts were awarded respectively, to sculptor **Ruth Asawa Lanier** of San Francisco, Calif. for her innovative use of materials; and to American-born **Sheila Hicks** of Paris, designer of "textile sculpture" wall hangings.

Washington report

Professionals strive to improve image

The need to somehow restore the professionals' badly tattered image is the overriding consideration for architects and engineers this year. That's not to say there aren't, or won't be, many other matters acted upon in Washington in this final and heavily political session of the 93rd Congress that will greatly affect architects and the construction industry.

But the picture of construction professionals and their practices and ethics—stemming from political scandals at state levels—keeps getting worse. It will certainly color actions at both political and administrative government levels. Professional societies—now nearly united in their efforts to restore confidence and hold onto their status—haven't been [continued on page 36]

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News report continued from page 32

able to make much visible impression on the growing acceptance of the argument that there's something very wrong with their members and the way they do business.

This increasingly publicized viewpoint was recently voiced most strongly in a Senate-floor statement by Senator William Proxmire (D. Wis.). His comments illustrate how low the professions have fallen, at least in the eyes of attention-getters. Said Proxmire:

"... the current system of A–E contracting made the sort of corruption in the [Agnew] case not only possible but likely. This system, which some of us have opposed strenuously ... virtually eliminates price competition... This is why the Congress should take another look at current law... Legislation to correct these abuses by injecting true price competition ... would not only reduce the chances of influence peddling ... it would also reassure the public that the Congress is concerned over political corruption at a time when public confidence in our political institutions is at low ebb...."

The point about the virtues of price competition is, of course, old and often advanced. The last point, about political consequences, is the key wording in a year when elections are due. In such a circumstance, lawmakers want to be aligned as closely as possible on the side of angels.

The vast array of "energy" bills Congress left unfinished when it ended its 1973 session is inextricably tied to construction—the actual energy-related work like powerplants, ports and harbors, and energy-saving work like more judicious use of heating-cooling-ventitilating equipment, and better land use. General Service Administration's recent regulations on energy-saving are a case in point. Congress also has bills before it (S. 2176 and others) to direct HUD with GSA to develop an actual model national building code for energy conservation.

There are other bills on which the professionals have already testified. One (S. 2510), would set up an "Office of Federal Procurement" which could prescribe "policies and regulations to be followed by all executive agencies"—and thus circumvent even existing law as to A-E procurement.

A growing call within the construction industry for an end to all wage-price controls is also a matter for architects' attention. The move is a complete reversal: the industry was one of the first to demand—and get—controls a couple of years ago. But contractors (who are paying as much as \$48 a ton for asphalt paving materials in some areas, for example,) now feel they are being squeezed between controls on their own operations and the relaxed controls on materials and outside labor rates. Any sudden release of controls would mean wild gyrations in cost estimates on projects that may take several years to complete.

Finally, the "pure" professionals are looking askance at what the Commerce department and the National Constructors Association hailed as a "highly successful" mission to Indonesia and Taiwan to "increase the export of U.S. engineering and ctonstruction services." What causes concern is that the 40-member NCA is composed of design-construct firms of huge size, who specialize in complete projects. Debate between these firms and A-E's who believe that the functions of design and construction should not be combined is a longstanding one. [E.E. Halmos]

Calendar

Through Mar. 17. Moshe Safdie exhibit, "For Everyone a Garden," The Jewish Museum, New York City.

Through May. Architectural models, drawings, and objects from the architecture and design collection of the Museum of Modern Art, New York City.

Mar. 16–Apr. 7. The Design Necessity Exhibit, Ohio Arts Council, Columbus.

Mar. 18–19. Architects-Engineers Public Affairs Conference, Washington, D.C.

Mar. 18–20. Lighting conference for architects, General Electric Lighting Institute, Nela Park, Cleveland, Ohio.

Mar. 18–21. Twenty-fifth annual National Plant Engineering and Maintenance Conference, Cleveland, Ohio.

Mar. 19–21. National Electrical Manufacturers Association Conference/Exposition (Electri '74), McCormick Place, Chicago. Mar. 21–22. Conference on integrated environment in building design, University of Nottingham, England.

Mar. 23–24. Workshop for architects in Gestalt principles as applied to the design process, Gestalt Institute of Cleveland, Ohio. Mar. 28–30. Spring convention and exhibit of the National Office Products Association, Los Angeles Convention Center.

Mar. 29–31. National symposium, "Women in Architecture," School of Architecture, Washington University, St. Louis, Mo. Mar. 30–Apr. 5. Annual convention of the American Concrete Institute, Sheraton-Palace Hotel, San Francisco.

Apr. 1. Deadline for entries to Hirons Prize competition for design of hypothetical Neighborhood Health Care Center. Program, sponsored by National Institute of Architectural Education and Hospitals and Health Committee of New York Chapter, AIA, is open to persons in architectural field under 35 years of age not enrolled in full-time architectural academic program.

Apr. 1–4. Design Engineering Show and concurrent American Society of Mechanical Engineers Design Engineering Conference, McCormick Place, Chicago.

Apr. 3–8. Twenty-seventh annual meeting of the Society of Architectural Historians, Marriott Hotel, New Orleans.

Apr. 19. Deadline for submission of design for LeBrun Traveling Fellowship competition, sponsored by New York Chapter AIA. Apr. 23–25. National interfaith conference on religion, architecture and the arts, Stouffer Inn, Cincinnati, Ohio.

Apr. 28–May 3. National Conference of States on Building Codes and Standards, Austin, Tex.

May 2–4. International conference on "The Professions and the Built Environment," sponsored by the Harvard Graduate School of Design, Cambridge, Mass.

May 13–17. Third South African Building Research Congress, "Research for Better Building," City Hall, Durban, Natal, S. A.

May 19–24. AIA national convention, Washington, D.C. May 20–21. Sixth International Conference on Urban Transportation, Pittsburgh, Pa.

May 26–June 1. International congress of the Federation Internationale de la Precontrainte and the Prestressed Concrete Institute, New York City.

May 26–June 14. Tour of Moroccan architecture sponsored by the Society of Architectural Historians.

May 27–30. Third biennial symposium on lower-cost housing problems, Montreal.

May 30–June 1. Fifth international conference of the Environmental Design Research Association, University of Wisconsin, Milwaukee.

[more news on page 40]

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News report continued from page 36



Fox Phoenix Theater . .



"... not a permanent job."



Richfield Building elevator panels



The last picture show

On Washington Street in the seedier part of downtown Phoenix, I recently stopped to admire the old (any building over 30 is old there) art deco Fox Phoenix Theater. While I was taking pictures, an elderly gentleman came up and asked, "Are you from the newspaper?" I said no, I just like the building and thought it was nice to find an old movie house of the 30s still operating and intact (the ticket booth had its original red velvet curtains and the marquee had only the slightest alterations). I said I especially liked this building because of its charming mixture of Spanish and Indian motifs that were so beautifully worked into the design details. The old man then said, "Yes, I've always liked it too . . . I'm the projectionist . . . came to work here 41 years ago when the theater opened. But today is the last day, you know, they're tearing it down tomorrow." Then he said, "It makes me sad to see it go ... I'll be out of a job now, and I never would have come to work here if I had known this wasn't going to be a permanent job." It makes me sad, too, both for him and Phoenix. But Phoenix isn't unlike so many other cities that seem to be hellbent on urban renewing themselves, almost with a vengence. Much of the oldest part of downtown is gone now and replaced with a particularly repellent group of massive buildings on superblocks. And the saddest part of all is that they don't seem to know or to particularly care about what they are losing in the process. [DM]

Architecture low on federal grants

The field of architecture with a \$62,000 grant was second lowest recipient of funds in the 1974–75 Artists-in-Schools Program of the National Endowment for the Arts, a federal agency. Music was the lowest, receiving three small grants totaling \$36,000. But music is strongly supported by state and local programs and therefore needs little help, relatively speaking, from the federal government.

The Artists-in-Schools Program, in its sixth year, provides for painters, sculptors, poets, dancers, musicians, and other professionals in the arts to appear in elementary and high schools throughout the country. The architecture grant was given to the Sulphur Springs Union School District, Saugus, Calif. By comparison, the area of visual arts received 42 grants totaling \$512,400. The program began with \$100,000 and has grown to \$3 million.

Art deco exposition

New York's Radio City Music Hall in Rockefeller Center looked backward last month with the largest exhibition of art deco since the 1925 Paris *Exposition des arts decoratifs* from which art deco took its name. In the show were 30s memorabilia including a 1936 Hudson Greater 8 automobile used in "The Godfather," arcade games, and juke boxes. Items for sale started at \$1 and went up to \$50,000. Bronze panels from elevator doors of Morgan, Walls and Clements' 1928 Richfield Building in Los Angeles were priced at \$500.

Radio City Music Hall itself is a tribute to 30s genius. It is the largest indoor theater in the world—seating 6200. Prominent artists created murals for its walls, among them Stuart Davis and Ezra Winter. Witold Gordon painted a white on white mural depicting "A History of Cosmetics" for the women's lounge, and Donald Deskey created a brown foiled wallpaper, "Nicotine," for the men's smoking room. The exposition was the first major project of Big Apple Events, Inc. of New York.

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Marina del Rey, less than 10 years old, has a population of 10,000 which is expected to increase during the year to 12,000. Because it is a small-craft harbor, Marina del Rey is excluded from Los Angeles Regional Planning, and county planning only recognizes it as part of a large area zones mainly industrial which includes Hughes Air-craft.

More than half its 804 acres is water. Of what remains, twothirds is roads, parking lots, office and commercial development which leaves 138 acres for housing.

At the heart of all this are 5794 boat slips, two miles of main channel, three miles of side basins and over seven miles of concrete bulkhead. All of which accounts for a floating population of 30,000.

No one expected such a smashing acceptance in 1965 when the marina was dedicated. Gruen Associates, which made a land use plan in 1960, updated it in 1965, and is at it a third time, sighs over the problem success has created. "You can't keep up with it," Ben Southland said. The County Regional Planning office admits that "growth has exceeded our ability to serve."

The marina is the most desirable rabbit warren in the county. From apartment windows, from sunny decks of restaurants, you can look out any day onto \$40 million worth of spanking clean boats in their neat slips, at billowing sails moving toward the channel and the open sea, bay sailers under 18- to 100-ft yachts, at an immense fleet of power boats.

The young take most advantage of these amenities for which they are willing to pay as much as \$450 a month for a one-bedroom apartment. They are high-wage earners, single or childless. In most homes, both husband and wife are employed. Surprisingly, a third of them work within six miles of the marina—as pilots and hostesses, aircraft engineers, and professionals with systems corporations. At Marina del Rey there is no fire station, no library. Eastwest access is limited, and the only north-south corridor is at the perimeter.

Housing consists of 18 apartment complexes with 4867 units (occupancy rate is 96 percent), 4 hotels and motels, 363 apartment units which are near completion or are now leasing, and 1000 units in early stages of construction. Awaiting approval is a 400-room, 45-apartment hotel.

The permanent population will be increased only 2000 by the 1363 new units because the pattern for the marina is one to two persons per household creating a land density of 19,200 per sq mi (excluding water). The Wilshire-Westwood density is 18,000 per sq mi.

The Department of Small Craft Harbors of the county likes to point out that the tax base is being expanded in an area which previously had insufficient tax return to cover costs of a mosquito abatement program. Private development to date runs \$144 million, the highest item being \$106 million in apartment houses, the smallest \$1.8 million in six yacht clubs.

In the beginning the marina attracted mainly boat owners but now two-thirds of the residents are boat watchers only. According to a survey, they have no desire to own one.

The success of the marina has spawned shopping centers and condominiums across Lincoln Boulevard to the east. Two-bedroom-and-den townhouses are selling for \$60,000 (pool, sauna, Regency fronts in plaster and shake, doubleheight living room)—about \$60 a sq ft. There is also a cutoff point here; the land soon runs into the domain of Howard Hughes. To the north of the marina is the Venice peninsula now overloaded with new apartment buildings right up to the marina. Venice proper has fought development—but speculators are waiting to pounce. Not far behind will be the young middle rich. [Esther McCoy]

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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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Regionalism lives

March 1974

There was an uneasy feeling among this year's P/A Awards jurors that many of the projects they viewed were not designed for any particular place. "We got the impression," said Joseph Esherick, "that, to a lot of architects, it really didn't make any difference where anything was."

In the 1960s, much attention had been given to immediate context; that was the decade of urban design, followed closely by community involvement, and P/A Award submissions strove to complement their surroundings. But this year, even that concern seems to have passed; a surprising number of entries had a no-man's-island quality reminiscent of those universal competitions that occupied architects' minds during the depression of the 1930s.

Even before the jury met, we here at P/A had been discussing the apparent decline of regional differences in recent years. The illusion of unlimited resources had—it seemed—relieved architects of the need to deal fully with climate. Some of the grosser problems could be solved with moderate attention to insulation and use of absorptive or reflective glass; few architects were motivated to try real sun control, admitting and repelling light selectively, to consider the potential of walls and roofs as thermal reservoirs, or to adjust the overall form of their buildings to climatic determinants.

During the 1950s, regional adaptation commanded a lot of interest, and a number of architects earned international respect through essentially regional approaches. There were, for instance, John Yeon and Pietro Belluschi in the Pacific Northwest, Harwell Hamilton Harris and William Wilson Wurster in California. Paul Rudolph was still working on some remarkable climate-responsive buildings in Florida, and a number of New England architects were following the earlier example of Gropius and Breuer by adopting traditional materials and proportions. Some of the buildings produced may have been merely sentimental, not based firmly enough on real climatic problems or 20th-Century lifestyles. And regional characteristics seemed applicable only to small-scaled works; it is hard to think of a high-rise office building—with the powerful exception of SOM's Tenneco Building in Houston (1963)—which makes positive gestures toward regional conditions without looking frivolous.

In any case, regionalism was soon submerged in a search for universal design determinants. Mies van der Rohe, above all, stood for the universal solution. The Miesian idiom has prevailed since the late 1950s, while other universal approaches have advanced in overlapping waves: neoclassicism, the Harem Delight School, the muscular articulation based on Kahn's teachings and Corbu's late works, the industrial-image articulation inspired by Stirling and Johansen. By the mid 60s the idea of universality was being questioned in the writings of Scully and Venturi, and the designs of Venturi and Moore. But the interest they created in the sense of place, has been slow to appear in the work of others.

There has always been a dialogue in architecture between the universal and the particular, the ideal and the pragmatic, between academic models and popular sources. And there are always cultural forces involved-the kinds of forces that spread the Gothic style as far as Sicily and Norway or extended 19th-Century neoclassicism all the way from the Baltic to the Mississippi. Right now, the preponderance of force seems to be opposing the universal; there is a mood of disillusion with the big business, the big government, and the social elite that support universal modes; there is an acute lack of the resources and energy needed to override local circumstances. On the other hand there are real cultural forces behind the impulse to revive early International Style principles and to extrapolate from the new concepts of space organization and perception as in the works of Eisenman and Graves (P/A, Mar. 1972, p. 68).

We have been increasingly aware that regionalism never really died; it has just been out of the spotlight. Responsible architecture in areas such as the Southwest, the Pacific Northwest, and the Gulf Coast simply must accommodate to local climate and local expectations. We have looked first to the Southwest, and we have found in the works of Antoine Predock and Bennie Gonzales assurance that regionalism is not only surviving, but is vigorous and innovative as well.

John Maris Difa

Antoine Predock and Bennie M. Gonzales

Regionalism: the Southwest



Predock's La Luz houses (left) and Gonzales's Hopi Cultural Center (right) update older regional styles but still recognize the value of massive walls and small or protected openings that shield against the sun and wind. Photos: left, David Morton; right, Norman Cable.

Does regionalism live? In this first part of a new series, a look at the work of Antoine Predock in New Mexico and Bennie M. Gonzales in Arizona shows it to be alive and well

Most of the last decade's buildings in the Southwest are similar to those in any other part of the country. Around Albuquerque and Phoenix, many newer buildings show no more awareness of the conditions particular to those regions than do newer buildings in any other part of the country. It is just as common, for instance, to find large, unprotected glass walls exposed directly to the sun on buildings in Phoenix as it is on buildings in Philadelphia or Detroit. No matter where you look, the environmental impact of a building was, until recently, rarely considered; it was just as simple to pump vast amounts of cold air into buildings in the summer as it was to bring in hot air in the winter. The assumption, at least in this country, was that we would always have abundant supplies of inexpensive fuel for such purposes. But we now know, whether the current energy problem turns out to be contrived, as some suggest, or real, we will probably never again know the luxury that has allowed us to be as wasteful of resources as we have been in the past.

Before the era of abundant and cheap energy supplies, there were regional styles of architecture in America, evolved out of necessity—a direct response to the climatic conditions and available materials found in a particular location. Just such an architecture gave the saltbox house to New England, and other versions brought the breezeway and veranda to the South and the adobe house to the Southwest. Although we will probably never return completely to those now often forgotten ways of building, some architects around the country are looking back at older traditions and reinterpreting them in fresh and innovative ways. Both Antoine Predock in Albuquerque, N. M. and Bennie Gonzales in Scottsdale, Ariz. are, as their works on these pages show, among that group.

Antoine Predock

Although Albuquerque, where Antoine Predock lives and works, is on a high plateau where the air is always relatively dry, there are wide seasonal variations in the temperatures; in the winter it often stays below zero for days, while 100 F or more is common in the summer. In addition, the diurnal temperatures frequently vary as much as 40 degrees between midday and night. "Consequently," Predock says, "you have to build for high as well as low temperatures, the reason the massive adobe building has traditionally been such a good solution here. The small window openings dictated by the material make the buildings really fortresses against the environment. In the summer, it takes the massive walls all day to absorb the heat, which they then gradually give off during the chilly evening. In the winter, the same walls act as a very efficient insulator against the cold." So, whenever he can, Predock likes to use adobe, as several houses in and around Albuquerque, and his well-known La Luz townhouse condominium complex show.

But, he notes, there is also a problem with adobe. Because the bricks are small in comparison to concrete block, a bricklayer must handle twice as many pieces which, on a fully unionized job, increases the cost significantly. Still, in another respect, adobe is inexpensive; Predock points out that "it is a low-energy material—it comes out of the ground, is mixed with water and dried in the sun, and you don't burn anything." Other advantages, he notes, are its superb acoustical properties and the nature of the undulations and patterned textures which many people find quite beautiful.

All of Predock's buildings are oriented to deflect the high New Mexico winds, and large glazed areas are turned away from the sun. "But in the winter," he adds, "you want sun, and if you can bounce it off a wall it really helps. I usually use solar receptors, like courtyards, that catch the winter sun but which can be protected from the summer sun."

Regionalism: the Southwest

La Luz

One solution that Predock has worked out for the sun problem is used at La Luz, a complex of close-knit adobe townhouse units in the foothills across the Rio Grande from Albuquerque. La Luz has been growing in phases over the years; by 1969, the original 18 units were completed. Ten more were completed by 1970 and, in the latest phase finished last spring, 46 new units were added to bring the total to 92. "In the mix of units," Predock says, "there are two extremes—the equivalent of a single-family suburban house with substantial private yard space, and the equivalent of the attached twostory rowhouse that has no yard at all, only an entry court." Although all of the units are attached, only the garages of the largest houses abut.

Throughout the complex, many of the 16 in. adobe walls are stuccoed white to bounce winter sun into private courtyards, but in the summer those same places are shaded by a system of permanent, horizontal wood louvers angled to prevent the sun's penetration. Sun is not the only problem, however. Albuquerque also has intense dust storms in the spring that sometimes last for weeks. "If you can imagine a big city on the most polluted day," Predock says, "where you can't see anything, that's what these violent storms are like. They sweep in from the west and southwest; the battering effect is terrible; the dust penetrates everything, so we have to protect against them, too." Fortunately, though, the sun and wind come from the same direction, so the massive adobe walls that shield the units from the sun and deflect the wind rarely have windows facing the south and west sides. Even though the large glass areas face east and are normally in the shade, the summer sun enters the interiors at times, making air conditioning necessary despite the fact that the complex is designed for inductive cooling. That's a problem, Predock says, because the views seem to be so important. This problem could have been somewhat alleviated at La Luz, if the architect's original vision of planted, adobe roofs could have been carried through. Costs prohibited that however; the roofs are now conventionally framed, with gravel surfaces, and are vulnerable to solar impact.

Throughout La Luz, garages on the rear, west sides of the houses provide another buffer; at the west and north perimeter of the site, bermed embankments and rows of trees give additional layers of protection against the elements and against the noise of the state highway beyond. To the east the entire project opens to a view across the Rio Grande Valley toward the spectacular Sandia Mountains beyond. Predock says, "it's a very fortified looking project, and it turns people off for that reason, but once they're inside a unit and see the view, they understand what it's all about."

Credits

Client: Ovenwest Corporation. Consultants: Allison Engineering, mechanical; James Innis, structural. Photos: top, David Morton; bottom, Joshua Freiwald.



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The Citadel is a 233-unit apartment complex in Albuquerque that Predock designed with associate architect Van H. Gilbert. Because it is near the University of New Mexico, there are only one-bedroom and studio apartments largely occupied by students. The entire project is built of stuccoed wood frame, and is "the cheapest one of them all," Predock says. It came out at \$16 a sq ft, including all site work (except landscaping).

Here, the response to the environment—mainly to the dust storms and sun—is seen more in the overall massing of the entire building than in the individual details evident at La Luz. "It's a big wall," Predock notes, "and inside that wall are pedestrian spaces, different sized courtyards, and walkway linkages, so the whole thing is like one gigantic courtyard. It's an inward-turned building where the pedestrian is protected by the building itself—a better solution here than one that opens peripherally and is vulnerable to the environmental impacts."

To let the greatest amount of light into the courtyard, the one- and two-story parts of the building are on the south, while the two- and three-story sections have been located on the north side. Public spaces surrounding the courtyard have been carefully organized to create a feeling of intimacy within the large complex; in many areas groups of units are clustered around smaller courtyard spaces which then open onto the larger commons area. In addition a vertical circulation system of cantilevered balconies and porches, connecting units to each other, functions as an important sun shield to the units below. This, plus the fact that most of the windows at Citadel are fairly small and the New Mexico air is guite dry, has made feasible the use of evaporative cooling in the project. "Evaporation cooling is an energy conserver," Predock says; "It's definitely one of the first things you look at when you're thinking of building in this area; it's much cheaper both in terms of initial cost and in operating cost."

While the Citadel is a predominately inward-directed building, it does have small windows on the perimeter, and even though they are protected by overhangs or balconies, they point up a contradiction Predock is quick to note. "You know you have to seal things in," he says, "but there are also these compelling views, so obviously everything can't look toward the center."







The exterior (above) of The Citadel forms a wall to protect the inner courtyard, balconies, pool, and pedestrian spaces from the harsh elements.

Credits

Client: Roger Cox, Albuquerque, N.M. **Consultants:** Allison Engineering, mechanical; Randy Holt Associates, structural; Don Fowler, electrical.

Photos: facing page top and right, Antoine Predock, left, David Morton; above Joshua Freiwald.

Kaminsky house







Like so many of Predock's projects, the Kaminsky house is also oriented directly to the east, away from the sun and wind. It is not far from La Luz, but it is sited further down in the foothills where it has a commanding view of both the Rio Grande River and the Sandia Mountains across the valley. The stuccoed wood frame house for a family of four is snugly nestled into a depression in the land, descending the hillside and following the natural contours of the site. The house is almost completely blank on the south and southwest sides, except for a couple of very small, slit windows designed for the family to enjoy the often spectacular western sunsets.

"You drive up to this house," Predock says, "and you wonder why it has almost no windows, but then you walk in and you have the view of the whole valley and mountains right in front of you—180 degrees of it." The splayed walls certainly help to enhance the view, but their real purpose, Predock notes, is to deflect the wind around the building to protect the second- and third-level outdoor decks and the land below that will eventually be developed as gardens and outdoor living areas. As the house descends the hill, lower levels are added so that what appears from the street to be a one-story structure actually ends as a three-story house where all the



Splayed walls of Kaminsky house direct wind around front garden and double as huge screens to protect decks and large windows that overlook Rio Grande.

living areas are stacked in a vertical plane. "I wanted all the living spaces to have views," Predock explains, "that's why they're all crowded up to the front—kids bedrooms, the master bedroom, the loft study, living and dining room; all jammed right up on the front line."

Even with the splayed walls and such careful siting, the high, glazed wall on the east façade is vulnerable to low summer sun angles, which Predock admits is a problem, but both he and the owners think the views compensate for it. Nevertheless, it has been additionally compensated for by designing the house, like those at La Luz, for inductive cooling patterns. "By carefully balancing the way you open doors and windows," he notes, "you can have a built-in, automatic cooling system. It doesn't completely cancel out the heat—you need air conditioning for that—but it's a step in the right direction. It's also," he adds, "a matter of personal standards." We may all have to think about changing those in the future.

Credits

Client: Dr. Neil Kaminsky.

Consultants: Allison Engineering, mechanical; Robert Krause, structural. **Photos:** facing page, David Morton; above, Joshua Freiwald.

Regionalism: the Southwest

Sandia Plaza Branch Bank

Sandia Plaza Bank turns its back to sun and wind to protect the front courtyard. View of mountain is enhanced by row of trees, berm, and court wall that hide highway view.



Sandia Plaza bank is on a flat site next to a shopping center, along a commercial strip in Albuquerque. The entire structure is exposed concrete; walls are cast in place and sandblasted, and the roof is constructed of post-tensioned waffle slabs. Terracotta paving tiles cover the roof, floors, and exterior courtyard.

This new bank, designed with associates Stanley G. Moore and Van H. Gilbert, called for emphasizing the consultative aspect of banking. In this growing suburban section of the city, the bank wanted its customers to feel they weren't just going into a check-cashing mill, but that they were going into a special environment where they could discuss and work out their financial problems. In addition, the building was to be an oasis in the strip environment. These conditions led to Predock's overall approach to the bank, its siting, and the way it works.

Of all of his buildings, this one probably reflects the most direct responses to environmental conditions. The facility is heavily protected from the south and west, where only one recessed window and door penetrate the solid sides. Shaped like a four-sided pyramid, the bank incorporates a section which has been carved out for the front courtyard. Behind the courtyard, the glazed solar-bronze main façade is deeply recessed under the roof to protect it from the sun and wind forces, which are deflected over the courtyard by the angled pitch of the roof. In addition to the natural forces, the architect also had to consider the problem of the commercial strip. There is a wall around the building, which, the architect notes, "means you can't walk around the building and peer into it without sort of going inside it . . . you're drawn into a contained environment, into the court that makes another world in the context of the strip environment . . . it's a transitional devise, a deceleration before going into the building." Beyond the court, a row of trees and a bermed embankment shield the building from the noise and view of the street, but stop short so that the view of the mountains will not be obscured. Inside, the consulting area is on a raised platform that both designates the space as a special area and gives it a better view of the mountains. At the opposite end of the building, a multi-use community meeting hall adjoins the banking area.

Credits

Client: First National Bank in Albuquerque. Consultants: Allison Engineering, mechanical; Robert Krause, structural; Don Fowler, electrical. Photos: Joshua Freiwald.







Regionalism: the Southwest

Bennie M. Gonzalez

Bennie Gonzales lives and works in Scottsdale, Ariz. only 12 miles from downtown Phoenix. The area, known as the Salt River Valley, traditionally has been where people go for their health—Elizabeth Arden's famous Main Chance health spa is nearby. But the health-giving image of the valley may now be changing. Although winters are very mild, 100 degree temperatures, even throughout the night, are not uncommon in the summer. Coupled with the intense heat, extensive manmade irrigation canals have now affected the once arid microclimate of the region, and air inversions can now hold humid, polluted air in the valley, no longer cancelable by traditional means of building.

"But our biggest problem," Gonzales says, "has been with planners-they've been very shortsighted. Most of the places here are completely auto oriented; if you want to go shopping you have to hop into a car, and the problem is that the distances are very great. The planners look at land as something you build houses on with back yards, but they never think of commercial facilities or other amenities. They set aside one huge area, like downtown Scottsdale, for a commercial center, and consequently everyone has to drive miles and miles every day. The real problem is that we've avoided a concentration of people, and land prices are so high in the commercial centers that nobody could possibly live there. And now, with the gas shortage, things won't have to become much worse for this city to virtually die . . . it simply can't exist without the auto." Gonzales believes, though, that this recent problem ultimately will benefit the valley because it will force people to think seriously about higher densities.

In his own office, Gonzales is well into the planning stages of two highly concentrated residential communities—Alamos in Scottsdale and Pinnacle Peak—that will be predominantly oriented to the pedestrian. "That's my direction," he says; "I'd like to create villages where people can walk. In downtown Scottsdale there are places where you can't walk at all people have completely ignored the pedestrian, they forget we have legs."

When Gonzales works with the individual building, he is one of the few architects in the valley who continues to express an awareness of the older, traditional methods of building. Even if these older means can no longer combat the environmental problems as efficiently as they did when those problems were less severe, they still offer some help that Gonzales thinks any architect should consider when building in the valley region. Although the building code of Arizona no longer allows the use of adobe brick in construction, his city hall and library, completed in 1971 as the first phase of the new Scottsdale Civic Center complex, show the massive masonry walls and small, deeply set windows that recall earlier building traditions. In many of his other buildings, Gonzales has made extensive use of balconies and overhangs, along with many types of louvers and shade trees to reduce the sun's impact.





For Bennie Gonzales in Scottsdale, Arizona, the biggest problem is urban sprawl. His earlier Scottsdale Civic Center (below) and proposed Pinnacle Peak and Alamos in Scottsdale villages (above) counter that trend.





Regionalism: the Southwest

Scottsdale Center for the Arts

ATRIUM ATRIUM

A new addition to the civic center, the Scottsdale Center for the Arts employs a roof of huge louvers to protect from sun. A

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The Scottsdale Center for the Arts will be the newest addition to the civic center when it opens in the spring of 1975. The building will house a 750-seat theater and a 200-seat cinema, along with art exhibition spaces and some new, much-needed city offices. One of Gonzales's most important design considerations was that the facilities become a complex that the community could actually use. "Too often," he remarks, "these cultural centers every city seems to be building end by not being used to their fullest potential; they're often too big and complicated, and consequently much too expensive for use by the local, small groups they were designed for."

Partitions surrounding the theater can be opened to the 9000-sq-ft atrium, increasing the audience capacity if necessary; at other times; it can retain its smaller scale. "This kind of flexibility is important to Scottsdale," the architect explains, "because it allows operas, repertoire, musical and dance presentations to be programmed as well as the more intimate chamber music or small group presentations."

The low, massive, mortar-washed masonry walls of the building recall the aesthetic of the earlier city hall and library.

But while those are essentially monolithic, self-contained structures, here everything turns inward to the high, lightfilled atrium that is protected from the sun's direct rays by a system of large louvered panels across the roof of the building. The concept of the shaded atrium is an old one, but one that Gonzales finds especially appropriate in this part of the West where so many of the earlier building traditions derive both from the Indians and from the Spanish who later settled in the area. "I want a western feel in my buildings," Gonzales says, "but not one that is cowboy western; I try for one that is elegant and simple like the older buildings, one that exemplifies the regional qualities of the climate and heritage of this part of the country."

Credits

Client: city of Scottsdale, Ariz. **Consultants:** Meier/Bruington & Assocs., Inc., electrical; Timmerman Engineering Company, mechanical; Caruso Park & Assocs., structural; Christopher Jaffe, staging and theater. **Photos:** Michael Kirkland


The Hopi Cultural Center is on the only Hopi reservation in the country, high on northern Arizona's Second Mesa in Oraibi, the oldest continually inhabited city in the United States. The Hopi are known to be a very friendly group, but they have never gone out of their way to encourage tourists to trek around their pueblos. They still don't allow outsiders to take photographs, but because their villages are among the most beautiful to be found anywhere, people want to see them. With this in mind, the Hopi Tribal Council decided a few years ago to provide some facilities for the visitors. "The idea," as Norman Cable of Gonzales's office explains, "was to give visitors, as close as we could, some of the character of actually living the Hopi way of life in the pueblos, of being right out there on the edge of the mesa."

But that was not the sole motive for the new, 32-room guest accommodations. The 6000 Hopi remaining on the reservation also work in crafts, and the need for an outlet for these

artifacts of weaving, pottery, and silver-the need to increase their income-was the primary motivation behind the center. Most of the guestrooms, the craft shops, restaurant, and museum surround a large, flat open court where ceremonial dances are sometimes performed. The ring-shaped configuration of the stark, elegantly simple complex protects the inner courtyard from the high winds of the mesa and helps to make the outdoor spaces usable for longer periods of the spring and fall. A very limited budget dictated the use of simple materials; stuccoed concrete block walls, concrete slab floors, and frame roof were used efficiently to stay within the budget of \$15 a sq ft. Many of the guestroom units are constructed to carry additional rooms on top, and the stairs that have already been installed provide access to the rooftops which, in the interim, serve nicely as elevated, outdoor terraces where guests can now enjoy the spectacular views across the wide, flat mesa.





High on a windy mesa in northern Arizona, connected buildings of the Hopi Cultural Center form a continuous wall around protected, inner courtyard.

Credits Client: Hopi Tribal Council, Oraibi, Ariz Photos: Norman Cable



Gonzales's own home is a 40-year-old mission-styled adobe structure a few miles from downtown Scottsdale, within walking distance to his office. The house remodeling, he explains, shares some characteristics common to all of his work. "What I was trying to achieve," he says, "could best be called the simplicity factor." The house was typical of those built in the region during the 30s, but to Gonzales it was too elaborate, both in form and in detail; he felt it lacked the directness and simplicity of form that had traditionally been the most appealing characteristic of the regional architecture. "The windows," he explains, "were all different sizes, some of the details inside were nice, but there were too many of them, and the arched front porch, the small porch above it, and the red Spanish tile roof complicated things further."

"Drawings were never made for the renovation," Gonzales says; "I had worked with the contractor before and he knew how I operated so we just drew lines directly on the ground to indicate the new additions." With this method, a dressing room and bath were added to the master bedroom, part of the rear patio was enclosed for additional living room space, a larger garage was built and the old garage was turned into a guest house. The arches of the front porch were squared,



and the openings were enclosed with large windows to turn the useless old porch into a kind of greenhouse loggia that serves as a passageway from the front door directly to the study. The small upstairs porch was enclosed to become a bedroom reading room and, throughout the house, mouldings and other details were removed from the interior, which was then painted all white.

To simplify the overall expression of the house, all windows and doors were standardized by using ordinary, off-the-shelf catalog parts, and the entire house, including the red tile roof, was painted sage green to blend with the vegetation surrounding it. Finally, the whole complex was tied together by 8ft-high walls of concrete block—the same material used for all of the new additions—giving added privacy and reducing noise from the busy, suburban street on two sides of the site.

Credits

Client: Bennie M. Gonzales.

Consultants: Bill Robinett, mechanical; Meier/Bruington, electrical. **Photos:** facing page top, Neil Koppes; bottom, David Morton; above, Wayne Thom; right, Neil Koppes.







For his own home, Gonzales renovated a 40-year-old adobe structure (above left) that came equipped with kidney-shaped pool (far left). New additions and a wall around the whole complex simply followed lines drawn on ground.



Pepsi canning plant, Sapporo, Japan

Form follows conflict



Exterior photos (above) show the skeletal structure against the sky at various times during the day. On the site plan (below) the first phase of the plant is the circle on the right. Future additions including a laboratory, auditorium, and museum are the other three circles to the left.



The Pepsi canning plant, with its glass and steel truss structure, is a statement by the architect of his attitude toward the process of production and consumption

Until the completion of the first phase of the new Pepsi canning plant in Sapporo, Japan, by architect Minoru Takeyama, the client's reaction had been that it was "too much against Pepsi tradition." The building, the first of a three-phase program, is a lightweight, steel-frame structure, containing two production lines. Totally enclosed in glass, the facility gains a transparency and moiré effect created by the structural elements—an attempt to naturalize the mega-volume.

Functional demands of the plant were determined by previously established canning and production processes. The building is a one-story, three-quarter circle with a steeply pitched roof to lessen snow loads which can be a problem, with snow accumulations as high as 5 or 6 ft. In the remaining one-quarter of the circle is the loading dock for servicing the production lines. Inserted into the volume above the production line is a mezzanine level for exhibitions, meetings, movies, and other public uses. Future additions to the plant include an auditorium, a museum, and a laboratory.

The architect sees his role, as determining the environmental character of the building the process of production having already been established. In designing the canning facility, the architect describes his solution as "an irrational space to afford the rational, mechanical efficiency which is to produce, somehow, an irrational product."

Therein lies the conflict which the architect termed the "mythological context of space [form] follows function." While technology and its products may feed us, clothe us, and give us shelter," we've still got a lot to live," and while "Pepsi's got a lot to give," it just doesn't take care of the spirit, feels the architect.

This seems on the whole to be a rather lengthy explanation by the architect of why he designed a structure that exists as a visual experience apart from its functional parameters. But in fact, functional determinants often override or, at least, become the point of rationalization for the forms that house them. The conflict, perhaps, has more to do with the Japanese Gross National Product, than it does with the American invention of Pepsi or the mythological relationship between form and function. [Sharon Lee Ryder]



A.S.BITTO

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Data

Project: Pepsi canning plant. Architects: Minoru Takeyama and the United Actions. Program: two production lines for canning facilities as well as space for exhibitions, meetings, movies, and other uses by the public. Site: low density, rural countryside in Sapporo, Japan. Structural system: low cost, lightweight steel framing trusses. Mechanical system: forced air heating with panel radiator in large working area. Major materials: steel trusses, glass, and concrete.

Consultants: Osaka Electric and Heating Utility, mechanical; Orimoto, Takumi, structural.

Costs: \$27 per sq ft. Photography: Mitsumasa Fujitsuka.



PEPSI LAND"

SYRUP ROOM

BRIDGE

Binghamton science complex

Buildings that believe in science

Robert Jensen

Skillful handling of a science complex in Binghamton, N.Y. expresses society's concept of the goals of technology amid questions about values generated by those standards

By most standards, these science buildings for the State University of New York at Binghamton, by Davis, Brody & Associates, display considerable finesse; even minor events, transitions between materials and surfaces are precisely detailed. More broadly, there is a sense of control over proportions, rhythms, and changes in plane that speaks of the architects' ability to accurately translate intentions and intuitive perceptions into forms. The architecture can be criticized with relative assurance that it "says" what the architect intended, and this is an unusual pleasure.

Recognizing this evident skillfulness, it is appropriate to criticize the buildings for the problems they seem to repre-

Structural bays are clearly expressed on the exterior, circulation and mechanical (narrow bays) are open-ended, and provide for easy expansion.

sent. Indicative of the problems is a comment made by a student working in one of the biology classrooms: "These buildings look kind of scientific to me and the equipment here is great. I don't see any fun in them, though, and I get nervous looking at them on the hill every morning. It's like a factory."

If such a comment is representative or even relatable as criticism, then several arguable premises must be maintained: that, stylistically, buildings act as mirrors and symbols of certain cultural assumptions either universally or partially held; that a competent building can be analyzed as a formal metaphor for the assumptions represented, thus illuminating them; that this is part of what we mean in describing architecture as partly an art; and that finally, to be powerful art, the building will tell us something—provide a kind of feeling—about our hopes as individuals, about our true (and shared) aspirations.

This science complex—a biology building, a psychology building, and a library serving all sciences at the university—is

not only for the work of science, but is representative of our cultural belief *in* science. The buildings are representative of science as laymen know it, as a kind of basis for our idea of society, and the forms have been seen before. So I will not belabor their description, except to point out that undecorated pure solids, materials and surfaces subdivided into them, structure expressed concretely or metaphorically, the whole divided into its constituent parts and parts of parts, revealing them so that the whole can acquire meaning, intelligibility only through these parts more than in itself—that such a style is historically an expression of science in its applied technology, its rationality, as an image to the layman, and as such is an artistic idealization.

Author: Robert Jensen is an architect, critic, and architectural journalist, currently working on a book in which he analyzes recent architectural trends.



Buildings that believe in science

That their forms are a traditional articulation is not an embarrassment, here, to Davis, Brody. These are supposed to be "no-nonsense buildings," an expression of science, and they are. But that very expression is the problem, as it continues to imply a much broader cultural idealization of science and its technology which may no longer exist. If the idealization was once a revolutionary hope which the first modern architects translated into forms five decades ago, technology may not seem so hopeful today. Science and its techniques are more and more being connected with disastrous consequences in the last Century by "average" individuals, not just by a minority of critics, artists, or intellectuals. A growing spectrum of society feels that science's technical progress and methods are a source by which that society is being manipulated against its best instincts. There is no space here to press this argument: it must simply be asserted that the technical zeitgeist of which these Davis, Brody buildings are a clear expression is questionable. But it is not collapsing: rather it is becoming all-powerful, instrumentalized, and applied everywhere, debilitating our own "human" nature, not to mention the nature around us.

From needs to product

In their search for meaningful expressions or tools within this simultaneous deterioration and expansion, modern architects can become almost, but not quite, helpless. The Binghamton science complex was designed using procedures abstracted from science as a tool, and although these procedures were of little help in making these buildings more than what they became, the procedures led to some practical successes. One cannot reject the fundamental serviceability of science and its procedures—only the way they tend to be applied, and in these buildings, idealized.

Elaborated in three thick reports to the New York State University Construction Fund (their client), Davis, Brody's design method (*Architectural Record*, Aug. 1968) was an attempt to quantify and thus reveal much of what is intuitive about architectural design, as in their "Problem Solving Structure."

It is meant to describe what is essential and identifiable in structuring the solution to any design problem, at any scale, and they applied this problem solving structure to the design of the science complex. The *needs* of the users were identified, and a *product*—architectural proposals—was created. One list of "significant user categories" was decided upon as "most useful": *student/faculty*, which included instructors, learners, experimentors; *supporting personnel*, which included administrative, library, maintenance/service; and *other*, including visitors, handicapped, etc.

They did not rely on the quantification of data and procedure to miraculously generate a perfect building for them. Rather, they assumed it could not. Sketches of plans, room arrangements, and massing studies were made and rejected in the usual way, intuitively, artistically (but with their problem solving structure as a framework for design), and finally honed down to three alternatives of plan, and three of section, that seemed to work. These formal (as opposed to verbal) alternatives were then screened against the site, circulation, and user-needs studies made earlier, to see which worked best. After recombining and reworking, one formal solution was carried through design development and working drawings to the buildings we see.

Now, imbedded in objectification or quantification-call it what you will-are the assumptions of value-free neutrality. However useful to the study of materials or facts, the quantification here of human needs as user needs tends to turn humans into objects. For instance, Davis, Brody's user-need statements are framed: a "user"-in the eight one-word categories of distinction used in the process-"should be able to" do something-stated in operative categories of action like "walk," "drop off," "circulate," "reach," "park," "identify." But even words like "teacher" or "student" are saturated with value, ambiguity, subtle differences, and large contradictions in their meaning, just as "reach" or "identify" carry value-goals as personal actions. Treating such words as mere operations in isolation, as formula in a ritualized screening, reduces or shatters their connection with real people. This kind of objective procedure is a trick played by architects on themselves, in a rush to imitate science. It is irrational; one instance of that debilitation of human nature mentioned earlier as a general occurrence. Existing as it does in a context in which science has taken "rational" to mean itself alone, architects must fight this equation, not fall into it. Imaginative speculations and intuitions (crucial to design) cannot be reduced to mere vestiges in a search for their "object-hood" which does not exist. Thus Davis, Brody was correct to retain that vestige of intuition as they did, and even bold to do it, in the face of the profession's absorption with "architecture machine" computer thinking, systems analysis, and value engineering (and when confronted with a commission that seemed a perfect application for them all).

Flexibility within a framework

Still, Davis, Brody has shown what is meant by architectural design usefully borrowing from scientific procedure. An extensive but simply statable goal, its value broadly agreed upon, was quite inventively achieved in these buildings. The architects and the client wanted a common organization of classrooms, offices, and laboratories that could encompass any science department at Binghamton flexibly, economically, without expensive rehabilitation if a physics department expanded, or if biology was moved. It is a complex but specific problem; priorities in standard room patterns, table design, service, material, and amenity requirements must be questioned, and given a hierarchy. The requirement of laboratory services and mechanical equipment was established as the one necessity that seemed to have the most pervasive relationship to all others. Thus a 12-ft-wide center mechanical bay was established, carrying all laboratory services for table experiments-hot and cold water, de-ionized water, pressurized air, gas, and steam-and the main heating, ventilating and air conditioning systems operated by fan and pump rooms on the roof. These services are located horizontally at the top floor of the mechanical bay, and drop vertically every 22 ft to the laboratories below. Their accessibility and centrality, combined with Davis, Brody's custom laboratory table, sink, and counter designs, establish the science complex's flexibility. Around these central services, other program needs were met. They are of no less importance per se, but of











PARTIAL ELEVATION



2-0°

20'-0"

9'-4"

SERVICE RACK

AIR/GAS 120V DUPLEX COLD WATER 208V 20A 120V 20A 120V 20A COLD WATER 120V DUPLEX AIR/GAS 120V DUPLEX COLD WATER

Buildings that believe in science

less pervasive importance. Corridors run on both sides of the core, labs inside thus being divisible into small spaces with little loss of private accessibility. Classrooms, offices, and seminar spaces are placed on the outside of the corridors as needed and, within the limits of the structural organization (never violated), where needed. The corridors provide broad vistas of the outside in locations where classrooms and offices were not required.

One senses that this spatial organization will be found (after experience) to encompass directly the work of science inside it, and meet flexibly the unclear future expansion needs (contraction perhaps never being considered) of science education at Binghamton. In this sense, the architects' structuring of intuitive judgment brought to their work logical thinking and spatial translation as a service. But that function/ structure should necessarily be extended to the images and artistry of the building does not necessarily follow. It is a choice. The organizational principles could be shaped in uncountable ways. And we know by now that materials and detailing are relatively independent, each with potential to carry meanings of its own.

Therefore some conclusions might be offered: The premise of this criticism disputes imbedded and active cultural assumptions relating to, and pervasive in, applied science, not to mention economic, corporate, and industrial practice. At Binghamton, the architects never imagined that they might need to question a formal vocabulary that is itself imbedded in the above. Thus the buildings are successful in every way in





Bridges shown in earlier sketches (below) were deleted, as were court landscaping plans, for budget reasons. The science library facilities, the upper building on the drawing below (and opposite page, top), are designed within lab bay size limits, allowing future space reassignment.

Data

Project: Science complex, State University of New York, Binghamton. Architects: Davis, Brody & Associates; associate, Jack Lebduska; project architect, Theodore F. Schultz.

Program: design a complex to contain all science education facilities, including a science library, with provisions for future expansion. Site: hilly section of campus, adjacent to existing college buildings. Structural system: reinforced concrete foundations, columns, beams, and slabs.

Mechanical system: high temperature hot water from central campus plant; corridors and lobbies, fin tube radiation; labs, ducted air.

Major materials: exterior, expressed concrete frame with glass or masonry infill panels; interior, exposed concrete, masonry and gypsum board walls, vinyl tile and carpeted floors except various special flooring for specific lab types.

Consultants: structural, Wiesenfeld & Leon; mechanical, Cosentini Associates; landscape, Currier, Anderson & Geda; laboratory consultant, Wilfred Worland; interiors, Cynthia Peterson (D,B&A) and Rosanne Gordon.

Costs: base contract (incl. landscaping), \$12,046,600; equipment, \$1,368,440; ground floor of psychology building (separate contract), \$497,600.

Photographs: Robert Gray.

which the profession has come to define success: successful with the client, successful as a representation of the work inside them, and as an erudite example of modern architecture. Yet, they have not succeeded in expressing individual hopes and dreams, that sense of our aspirations, which in the beginning was cited as perhaps the higher achievement (and which modern architecture once claimed for itself). Indeed, that kind of achievement will seem nearly impossible when, more and more, what is affirmable about present society is found to be tentative, or above all (for architecture) found to be uninstitutionalized. Buildings are mostly about culture as instituted, and so will be able to show aspirations outside that—while continuing to serve as they must—only in the most poignant and seemingly unresolved ways.





Profile: Hoffmann/Saur and Associates

Candide in St. Louis

Seeking a personal style of practice, this young firm found some very instructive clients. Its work reveals client input: sensitive, articulate and at ease with complexity

Is there an architecture of innocence? Voltaire, who thrust poor Candide into an irrational world with only man's frail logic to guide him, might have smiled upon a similar drama unfolding in present day St. Louis, Mo. Here, in 1967 two relatively young and inexperienced architects, David Hoffmann and Louis Saur, established a practice that sought to design and produce architecture by means more responsive to the needs of clients than traditional procedures allowed. From the outset they met and subdued the almost menacing demons which engulf the traditional office today: demanding programs from more sophisticated clients, industrialized building systems, rising costs, and tight construction sched-





Candide in St. Louis

ules. A survey of the firm's first seven years suggests that it is fulfilling its destiny. Hoffmann/Saur and Associates had rendered architectural, planning, and management services which are impressive for their intelligence, simplicity, thoroughness, and innovation.

Beyond founding a successful practice, the firm has taken a significant further step—it has quietly extended the frontiers of traditional practice by nurturing for its clients a creative role in the design process. To judge from numerous projects resulting from this collaboration, clients can be capable and enthusiastic participants. It was the clients, in program development discussions with H/S&A, who created appropriate new institutional forms, the raw material for innovation.

Such profound concern for clients conjures images of an

office analytic couch and at least one computer terminal, but the studios of H/S&A are surprisingly relaxed, informal, and congenial. An inconspicuous undercurrent of conversation threads its way through the administration, design, and production areas of this 36-member staff. For H/S&A continues to be givers of architectural form. Under the guidance of partners Hoffmann and Saur, executive vice president Joseph Shepard, and vice presidents and associates Anthony De-Michele and Peter Ohlhausen, the firm has produced buildings like the award-winning Parkway North Senior High School, Chesterfield, Mo. (P/A, July 1973, p. 96), which consistently reflect the architects' joy of putting things together.

Underpinning the design is a disciplined approach to program development which traces back to the first major client,



Cottonwood Station Mall was intended to be an ambitious 500,000-sq-ft shopping center in a rural setting. The interface between mall and neighborhood purposefully echoes the small scale and low density of the neighborhood while opening volumes of space inside.

Architecture "fills in" an existing site: Clayton High School (left), an addition and remodeling, redeems a neglected courtyard, adds 15,000 sq ft, and converts first and second floors to open plan. Glenridge Elementary School makes a generous gesture to the residential setting by means of a terraced neighborhood park. Ferguson Florissant School District, Ferguson, Mo. and its superintendent, Dr. Warren M. Brown. Unable to find established architects who could create an elementary school embodying his progressive educational methods, Dr. Brown invited H/S&A to join him in an exploration of form in 1967.

The school board was nearly overwhelmed by the energies it released. (One member assured the architects that ''You don't have to go this far to give us a building.'') Retaining the services of a respected educator, Dr. Homer Johnson, Chairman of the Dept. of Education, State University of Utah, H/S&A was able to probe the structure of an entire school system and to distinguish the numerous voices of administrators, teachers, staff, students, and parents.

To begin, H/S&A examined the overall structure of the sys-

tem and resolved it into planning teams, each characterized by special concerns not necessarily shared by the others. H/S&A then established rapport with the administrators, the ultimate decision makers who delineated basic goals and constraints. Working downward, the firm developed the outlines of a program by essentially asking all parties concerned what they were doing and why, distilling, comparing, and accommodating the replies. H/S&A calls this reaching "levels of understanding."

Why *do* you part your hair? Under patient questioning, the school system found it had been indulging in countless rituals whose reasons were long forgotten. This restoration of sight awakened an appetite for new colors and forms; the client's insights into the educational process resulted in a program



Candide in St. Louis

granting H/S&A the needed freedom to generate form.

Naturally, a program document is no more than the best of intentions. H/S&A clothed the program verbiage in bubble diagrams, the architect's ideography, and led the client across this conceptual bridge towards the preparation of several alternative abstract schemes. "We were all naive together," notes Louis Saur. Two seemingly contradictory spatial hierarchies arose, one requiring traditional compartmentalization and controls, the other a more loosely defined cluster with few hard edges.

The two hierarchies were drawn as discrete but symbiotic organisms. Then, having the support of Dr. Brown and the school board, H/S&A entered what it calls the "hard area," creating a building system to deal comprehensively with inter-

physically and psychologically locating people where they are most effective



educational scenarios



neighborhood concept



The bubble diagrams of H/S&A are of inexhaustible variety, and reflect the firm's concern with the multitude of social, environmental, political, and economic functions each client represents. With mastery of the relationships comes "freedom to design."

resource + medium + method = goal



nal and external structures and architectural skin. Though H/S&A does not always specify a manufacturer's systems package in applying the systems approach, it does insist on assembling a well-integrated elementary unit—a growth cell containing structure, walls, floors, ceilings, skin, partitions, and the mechanical package—which can generate the entire building. The advantages of this basic simplicity to clients and constructors are obvious. "Besides," says Saur, "we believe a good building or town plan can be broken into its parts. Good design should fit well. The Italian medieval hill town is an excellent example of the systems attitude."

The building was readily translated from design sketches to working drawings, and the Graham Elementary School opened in the fall of 1969. H/S&A has strong feelings about these "final touches" of the building process, architectural production (especially fast-track), interior design, construction management, and feedback. "It's not necessary to go all the way with a project," Saur explains. "But the architect must be aware of and involved in its totality."

For H/S&A, total involvement signifies greater control over the building's details, specifications, costs, timetables, and final appearance. Paradoxically, this reintroduces the architect as the master builder. The firm has asserted its competence in the "final touches" and finds the experience rewarding. "Architecture is as much oriented towards process as it is towards goals," Saur feels. "We find that no one can control all the facets of the building process. With the dissipation of the outer edges of our social roles, we experience higher degrees of cross-fertilization with other disciplines. Architects are no longer simply the givers of form. We are ultimately responsible as project managers. Why architects? The core of the building process is still design. And design is our strength."

Fast-track has been found to be a good analytic tool; its fixation of "certain hard factors" followed by "filling in" agrees with the firm's preference for systems. Construction management has augmented the architect's control of time and cost while providing additional revenues. But it is in interior design and feedback that H/S&A has found room to innovate. By requiring manufacturers to bid on a single contract to furnish the entire interior of the Parkway North school, H/S&A obtained a handsome and highly compatible ensemble of furniture and vital software from the winning manufacturer, including instructions, inspections, and service. And where angels and architects seldom tread, H/S&A has convinced its clients that formal contractual provisions for follow-through programs make practical and financial sense.

50 organizational charts

Students of process that they are, H/S&A's organizational structure is as well defined as Piranesi's spaces—or its own interiors for Parkway North. Although it carries the usual titles of associate, project designer, and production manager, the staff forms whatever ad hoc groups of abilities and talents are needed to accomplish the work at hand. "I drew some 50 organizational charts and threw them away," Saur recalls. H/S&A sees its members primarily as individuals whose talent, knowledge, personality, and sheer physical drive determine what they can contribute. "Motivation in a nucleus of 10

to 12 people is the key to a good practice," he continues. "I'm getting over the philosophy of bigger is better."

Visitors to the H/S&A office are thus treated to a rare sight, that of recently graduated architects entrusted with some of the responsibilities often reserved in traditional offices for more experienced practitioners. H/S&A believes that with proper supervision in a diversified team, an individual can immediately begin to exercise his talents and interests, even as his level of knowledge rises. "An office should be a teaching as well as a learning place," says Saur. To reinforce the architectural services it offers, H/S&A retains the services of some of the best consultants in their fields, such as Bolt, Beranek & Newman in acoustics and LeMessurier Associates in structural engineering.

It appears the team concept is working well. Though the firm is quite young, a maturing command of visual form



H/S&A faces the nation's uncertain economy with a cautious optimism anchored in the knowledge that it offers more than the traditional array of architectural services. The staff is presently at its greatest strength, and partners Hoffmann and Saur feel ready for larger projects from corporate and institutional clients.



The Life Sciences Building for Washington U. tucks a greenhouse into a bank of other facilities (above). Space planning studies for Kettering Hospital yields two double rooms or four singles, reducing linear feet of nurse station per patient room.







Parkway South, Chesterfield, Mo. is a "community mall" for both academic and neighborhood use. On the 100-acre site are 40 acres of nature study, an elementary school, and a senior high school shown here. H/S&A provided master planning, environmental impact studies, and design of the senior high school.





Demun Elementary School, Clayton, Mo. clusters learning areas around service core and instructional materials center. H/S&A strongly identifies Demun with its milieu via low profile, spacious views of the surroundings and the cafeteria, which invites community observation. Workmanship in Demun is of highest standards.



Saur suspects that architects will find much of their work for years to come in the nation's older cities and towns. "The city was long considered evil," he notes, "but because of the energy crisis and the economy, it offers one of the more feasible opportunities to build today. The emphasis will be on the development of the neighborhood, of communities repairing the deficiencies of earlier builders and settlers. Architects and developers will have a long task ahead, infilling the older suburbs."

There are other projects on Saur's mind. ("The shopping center is one of the most exciting architectural forms of the 20th Century. It's pure fantasy, a whole greater than the sum of its parts, a symbol like Disneyland. I'd love to do one.") The firm has worked with developers, and intends to continue the practice. Uniting these concerns and the firm is the belief that architecture can be a determinant in human activity. Saur concludes, "People are aware of visual phenomena, though they often lack the means to express their feelings. Architects must not propagate a popular level of ignorance simply because the public 'knows what it wants.' Land developers are not afraid to teach the public. Surely we could teach them more." It's a safe bet that H/S&A will try. [Roger Yee]





LOWER LEVEL PLAN



UPPER LEVEL PLAN





Color and texture in porcelain panels harmonize with Utah landscape



Architects: Harold K. Beecher, A.I.A., & Associates, Salt Lake City, Utah Porcelain Panels: Fascia Panels by Ferro Enameling Company, Oakland, Calif.; Wall Panels: Kaiser Mirawal, Port Carbon, Pa.

This is the Davis County School District's Woods Cross High School, a large rambling structure sited in the desert countryside of Salt Lake City.

The basically buff-brick exterior is enlivened with accents of porcelain-enameled steel panels and window walls. Soft tans, yellows, and oranges harmonize with the landscape.

Unifying the several planes of the structure are bold horizontals of beautifully embossed fascia panels, also in porcelain-on-steel.

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Specifications clinic

Nationally standardized technical sections

Harold J. Rosen, PE, FSCI

A case is made here for the concept of basic technical sections to be formulated into national standards that can be amended to delineate a project's exact requirements

How many times is it necessary to write and rewrite some of the very basic technical sections for every project? We have learned how to use and accept reference standards for materials and incorporate them into our specifications by reference without writing them in their entirety. We have also adopted some reference standards for workmanship and installation and embodied them into our project specifications without lengthy rewriting. Normally these reference standards remain unmodified for a number of years by the standardsmaking bodies that promulgate them. Yet certain of our basic technical sections are constantly rewritten. Is it not time to rid ourselves of the notion that a project specification must be rewritten and reissued for every technical section?

There are a number of basic technical sections in which the materials and their applications vary only slightly, yet every office in the land rewrites, re-edits, and reformats the manner in which these specification sections are written. If we could agree that some basic technical sections could be made part of a specification by reference as we currently use reference standards, we could free specifiers to devote more time to research and to the more complex areas of the specification that need improvement. For those using a computer to produce specifications it would also create savings by eliminating the need for printouts of standard technical sections.

The approach is quite simple if we follow the concept of reference standards. A standard for a material is usually referred to an ASTM, a federal specification, or an ANSI standard as follows:

Portland Cement: ASTM C150, Type 1. Vinyl Asbestos Tile: Fed. Spec SS-T-312, Type IV. Organic Tile Adhesive: ANSI A136.1, Type I.

Workmanship and application are often referred to by ACI or ANSI standards as follows:

Placing Concrete in Cold Weather: ACI-306.

Gypsum Plastering: ANSI, A42.1.

In each instance, whether for materials selection or for description of application, a reference standard is used to identify precisely the product desired and its installation. A host of reference standards for materials in addition to the standards referred to above include AASHO for road materials, CDA for copper and brass, AWS for welding materials, etc. For workmanship and installation, in addition to those enumerated above, there are ASTM recommended practices, federal specifications, and trade association standards such as AAMA, National Terrazzo, and Mosaic Assn. and others.

There have been numerous instances in the past when organizations and federal and state agencies employed standard specification sections, and project specifications were written in the form of amendments to delineate the precise requirements essential to the project. This practice has declined but at some cost—that of producing documents as well as that of extras resulting from imprecise specifications because the specifier or author has introduced his language or made changes.

Most General Conditions are written on the basis of standard preprinted documents, amended by supplements. We recognize that this is essential so that time-tested language stands unimpaired by rewriting. Certainly the concept that standards which can be agreed upon by specifiers, manufacturers, and contractors could become nationally accepted and could become our norms has validity.

At the outset both AIA and CSI could study this approach and make a start on certain basic specification technical sections such as resilient flooring, ceramic tile, terrazzo, furring and lathing, plastering, masonry, drywall, hollow metal work and other basic technical sections. These basic sections involving materials and installation procedures could be formulated into national standards that specifiers could use as reference standards, modifying them for project specifications by amendments to the specifications comparable to the way in which we amend our General Conditions.

The process could be further simplified if we were to fragment these technical sections even more. For example there could be separate reference standards for asphalt tile, vinyl asbestos tile, linoleum, rubber tile, and vinyl bases. In addition there could be separate reference standards for installing resilient flooring on concrete, plywood etc. By such separations the amendment process will be further simplified.

Certainly this concept deserves investigation by CSI and AIA to determine its workability by producing several such technical sections and getting the input of manufacturers and subcontractors to assure acceptance by everyone involved.

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





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It's the law

Architects and the Fifth Amendment

Bernard Tomson and Norman Coplan

A federal court's decision that an architect could be required to testify before a grand jury but could not be compelled to waive his immunity against subsequent criminal prosecution is upheld by the U.S. Supreme Court

In an earlier column ("It's the law," Dec. 1972), we discussed the constitutionality of a law which required architects, or other parties contracting with the government, to testify before a grand jury and to waive immunity against subsequent criminal prosecution, subject to the penalty, in the event of refusal, of disqualification from public contracts for a period of five years. A Federal court held that although an architect could be compelled to answer questions relating to the performance of his official duties on pain of dismissal and disqualification from public employment, he could not also be required to waive his immunity against subsequent criminal prosecution. This decision was appealed to the United States Supreme Court and that Court has recently handed down its rule affirming the judgment of the lower Federal court (*Lefkowitz v. Turley*).

The architects involved in this appeal were duly licensed by the state in which they practiced and had been summoned to testify before a grand jury for the purpose of furnishing testimony in response to inquiries into their job performance under a contract with the state. Although the architects refused to sign waivers of immunity against criminal prosecution and were excused from testifying, they were then notified that under state law, unless they testified, their contract would be terminated and they would be disqualified from public work for a period of five years. The architects thereupon challenged the constitutionality of the statute which was being invoked. The Supreme Court stated:

"The Fifth Amendment provides that no person 'shall be compelled in any criminal case to be a witness against himself.' The Amendment not only protects the individual against being involuntarily called as a witness against himself in a criminal prosecution but also privileges him not to answer official questions put to him in any other proceeding, civil or criminal, formal or informal, where the answers might incriminate him in future criminal proceedings....

"There is no room for urging that the Fifth Amendment privilege is inapplicable simply because the issue arises, as it does here, in the context of official inquiries into the job performance of a public contractor. Surely, the ordinary rule is that the privilege is available to witnesses called before grand juries as these appellee architects were."

The state appeared to contend that it had a legitimate interest in maintaining the integrity of its transactions with independent contractors and that this interest was sufficiently strong to override the privilege against self-incrimination. It further argued that there was a distinction in the application of the privilege to employees of the state as compared to independent public contractors. The Court, in rejecting this argument, although recognizing the need of a state to obtain information to assure the effective functioning of government, concluded that immunity is required if there is to be "rational accommodation between the imperatives of the privilege and the legitimate demands of government to compel citizens to testify." The Court said:

"The State sought to interrogate appellees about their transactions with the State and to furnish possibly incriminating testimony by demanding that they waive their immunity and by disqualifying them as public contractors when they refused. It seems to us that the State intended to accomplish what is specifically prohibited—to compel testimony that had not been immunized. The waiver sought by the State, under threat of loss of contracts, would have been no less compelled than a direct request for the testimony without resort to the waiver device. A waiver secured under threat of substantial economic sanction cannot be termed voluntary."

In respect to the position of the state that a different rule should apply to a public contractor as compared to an employee of the state, the Court stated:

"We fail to see a difference of constitutional magnitude between the threat of job loss to an employee of the State, and a threat of loss of contracts to a contractor. If the argument is that the cost to a contractor is small in comparison to the cost to an employee of losing his job, the premise must be that it is harder for a state employee to find employment in the private sector, than it is for an architect. An architect lives off his contracting fees as surely as a state employee lives off his salary, and fees and salaries may be equally hard to come by in the private sector after sanctions have been taken by the State. In some sense the plight of the architect may be worse, for under the New York statutes it may be that any firm that employs him thereafter will also be subject to contract cancellation and disqualification. A significant infringement of constitutional rights cannot be justified by the speculative ability of those affected to cover the damage."

The United States Supreme Court concluded by emphasizing that the testimony sought by the state could be compelled "if neither it, nor its fruits, are available" for subsequent criminal proceedings. If the state were willing to grant immunity to the architects against subsequent criminal prosecution, the architects could be required to testify before the grand jury and would be subject to disqualification for future public work should they refuse.

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

VARI-TRAN AND THERMOPANE SOUARE-OFF AGAINST A TEXAS SKY.



Pennzoil Place, Houston, Texas. Owner: Gerald D. Hines Interests, Houston.

Architects: Philip Johnson & John Burgee, New York City, and S. I. Morris Associates, Houston. General Contractor: Zapata Warrior Constructors—A Division of Zapata Constructors, Inc. Curtain Wall & Glazing Contractor: Cupples Products Division, H. H. Robertson Co., St. Louis.



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Thin folding chair has chrome steel frame, seat and back of natural cane. Depth 18", height 29½", seat height 17½". Hank Loewenstein, Inc. *Circle 109 on reader service card*



Teaching wall





Sodium lamp

Estimating calculator

Technical/visual film. Products can be used to eliminate repetitive steps in design, drafting, engineering, and architectural work; also for visual presentations and office procedures. Various films take images from plain paper copies, typewriter, pencil, ink pen, or printing press. Product consists of a transparent acetate or polyester film with a receptive coating on one side and pressure-sensitive adhesive coating on the other side with a peel-off backing sheet. A designer merely peels off his pre-painted symbols needed to complete his drawings. Saga, Inc.

Circle 110 on reader service card [continued on page 118]

"Weathering" for sale ... Cabot's BLEACHING OIL

Hame by Techbuilt Inc., N. Dartmouth, Mass.; Architect: Fred Della Paolera; Cabot's Bleaching Oll on cedar siding and fence.

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From low-cost to no-expensespared, from garden court to high-rise, Andersen has a window that complements the concept.

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Cold Springs Park Apartments, Manchester, Pennsylvania. Architect: P. Thomas Long, W. Reading, Pennsylvania. Builder: Henry J. Mohr, Manchester, Pennsylvania. Windows: Andersen Perma-Shield® Narroline® Windows.
Housing for The Elderly development, Herman, Minnesota. Architect: R. F. Ackermann & Assoc., St. Paul, Minnesota. Windows: Andersen Perma-Shield® Gliding Doors and Beauty-Line® Windows.
Brentwood Park Estates, Stillwater, Oklahoma. Architect: Dan Higgins, Tulsa, Oklahoma. Builder: Boomer Development, Inc., Stillwater, Oklahoma. Windows: Andersen Casement Windows.
The Villas at Crestview Country Club, Wichita, Kansas, Designer: J. D. Finney, Wichita, Kansas, Builder: Jerald R. Jones Companies, Wichita, Kansas. Windows: Andersen Perma-Shield Casements, Awnings, and Gliding Doors.
Chateau du Lac Apartments, Duluth, Minnesota. Architect: Damberg & Peck, A.I.A., Duluth, Minnesota. Builder: Hedenberg Construction Co., Duluth, Minnesota. Windows: Andersen Casement Windows.

storm windows. And, with only two glass surfaces to clean instead of four, it cuts cleaning chores in half.

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Products and Literature continued from page 113

Solar water heater. Its copper tube-in-sheet collector has selective surface which absorbs some 90 percent of the sun's radiation but emits only about 10 percent of that collected. Each Solapak is capable of producing 10 gal. of very hot water each sunny day and any number may be connected to produce the required volume. Solar Energy Digest. *Circle 111 on reader service card*

Metric conversion computer. Handheld electronic computer changes U. S. standard weights and measures instantly into metric measurements or vice versa while it doubles as a five-function miniature calculator with memory. Weighs less than 9 oz. and measures 2¾"x4"x1%". Summit International Corporation.

Circle 112 on reader service card

Dotz. Said to be an economical replacement for drafting tapes, these %" dia. circles of tape on a strip of backing paper come packed 500 to a dispenser box. Pull the strip and individual circles are ejected. Dietzgen Corp. *Circle 113 on reader service card*

Concept collection combines carpeting, leather, fabric, and wallcovering for total integration of furnishings. Wide choices of color, designs, weaves, fabric content are available. Jack Lenor Larsen, Inc.

Circle 114 on reader service card

Caliper chair has solid steel frame in mirror chrome or antique bronze finish, webbed seat, high density polyurethane foam padding. Its double caliper shaped base supports upholstered shell-like seat and back. Wide choice of upholstery. Kasparians.

Circle 115 on reader service card

Multiscan. A sensing device to control automatic entrances without floor mats. Optical-electronic system reduces lifetime automatic entrance cost by eliminating cost of replacing worn floor mats. Mounted in a protective aluminum housing at the door jamb, it defines area of control by transmitting a pattern of pulsed infrared light. Persons within detection range reflect light to an optical receiver. Sensor converts light to electricity, then amplifies it with solid state electronics to operate door. It produces no ultrasonic, microwave, radar, X-ray or other harmful emissions, will not interfere with the operation of other sensitive electronic devices. Kawneer Co. *Circle 116 on reader service card*

Modular service wall system centralizes architectural, mechanical, and electrical service facilities in a single location on a given floor. Each module has its own frame and can be used independently or in conjunction with other modules to form a wall system of all other desired functions (fire equipment, emergency phones, drinking fountains, etc). Reduces number of wall cut-outs. Halsey Taylor Division, King-Seeley Thermos Co.

Circle 117 on reader service card [continued on page 122]



The grout is less than 10% of the cost of the tile floor or wall. But 90% of failures are the result of using the wrong grout. That's why architects demand the highest quality, most durable grouts and setting beds available — Atlas Rezklad epoxy grouts and setting beds.

Atlas epoxies have proven their ability to resist acids, alkalies, salts and cleaning agents, greases, while exhibiting low absorption and resistance to freezethaw cycles. Atlas epoxy grouts have the added assurance of a three-component system - resin, hardener and filler - to guarantee easy workability and proper curing for consistent high-strength quality. So on your next job, specify the grout that will last . . . specify Atlas epoxy grouts and setting beds.



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73-04

Some sash designs need to put the pressure on glazing tape.

Stick curtainwall systems and pocket-glazed windows provide structural economies in many applications. But they also present you with some formidable glazing problems.

For one thing, the pocket channel allows the glazer very limited working space. This

glazer very infitted working space. This means he must either, 1) position the glass first and then apply a gunnable sealant from the outside —necessitating costly swing stages or, 2) do the glazing from the inside by using a tape sealant and then insert the glass, applying a positive pressure by means of wedges or gaskets. This tape sealant must be 25%-50% compressible, yet must not squeeze out of the channel despite the pressure.

Another problem — illustrated on the opposite page — is the offset condition of channels in stick system glazing. As you can see, there is a

¹/₈-inch differential between the vertical and horizontal members in the illustration. When glass is put in under pressure, the two tapes are compressed to provide a uniform plane, in order to prevent leaks and distribute stress evenly. Besides the design problems just mentioned, you and your glazing contractor are faced with increasingly critical glazing conditions as buildings go higher and higher. For example, larger lights of glass, greater pressure differentials and higher windloads all put a bigger burden on glazing techniques. Omitted, misplaced or incorrectly chosen shims compound these problems and raise the possibility of leaks and glass breakage.

3/8"

All these conditions call for something special in the way of glazing tape. And Tremco has it. It's called POLYshim." And it's designed for use wherever design conditions call for 25% to 50% compression. It contains a continuous, integral reinforced shim that transfers windload from glass to sash evenly around the entire perimeter. This climinates pressure points or any danger that the sealant will pump out of the sash.

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avoid mess, waste and tape distortion. POLYshim is self-adhering and forms a tight seal that effectively prevents water infiltration, resists ultraviolet and withstands temperatures as low as -65°F and as high as 220°F. In addition to practical applications in major buildings around North America, POLYshim has POLYshim passed independent laboratory tests for dynamic and static water infiltration. buffeting by wind and water, thermal and pressure loading and accelerated aging. So when the pressure's on glazing tapes, specify POLYshim. And if you have any other caulking, glazing or weatherproofing problems, remember your Tremco man can help. POLYshim For over 40 years, our business has been solving these problems and providing top-quality leakproof systems and products, such as our job-proven sealants MONO, DYmeric[®] and Lasto-Meric, liquid polymer Tremproof[™] waterproofing and our new roof edging system, Tremline™ - 3/16 The Tremco Manufacturing Company, Cleveland, Ohio 44104. Toronto 17, Ontario



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ADDRESSOGRAPH MULTIGRAPH

Products and literature continued from page 118

Double-deckers. Glass-walled observation elevators have been combined with double-deck elevators to carry more passengers without taking proportionally more space. Suitable for top-of-the-tower restaurants and hotel use for sightseeing. Otis Elevator Company.

Circle 118 on reader service card

Literature

Glass. 1974 color brochure covers a wide variety of glass: tempered, insulating, reflective, sun and sound control, to name a few. Technical data is included in chart form. C-E Glass. Circle 200 on reader service card

Carved panels and doors. Solid 13/4"-thick redwood doors (3'x6'-8"), with door panels carved on both sides are illustrated in brochure. Carved panels, 28"x69"x%" thick, may be used as flush door appliques, wall hangings. Original designs by Design-crafts.

Circle 201 on reader service card

Textured Indiana limestone. Floor-to-floor panels are said to be more economical than competitive products, can be installed quickly, even in cold weather. Brochure gives descriptive data and suggests uses. Harding & Cogswell Corp. Circle 202 on reader service card

Solar control system. A translucent wall system with a U-factor of 0.06, makes it only light transmitting system with such low insulation values, according to maker. Information and literature are available. Kalwall Corporation. Circle 203 on reader service card

Laminated wood structural systems for clear-span circular buildings are featured in 8-page booklet. Described is the Triax glue-laminated timber dome which is ideal for building diameters up to 400 ft. Koppers Company, Inc. Circle 204 on reader service card

Handcrafted brass lanterns. Collection includes four designs in authentic Williamsburg style and is available in natural brass and company's colonial antique brass finish with clear acrylic panels (glass on special order). Each element is hand made. Hadco Products, Inc. Circle 205 on reader service card

Directional and informational signs. Illustrated, four-color brochure contains detailed information about chalk and cork bulletin boards, changeable letter boards, display cases, building directories and more. A. C. Davenport & Son Co. Circle 206 on reader service card

Aluminum construction products. Catalog features "Econogard" gravel stop which maker states offers same protection at about 40 percent less cost than previous stop. Included in booklet are coping, fascia, roof expansion joints. W.P. Hickman Company.

Circle 207 on reader service card [continued on page 126]

122 Progressive Architecture 3:74

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Performance at prices you can afford!

Glidden's new GLID-TILE Polyester-Epoxide HIPAC (High Performance Architectural Coating) system resists corrosion, stains, abrasions, and meets Federal specifications TT-C-550a and TT-C-001226.

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Keylocks. 16-page color catalog contains more than 60 photos of knob styles, one- and two-piece entry handle keylocks, lever handles, deadbolts, and miscellaneous locks and trim. Pertinent data and general specifications are included. Weslock Company.

Circle 209 on reader service card

Metal wall and roof systems. Planned for easy use by building designers, catalog includes cutaway illustrations of exterior profiles, panel systems, dimensions, features, load span tables, and complete architectural specifications. Also contains a color chart and architectural specifications on available coatings and photos of typical installations. Elwin G. Smith Division, Cyclops Corporation. *Circle 210 on reader service card*

Structural glued laminated timber systems. 36-page color brochure is designed to provide technical information on glulam for architects and engineers. It contains stress tables, section properties tables, and preliminary beam design and arch design tables, provides examples of typical construction details and information on decking systems as well as information on preframed plywood panelized roof systems including typical grid patterns for two- and three-span cantilevered beam systems. More than 35 color photos of completed glulam projects are shown in brochure. American Institute of Timber Construction.

Circle 211 on reader service card

How to build arches. Bulletin explains the use of Arch-Maker metal form and shows step-by-step photographs. Drawings show types and sizes of arches possible. Designed for building either fine or rough arches, tool can be set to give exact repeatable arches. Western Reserve Arch Co. *Circle 212 on reader service card*

Washroom accessories for commercial, institutional, and industrial use are described in 28-page color catalog. Includes specifications and dimensional drawings. Bradley Corp. *Circle 213 on reader service card*

Designers survival index 1974. A wall poster printed each year shows a major portion of company's contract furniture line. Available to architects, designers, decorators, office furniture dealers, and other trade members. Stendig Inc. *Circle 214 on reader service card*

Floor products. Catalog features wall base, tile, corner guard protective edgings. Tile line includes contract grade Microsquared tiles, solid vinyl static-conductive tile and ice-skating and multipurpose recreational flooring. Vinyl Plastics, Inc. *Circle 215 on reader service card*

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Books

Architecture for worship

Architecture for Worship by E. A. Sovik. Minneapolis; Augsburg Publishing House, 1973, 178 pp., paperback, illustrated, \$3.50.

Reviewed by Rita Robinson, former Managing Editor of Progressive Architecture.

Architecture for Worship is an important contribution to a growing movement that seeks to free Christian churches from their traditional trappings. It's easy enough to agree intellectually with the premise, but, in the long run, very hard to agree emotionally—especially for those of us who still feel slightly guilty lighting a cigarette in the church social hall.

People are holy, says the author, not the buildings. Buildings are merely shelters, and church buildings are necessary only because large groups of people need large spaces in which to gather. Sovik proposes buildings based on the 1st Century principle, a place to gather, plus a place that is put at the disposal of the community when not needed by the congregation. He proposes buildings designed for flexibilitysimple structures that serve people seven days a week. He would replace the nave and sanctuary with a "centrum," pews with chairs, altars with tables, pulpits with simple lecterns, ecclesiastical details and motifs with portable furnishings that are brought into the centrum only when it becomes a worship space.

He answers the question of how, without ecclesiastical trimmings and motifs, can church architecture perform its mission of witness: "The details and motifs have nothing to do with the matter. They are like labels, and are not the substance. At best, they are only a statement of intention; the reality lies elsewhere."

The reality, Sovik continues, is a commitment to truth and to the authentic, reflected in architecture that is absolutely forthright, entirely authentic, without deceits or illusions, without artificialities.

The book is well worth reading, if only for its concise history of Christianity and its buildings, which puts the entire premise and argument into sharp perspective. There are also examples of church architecture which enforce the central premise, notes on how to design a centrum, a chapter on portable furnishings that are brought into the centrum to make it a place of worship, drawings and photos of remodeled existing churches that not only follow Sovik's premise but have gained flexible, adaptable space. It's a book for every architect who has or might be called upon to do a Christian church, as well as a book for the architect to make available to his existing or future clients.

The Britannica Encyclopedia of American Art. New York: Chanticleer Press. 1973. 669 pp. \$29.95.

Here, between two handsomely embossed canvas covers, is the promise of a one-volume reference to all the arts of the United States: painting, sculpture, prints, folk arts, handcrafts, photography, decorative arts, and—of principal interest to our readers—architecture. Its 800 illustrations, 350 in color, are handsome, diverse, and carefully chosen to read well in reproduction. Layout is on the whole excellent, except for a few painful splits of illustrations across the binding.

Yet, despite "the distinguished imprimatur of the Encyclopedia Britannica," the book is simply not as "authoritative" as the writer of the jacket blurb would have us believe. For the architecture coverage (and that is all I'll take up here) the editors enlisted five very knowledgeable authors: [continued on page 130]



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THE GEORGIAN ART LIGHTING FIXTURE, EXPOSED.



Books continued from page 128

Paul F. Norton (up to 1870), Alan Burnham (1870–1930), David Gebhard (1930–1960), C. Ray Smith (1960 to date), Henry Hope Reed (landscape architecture).

The value of the book as a reference is undermined by the extent to which some of these authors have been allowed to indulge personal enthusiasms. Among the articles on styles, we find Streamlined Moderne and Zigzag Moderne, by Gebhard, Minimal Architecture and Supermannerism, by Smith. These categories have a certain rationale; they may even catch on. But here they are presented as if already widely accepted: Charles Moore is identified as "a leading architect in the design revolution called supermannerism"; I.M. Pei's National Air Lines Terminal is called "one of the purest products of the minimal style." As for Henry Hope Reed, he turns the whole history of American landscape architecture upside down by reviewing it as a steady progress of classical garden design, with occasional lapses into the picturesque.

Considering the number of individual architects and firms listed (over 120), it is surprising that pivotal figures—some identified as such in the general articles—do not rate entries of their own. Calvert Vaux is out, but his partner, Withers, is in; John Wellborn Root is out, but Leroy Buffington is in; John Russell Pope is out, but Horace Trumbauer is in; Wallace Harrison is out, Raymond Hood is in (but Hood's article makes no mention of Rockefeller Center, which is illustrated, but inadequately credited, under "Architecture.") Victor Gruen gets no listing, nor does Eric Mendelssohn.

The matching of illustrations and captions occasionally goes awry. The "Queen Anne" illustration clearly isn't, and it must have shocked Alan Burnham; an almost windowless lab tower at Cornell by Franzen is identified as a "graduate residence"; Edward Stone's Kennedy Cultural Center in Washington is mislabeled (with tongue in cheek?) as his U.S. Embassy in New Delhi; the building identified as Maybeck's Hearst Hall at Berkeley is actually Mackintosh's Art School in Glasgow (only in America!) These are by no means all the errors noted, and only a small fraction of those could probably be spotted by a diligent nit-picker informed about all the American arts. [JMD]

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Notices

Appointments

Jim D. Jackson and John M. Farrell have been appointed associates of Golemon & Rolfe, Houston, Tex.

George C. Toop, Jr. has been named an associate partner of Wallace, McHarg, Roberts & Todd, Philadelphia.

Indrikis Kaneps, AIA, Michael Callori, AIA, and Dennis Mylan, AIA have been named partners of J. Robert Gilchrist & Associates, Architects and Planners, Hackensack, N.J.

Donald L. Whitesell has been named an associate of Shriver & Holland Associates, Norfolk, Va.

Pierre A. Belhumeur has been made a principal of Bednarski Stein Inc., Greenfield, Mass.

Burk Ketcham has joined Daniel, Mann, Johnson & Mendenhall, Los Angeles, as deputy director of the planning and economics division.

Jonathan D. Lloyd has been appointed director of the architectural production department of Albert C. Martin & Associates, Los Angeles.

Earl Roy Wardrum, AIA has joined Setter, Leach & Lindstrom, Inc., Minneapolis, as project officer for health care facilities.

Frank J. Wong, AIA, has been appointed vice president and director of architectural design at Burke Nicolais Archuleta, Los Angeles, Calif.

Alan Rosen, AIA, has been named assistant director of the Los Angeles regional office of Welton Becket & Associates.

Edmund Meland and Gordon Siechert have been appointed directors of production and design, respectively, of McClellan / Cruz/Gaylord & Associates, Pasadena, Calif. N. Glenn Widing has been named construction manager.

Mitchell/Giurgola Associates, Architects, Philadelphia and New York, have announced the following appointments: Fred L. Foote, AIA, Rollin R. La France, AIA, John Q. Lawson, AIA, G. Daniel Perry, AIA, Peter W. Parsons, general partners; Steven M. Goldberg, Harold S. Guida, Michael A. Rubenstein, Noel Jon Tyson, AIA, and George C.N. Yu, associate architects.

John E. Potterton has been named vice president and director of marketing for Hammel, Green & Abrahamson, Inc., St. Paul, Minn. Mark A. Viets has been elected chairman of the Board of Principals of Peckham-Guyton Architects, St. Louis, Mo.

Leonard G. Gordon has been named vice president of Wilsey & Ham, Los Angeles.

Charles M. Boldon, AIA has been elected president of Conrad Building Systems, Van Nuys, Calif.

William T. Cleland has been appointed executive vice president of Seelye Stevenson Value & Knecht, Inc., New York City.

Brian R. Cooper has been appointed associate of Frank L. Hope & Associates, San Diego.

Harry N. Andresen was named an associate of the Burke Associates, Seattle.

Thomas C. Halliday, PE has been elected a vice president of Albert Kahn Associates, Inc., Architects and Engineers, Detroit.

Juanita Mills, Gordon B. Simmons, AIA, Gerald G. Harley, and Dale L. Bardes, AIA have been named to the board of directors of Architekton, Inc., Cincinnati. Hubert M. Garriott, AIA, Robert L. Williams, AIA and Harold S. Moore, AIA are now senior vice presidents of the firm.

Lawrence H. Boyd has joined Charles Kober Associates, Los Angeles, as director of construction administration.

Eckerlin-Klepper-Hahn, consulting engineers of Syracuse, N.Y., is now Eckerlin, Klepper, Hahn & Hyatt with the appointment of Gordon R. Hyatt, PE as a principal.

Robert A. Herlihy, AIA and H. Gibbs Reese, AIA have joined Jova/Daniels/Busby, Atlanta, Ga., as project architects.

Valentine A. Satko, AIA has been named director of medical facilities for Ellerbe, Bloomington, Minn.

Immanuel Vorrath has been appointed vice president-architect at Burke Nicolais Archuleta, Los Angeles. Dan Powell has been appointed vice president and director of interior design.

Tim Unruh has been named associate of Robert T. Morris, planning & architectural firm, Santa Rosa, Calif.

Clifford Mitchell, Jr., AIA was named an associate of Milton Lewis Howard Associates/Architects, Hartford, Conn.

Frank Hennessy, Keith B. Renner and John V. Zehren have joined the staff of the San Francisco office of Hall & Goodhue, AIA, AIP.

James P. Callmer, AIA has joined Dalton-Dalton-Little-Newport, Bethesda, Md.

David L. Hawkins has been named manager of the design department of Ellis / Naevaert Associates, Inc., Warren, Mich,

Thomas A. Norton, AIA, has been appointed director of architecture for Rockefel-[continued on page 137]





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Circle No. 357, on Reader Carrier

Not functional efficiency, not beauty of form and texture, but Life Safety is the architect's basic obligation to society. Recent fatal fires in "fire-proof" high-rises have brought the problem to public attention, and even made it the subject of a forthcoming movie. Meanwhile, architects have had to confront questions about the behavior of plastics in fires, about the security risks of emergency exits, about the true purposes of building codes. They have had to interpret and meet Federal occupational safety and health standards. This issue will clarify safety considerations and show their impact on building planning and construction.

Among subjects to be covered:

School planning and fire safety: newest schools in the vast Chicago system permit more flexible interior layouts and reduced construction cost, with improved safety.

Fire in the office tower: implications of revised New York City codes, including new responsibilities of the interior space planner and his client, the tenant.

Safety begins at the drafting board: why the firm of Max O. Urbahn Associates appointed a Director of Environmental Security and what his responsibilities will be.

Hazards of the home: report of on-going research by BOSTI into the accident risks of the American house and how to combat them.

Personal safety in the community: research by Abt Associates on design defenses against crime.

Occupational safety: Federal regulations and intentions have been clarified through analysis and application.

Prepare-for-the-worst bookshelf: an annotated list of essential references on Life Safety for every design professional.



Notices continued from page 134

ler Center, Inc. New York City.

Joel B. Cantor is now an associate of Karl Treffinger & Associates, Architects, San Francisco.

Edward Fordyce, architect and engineer, has joined the Science Museum of Virginia as chief planner.

Giffels Associates, Inc., Detroit has announced the following appointments: Ernest R. McCamman, Arthur O. Moran, Jr., and Vural Uygur, senior vice presidents; Daniel J. Bohn, vice president-administrative services; Gerard J. Cottrell, corporate secretary, and Daniel J. Giffels, corporate treasurer. Robert R. Miller has been named to the Board of Directors.

Edward C. Friedrichs III has been named vice president of Gensler & Associates, San Francisco. James R. Follett is now vice president and manager of the Denver office.

Kenneth D.B. Carruthers, AIA and Paul S. Pierson, AIA have been elected vice presidents of Perkins & Will, Chicago.

Herman DeJong, RA has joined Richard S. Cowan & Associates Inc., Quakertown, Pa. as director of architectural services.

Fred L. Carlton, AIA, Richard S. Gates, AIA, Stephen Rajki, Jr., AIA, and Edward L. Reimel, AIA are new associates of Dalton, van Dijk, Johnson & Partners, Cleveland.

Forest Dickason, AIP has joined Danielian Moon Sampieri & Ilg, Newport Beach, Calif. as director of planning.

Charles Lentz, Jr., Richard MacAdams, Robert Lackney, and John Luscombe are partners and corporation shareholders of Samborn, Steketee, Otis & Evans, Inc., Toledo, Ohio. Carl Conner, John Ehrmin, and Arvind Shah have been named associates of the firm.

Name changes

Carroll, Grisdale & Van Alen is now J. Roy Carroll, Jr. & Partners, Philadelphia, with Elisha Safford, Jr., Joseph C. Didinger, George C. Felton, Clarke Bachman, and Collins S. Keller, Jr. as new partners.

Norton & Hume Architects Corporation is now Norton Kearin Hume Architects Corporation, Stamford, Conn. with Thomas Hume, AIA, president, Daniel Kearin, AIA, vice president, and Thomas A. Norton, AIA, consultant.

David Todd & Associates, New York City has been succeeded by Todd, Basile, Cabrera & Wong, p.c. Architects.

The Office of James R. Edmunds, Jr., Architects, Baltimore, Md., is now Edmunds & Hyde, Inc.

Miller Melby Hanson Architects Inc. is

now Miller Hanson Westerbeck Inc., Minneapolis, Minn.

Carson, Lundin & Shaw, New York City, is now Carson, Lundin & Thorson.

Jennings Newman VanEtten Winfree Architects and Engineers, Winston-Salem, N.C. is now Newman VanEtten Winfree Associates with the admission of Thomas D. Calloway, Jr., AIA and Donald W. Johnson, AIA as partners.

New firms

James J. Fitzgerald, AIA, Architect, P.O. Box 19, Topsfield, Mass. 01983. Martin Warren Berlow, Architect, AIA, 38 E. 57 St., New York City 10022.

Carrell S. McNulty, Jr., FAIA, 1210 Post Rd., Fairfield, Conn. 06430.

C. Harold Wirum, AlA Architect, 619 E. Fifth Ave., Anchorage, Alaska 99501.

James M. Sink Associates, Southern National Bank Bldg., Houston, Tex.

Araldo Cossutta, AIA and Vincent Ponte, MAIP have formed **Cossutta & Ponte** with offices at 600 Madison Ave., New York City 10022, 90, avenue des Champs-Elysées, 75008 Paris, France and Place Bonaventure 952, Montreal 114, Quebec, Canada.

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Architect: Position available with A/E firm in Black Hills area of western South Dakota. B.A. architecture, at least one year's experience in an architect's office or similar summer employment. Salary commensurate with ability and experience. Equal opportunity employer. Send experience record and salary requirements. Reply to Box #1361-636, Progressive Architecture.

Architect: Young university graduate with design and sketching ability for expanding firm in Florida. Please enclose freehand sketches of past work with application. Excellent potential for future associateship for the right person. Reply to Box #1361-637, Progressive Architecture.

Architect: Top flight registered and experienced architect to head a small architectural department in a design and construction oriented firm. Must be motivated to assume full responsibility and anticipate returns commensurate with contribution and performance. Please submit resume of qualifications, experience and salary requirements to: Con-Sul, Inc., 2357—59th Street, St. Louis, Missouri 63110.

Architect: Small, design oriented, high performance firm with diversified and wellfinanced clientele is searching for one graduate architect with three years experience. This is a permanent position in our South Florida office. Our employees know of this ad. Reply to Box #1361-655, Progressive Architecture.

Architect: Well established Sacramento, California firm desires architect with strong design orientation degree plus minimum two years experience. Salary open. Submit resume. Reply to Box #1361-656, Progressive Architecture.

Architect/Designer: Design oriented A & E firm with offices in Northern, Central and Southern Illinois seeks two graduate design architects. At least one with 3 or more years experience, preferably registered. Outstanding opportunity for advancement in growing firm with challenging projects. Comprehensive hospitalization, life and disability insurance, vacation, sick leave and profit-sharing plan. Send resume or contact: George Magee, FGM, Inc., P. O. Box 1668, Mt. Vernon, Illinois 62864. Phone 618-242-5620. An equal opportunity employer.

Architects: For group leader positions with experience on working drawings for schools, shopping centers and medical projects. Key positions open in 200 man office. Daverman Associates, Inc., 200 Monroe, N.W., Grand Rapids, Michigan 49502. An equal opportunity employer.

Architects for Peace Corps/Vista-Action: Volunteer overseas and U. S. Low income housing projects, design of schools, hospitals, community centers, etc. Most openings —singles; some couples. Information: Bruce Mazzie, Action, OCP Box A-2, Washington, D.C. 20525.

Architects/Planners: Exciting quality firm, Baltimore and Orlando needs experienced key people: designer, project architect, land planner. Resume to John B. Clark of Tatar Lininger, Inc., 250 Village Square, Village of Cross Keys, Baltimore, Maryland 21210.

Architectural Designer: Midwest firm with national projects has position for creative designer with experience in site planning, building design, and client presentations. Outstanding opportunity for accomplishment of significant buildings and advancement as key member of interdisciplinary design team for major educational, institutional, and industrial projects. Send confidential resume of qualifications and experience. Reply to Box #1361-639, Progressive Architecture.

Architectural Designer and Delineator: For progressive office in Montreal with international business. Excellent possibility for advancement with young design oriented firm. Relocation expenses paid. Please include samples of work with application. Reply to Box #1361-640, Progressive Architecture.

Architectural Firm: Offering three positions: architectural draftsman—experienced, commercial, institutional projects; delineator experienced, multi-medium; land planner experienced, regional and city planning. Salary commensurate with ability, plus benefits. The Twitchell & Allen Group/ Architects—Planners, P. A., 25 N. School Avenue, Sarasota, Florida 33577. Phone: 813-955-9881.

Architectural Specification Writer: Competent career-oriented professional with experience in architectural project specification writing; responsible for development of specification writing; responsible for development of specification standards and department organization; established, large general practice in central Pennsylvania; send detailed resume of experience, education, and salary history in confidence to Post Office Box 1144, Harrisburg, Pennsylvania 17108.

Assistant: Fifteen man Central Florida architectural firm seeks assistant to design chief. Prefer graduate with three years experience. Duties include design delineation and construction document preparation. College town, symphony orchestra, art museum, water activities. Inquiries to Tom Hunton, 1210 Edgewater Drive, Orlando, Florida 32804. Telephone (305) 423-3495.

Construction Management: Position open to architects or engineers experienced in CPM scheduling, systems design, estimating, contracting and other CM programs. Opportunity to join expanding department at Daverman Associates, Inc., 200 Monroe, N.W., Grand Rapids, Michigan 49502. An equal opportunity employer.

Construction Supervisor: Medium sized Florida firm seeks experienced construction supervision man. Architect or contractor background required. Permanent position for the right man. Reply to Box #1361-657, Progressive Architecture.

Designer: Continued growth into a nationwide practice of our Southwest based A & E firm has made it possible to offer experienced persons an outstanding compensation package while working on a variety of projects. Candidates will have three to five years in preparing working drawings, coordination and checking of all phases for a complete document package. Write today in complete confidence. An equal opportunity employer M/F. Reply to Box #1361-613, Progressive Architecture.

Designer: Designer with extensive experience and/or training in art and architecture needed for special projects of Boston organization. Reply to Box #1361-658, Progressive Architecture.

Faculty positions: Available September 1, 1974. Undergraduate program in architecture. Teach lower and upper division courses in design. M. Arch. preferred. Rank and salary commensurate with qualifications. Send resume to John C. Knowles, Chairman, Dept. of Architecture, Temple University, Stauffer Hall, Philadelphia, Pa. 19122. An Equal Opportunity/Affirmative Action Employer.

Project Architect: Registered architect with at least 5 years medical facilities design and planning experience needed as project architect, responsible for overall direction and completion of a large variety of medical projects working with a seasoned staff of professionals. Increased work load makes opening available. Excellent opportunity for professional advancement. Outstanding benefits include profit sharing, bonus, regular salary reviews, as well as health, life, disability and accident insurances. Qualified professionals. Please send resume in complete confidence to: Cliff Schroeder, Ellerbe, Inc. (Architects/Engineers/Planners), One Appletree Square, Minneapolis, Minn. 55420. Equal Opportunity Employer.

UCLA: An equal opportunity employer has part-time and full-time teaching positions available in architectural design, urban design, history, environmental controls, computer applications. Send resume to Professor William Mitchell, Program Head, UCLA School of Architecture and Urban Planning, 405 North Hilgard Avenue, Los Angeles, California 90024.

Situations wanted

Architect: 45, NCARB, family, use of French, German, Russian languages; 19 years of comprehensive experience in design. Coordination, field supervision. Interested in systems building, pre-fab, modular constructions. Seeking negotiation with profit sharing corporation or development firm with domestic and international work. Reply to Box #1361-659, Progressive Architecture.

Architect: 28, British; R.I.B.A. Registered and in practice in U.K.; desires position in private firm or municipal dept. 3 years experience, mainly education buildings, also welfare and industrial. Interest in internal environment, experience in system building. Would prefer Mass., Pa., Conn., or California. Reply to Box #1361-660, Progressive Architecture.

Architect: Registered, NCARB certificate, AIA, 39, currently junior facility architect in a corporate planning team. Fourteen years diversified experience in survey, study, programing, designing, production and construction management. With Masters in urban planning. Seeking responsible position in architectural firm. Reply to Box #1361-661, *Progressive Architecture.*

Architect: Desires position with small or medium sized southern firm needing experienced, competent, proven design and production leadership. 25 years independent practice, many national design awards, exemplary professional reputation. Reply to Box #1361-662, Progressive Architecture.

Architect: With 22 years experience as a principal, seeks employment opportunity with active, progressive firm. Capable of directing staff in all aspects of architectural practice. Strengths lie in client relations, specification writing, estimating, co-ordination of design team, and general administration of complete project development. Reply to Box #1361-663, Progressive Architecture.

Architect/Business Development/Office

Management: NCARB, AIA with multiple registrations, 20 years comprehensive experience in private practice and multi-discipline offices east coast. Responsible for business development, proposals, presentations, contract negotiation, administration and project follow-up. Seeking partnership potential. Will consider all regions. Reply to Box #1361-664, Progressive Architecture.

Architect/Designer: Registered in Maryland and D.C., AIA and NCARB, 10 years diversified experience in all phases of architecture w/Eastern firms as designer and project architect. Seeking challenging, responsible position with architectural firm, corporation or company in Denver, Boulder Colorado area. Resume available. Reply to Box #1361-672, Progressive Architecture.

Architect/Designer: Wisconsin registration, A.I.A., Bach. architectural, married, 6 plus years experience as designer and project architect for residential, institutional and commercial projects. Seeking challenging, responsible position with southeast, west coast or international firm. Resume and portfolio available. Reply to Box #1361-665, Progressive Architecture.

Architect/Manager: Considerable experience in design, project and office management, field supervision, client contact. High-rise and corporate office buildings, medical facilities, airports, hotels, multi-use projects. Feasibility, zoning reports, service proposals; multiple degrees and licenses. Married, will relocate. Seeking firm with partnership-equity position. Reply to Box #1361-666, Progressive Architecture.

Architectural Lecturer: AIA, 37— B.S. Arch. and M. Arch. Over 10 years teaching experience in U.S.A. and abroad lecturing in graphics, structural mechanics and design. Desire position in architectural/engineering faculty. Resume, references and brochure of work on request. C/o F.G. Collins, 234 Olympia Drive, St. Louis, Mo. 63135.

Architecture Graduate: Dec. '73 B.A. degree Washington University, St. Louis. Intensive university design curriculum with professional presentation techniques required. Specific courses dealing with graphic presentations, architectural drafting, working drawings, and building codes. Experience in wood frame construction. Desire position with opportunity for advancement. Send reply to: David Dunlap, Jr., 1615 Gallop Ln., Florissant, Mo. 63033.

Graduate Architect: 28, single, B. Arch., with distinction, India. 4 years (U.S. 2; Indian 2); diversified experience. Working as job captain. Taken Florida registration exam. Desire permanent position with design oriented firm. Resume upon request. Reply to Box #1361-667, Progressive Architecture.

Interior Designer: Seeking connection with architectural firm in southwest or midwest. B.S. design. 12 years experience interiors field, 4 of architect affiliation. Varied projects include: office complexes, medical clinics, community centers, restaurants, universities. Resume available. Reply to Box #1361-668, Progressive Architecture.

Manager, A/E Branch Office: Registered architect, NCARB, AIA. 20 years experience including private practice. Experienced in marketing and business administration with P & L responsibility. Strong in construction management. Would consider starting as director of CM. Commercial, industrial, institutional, residential background. Now employed as branch manager. Wish to relocate. Reply to Box #1361-669, Progressive Architecture.

Registered Architect: NCARB—N. Y. & Conn. licenses. 14 yrs. exp.—general commercial buildings. Heavy bank experience. Client contact thru field supervision. Administrative responsibility for production team on line management level. Desires position N. Y. met. area in architecture, construction management or corp. environment. Reply to Box #1361-670, Progressive Architecture.

Job mart continued from page 139

Registered Architect: Registered Iowa architect, 32, married, NCARB, AIA. Ten years experience as designer, project manager, production coordinator, and managing associate. Responsible for all types of projects with expertise in large educational projects. Desire more client contact and future partnership with small or medium firm. Reply to Box #1361-671, Progressive Architecture.

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