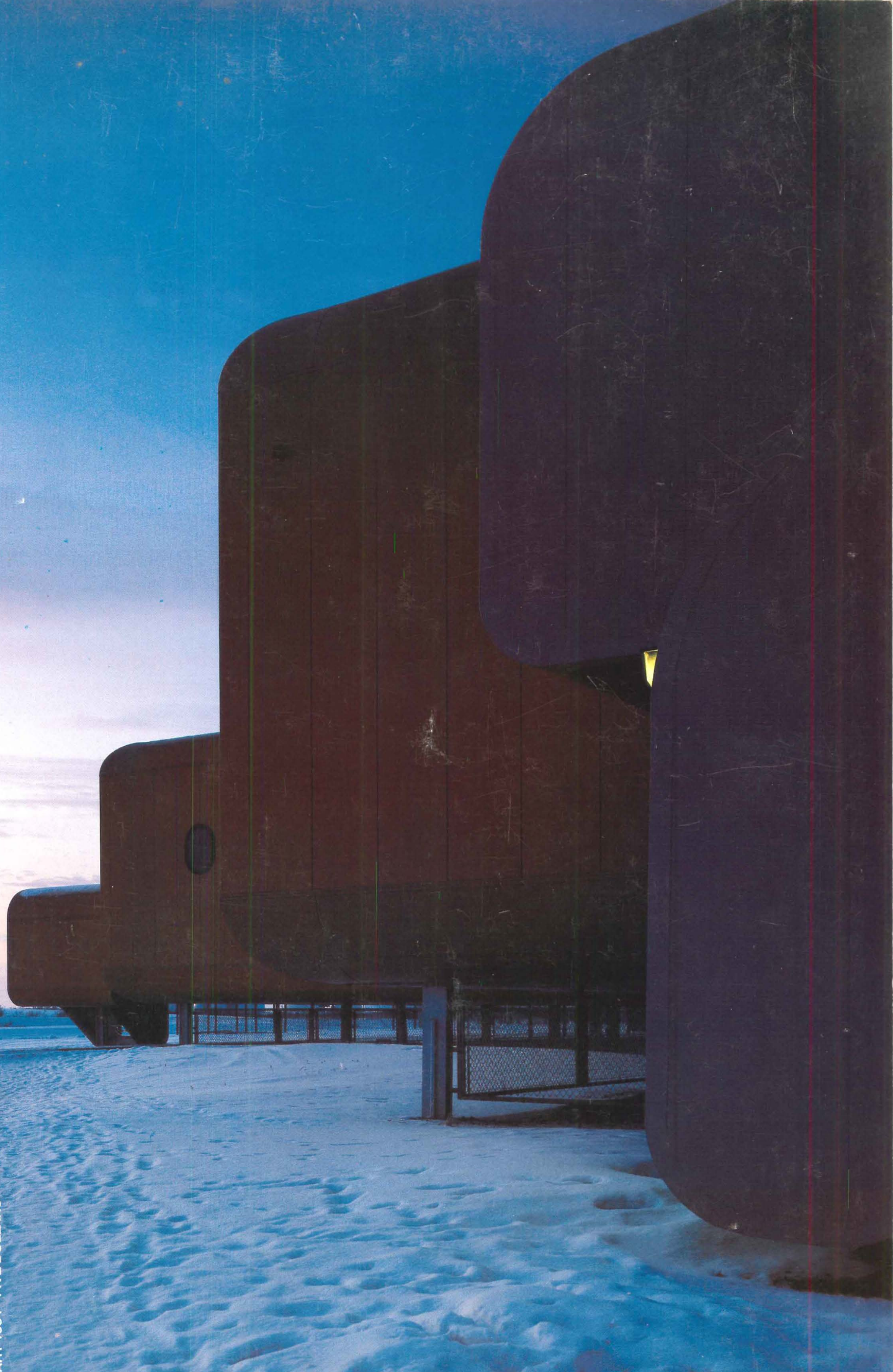


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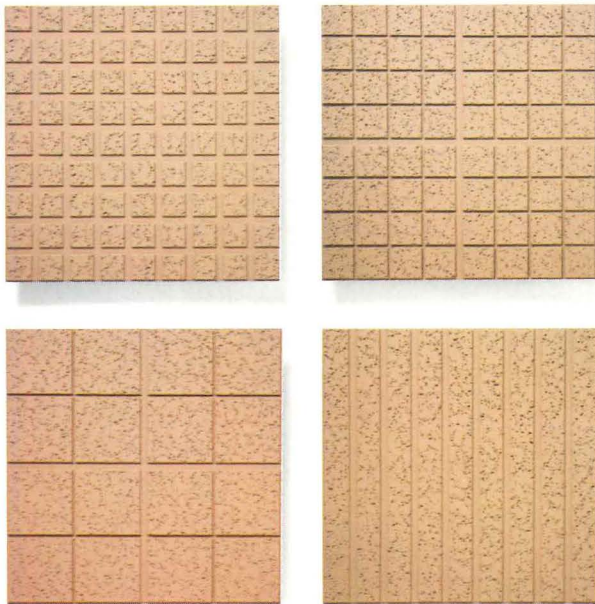
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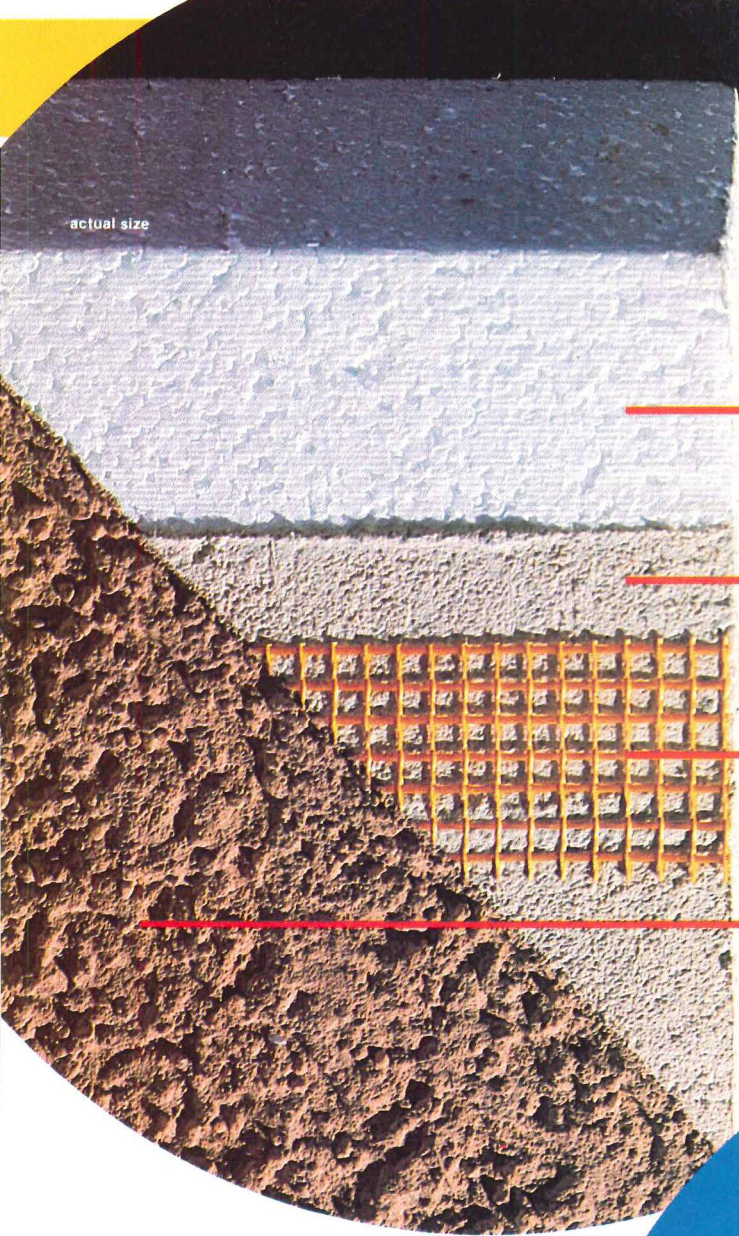
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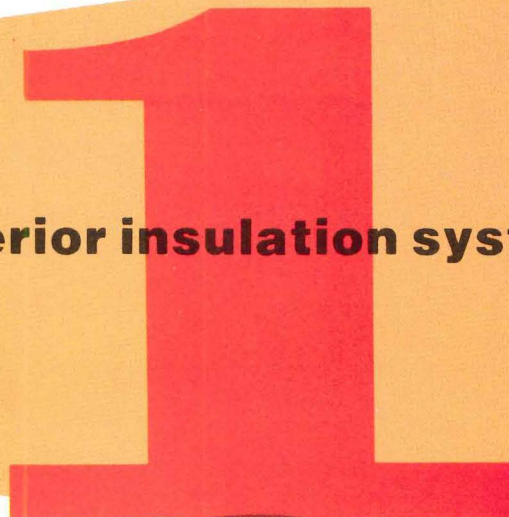
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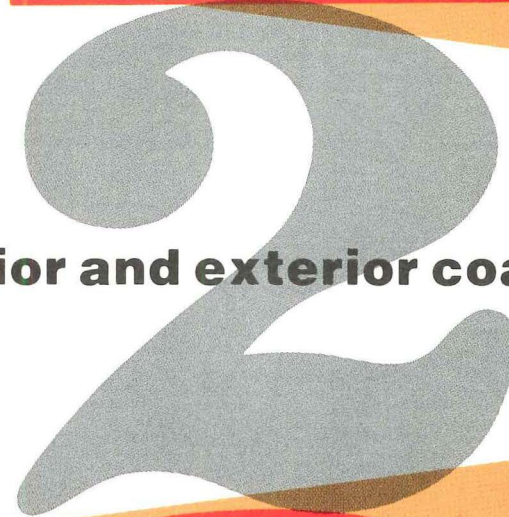
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EVENTS

Jan. 25: Symposium on the Role of the Press/Criticism in Architecture, Museum of Fine Arts, Houston.

Jan. 29-Feb. 1: Annual Meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta. Contact: ASHRAE, 1791 Tullie Circle N.E., Atlanta, Ga. 30329.

Jan. 30-Feb. 2: Program on Revitalizing Downtown: Understanding Real Estate Development, Tampa. Contact: National Main Street Center, National Trust for Historic Preservation, 1785 Massachusetts Ave. N.W., Washington, D.C. 20036.

Feb. 1-4: AIA Grassroots Meeting, Washington, D.C. Contact: Member/Component Affairs Department, at Institute headquarters, (202) 626-7387.

Feb. 6-9: Second International Modal Analysis Conference, Orlando. Contact: Mrs. Rae D'Amelio, Graduate and Continuing Studies Department, Union College, 1 Union Ave. Schenectady, N.Y. 12308.

Feb. 6-10: Course on Effective Project Management for Building Design and Construction, Department of Engineering, University of Wisconsin, Madison.

Feb. 7-10: Infra-Red Scanning Course, Burlington, Vt. (Repeat course, May 15-18.) Contact: The Infrasppection Institute, Hullcrest Drive, Box 2292, Shelburne, Vt. 05482.

Feb. 9-10: AIA Energy in Design: Process Workshop, Hartford, Conn. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Feb. 9-10: AIA Energy in Design: Energy-Conscious Retrofit Workshop, Chicago and Washington, D.C. (Repeat workshops Feb. 10-11, Ames, Iowa; Feb. 23-24, Fort Lauderdale, Fla.) Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Feb. 12-15: Conference on Color and Imaging, Williamsburg, Va. Contact: Dr. Fred W. Billmeyer Jr., Inter-Society Color Council, c/o Department of Chemistry, Rensselaer Polytechnic Institute, Troy, N.Y. 12181.

Feb. 17-18: AIA Energy in Design: Techniques, Santa Barbara, Calif. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Feb. 23: Seminar on Rehabilitation of Concrete and Masonry Buildings, Albany. (Repeat seminars, Mar. 21, Boston; Apr. 11, St. Louis; Apr. 18, Salt Lake City.) Contact: Education Department, American Concrete Institute, P.O. Box 19150, Detroit, Mich. 48219.

Feb. 23-26: Technology Entertainment Design Communications Conference, Monterey, Calif. Contact: T.E.D., 635 Westbourne Drive, Los Angeles, Calif. 90069.

Feb. 26-Mar. 1: World of Concrete Exhibition, Washington, D.C. Contact: Dan

Sladek, Exposition Manager, World of Concrete Center, 426 South Westgate, Addison, Ill. 60101.

May 1-7: Medbuild '84: The International Building Construction and Public Works Exhibition of the Mediterranean, Athens, Greece. Contact: Medbuild '84, 11 Manchester Square, London W1M 5AB, England.

May 5-9: AIA Annual Convention, Phoenix.

May 9-13: Scandinavian Furniture Fair, Copenhagen. Contact: Scandinavian Furniture Fair, Cente Boulevard 5, DK-2300, Copenhagen S, Denmark.

LETTERS

Stanford Buildings: The article on Stanford University architecture in the November issue (page 78) surprised me by the omission of the Hoover Institution complex of three major buildings and two pavilions on the Stanford campus. Architect for the newest group of these buildings, Ernest J. Kump (then of Sprankle, Lynd & Sprague, Palo Alto) created a quiet oasis on campus of an interior courtyard containing a unique brick, undulating fountain. The courtyard and upper levels link the tower, the Herbert Hoover Memorial Building, and the Lou Henry Hoover Building.

The softening effect on the tower's concrete mass through the addition of redwood, plants, and brick can only be implied in a photograph (below). One of the two redwood pavilions houses an exhibit room with custom designed cases, above the institution's world-famous archives. The other pavilion houses a senior commons room for researchers, and below it is a multipurpose auditorium.

The Hoover Institution complex has evolved into a balanced, classical design that contains several hundred offices.

*Rita Ricardo-Campbell
Senior Fellow, Hoover Institution
Stanford, Calif.*



Pei's Search for a 'National' Expression
Apropos the September and November issues of ARCHITECTURE featuring I.M. Pei & Partners' Fragrant Hill Hotel, the following letter to me from I.M., dated January 1946, could be of interest to your readers, I.M.'s friends, and possibly even historians. When I showed it to I.M. a couple of months ago, he nearly fell off his chair and requested copies of it.

*E.G. Roth, FAIA
Clemson, S.C.*

Dear Fritz:

Since a month ago I have been a student again, and, believe me, the life of a student is wonderful! After a few sessions with Gropius, he was good enough to permit me to do a project of my own choosing. As you probably know, for some time I have been wondering about the procedure of searching for a regional or "national" expression in architecture. To my surprise Gropius agrees with me that there is a definite reason for it and that though it will be very difficult, it will come as soon as modern architecture comes of age. My proposed project (not entirely hypothetical) is an art museum for the Shanghai Civic Center. The original structure was damaged beyond repair in 1937 by the Japanese. My problem is to find an architectural expression that will be truly Chinese without any resort to traditional Chinese architectural details and motifs as we know them. So far I have read practically all the books on the subject but they have little to offer. I am relying heavily on the coming sessions with men like Hudnut, Breuer, and Aalto. I hope something will jell soon! . . . Yours, I.M.

Letters continued on page 10

Correction: An editing error skewed the sense of a sentence in Jim Burns' article about Union Square in San Francisco (Nov '83, page 62). It was Skidmore, Owings Merrill that worked with San Francisco Planning Director Allen Jacobs on the design of the Qantas Building.

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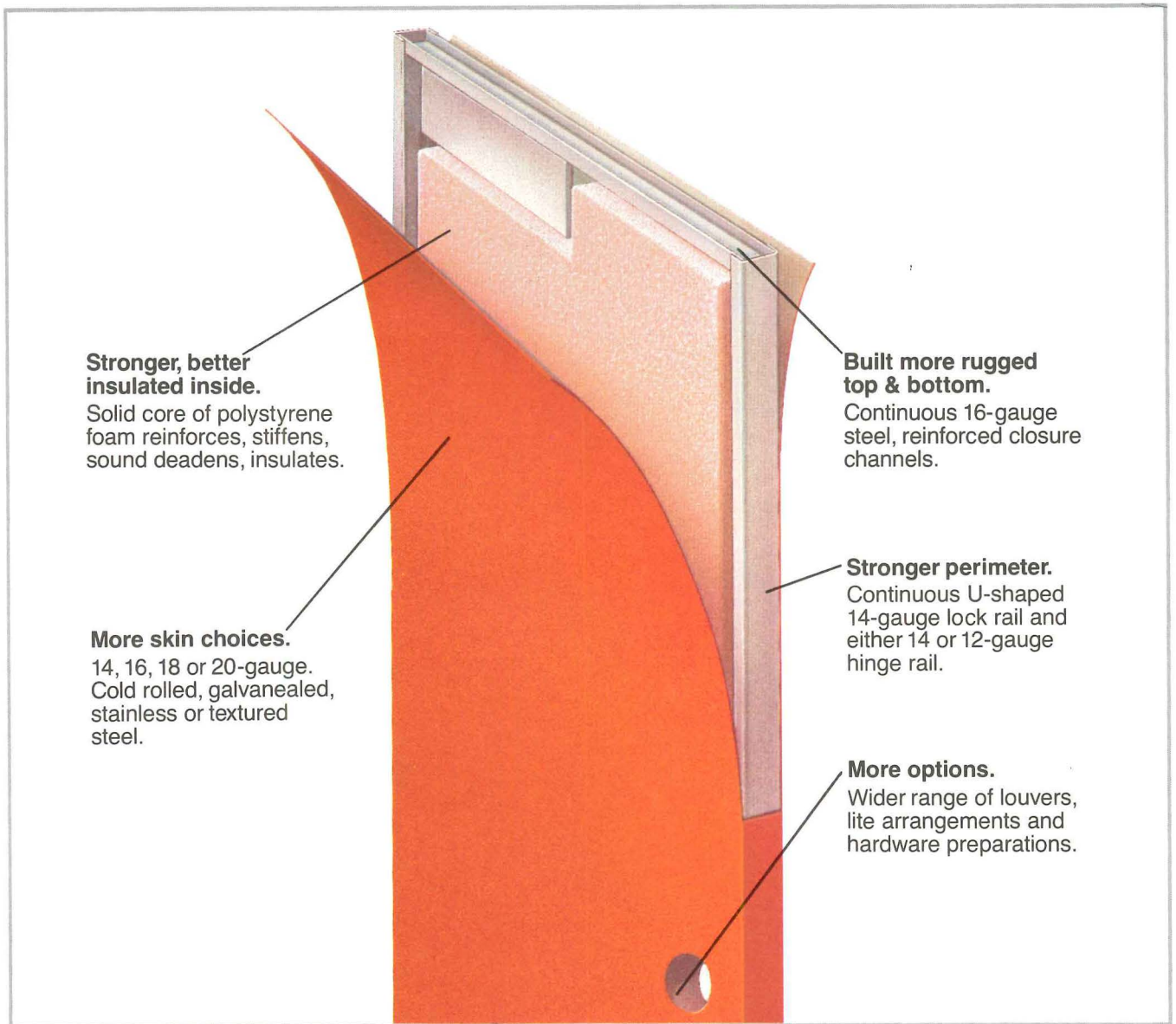
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The Institute

Board Adopts Budget Designed to Implement Direction '80s

At its December meeting in Washington, D.C., the AIA board of directors approved a 1984 budget that is "designed to put into action key elements of the strategic vision and tactical plans" for the institute set forth by Direction '80s. The board also acknowledged the "critical" problem of the declining profitability of architectural practice, and the new officers and board members were installed during the course of the four-day meeting. The \$10.5 million budget allocations reflect a shift in emphasis—a decentralization of some AIA activities from Washington to regional, state, and local committees. The AIA national staff will be reduced by 16 percent. At the same time components, with Institute help, will be added to take more responsibility in such areas as educational and professional development, government affairs, public relations, and AIA committee work. In accepting the economies and compensation task force report and asking the practice commission to set priorities, the AIA board acknowledged that a serious compensation problem exists and "continue to worsen in the future, if effective counter measures are not developed immediately." Appointed last June to identify the long-range economic climate for architects, the task force found several critical factors" that have "impeded the ability of architects to maintain an economically sound position." Among them are continued declining profitability, compensation that is failing to keep pace with inflation and with that of other professionals, and a gradual decline in demand for architects' services. In other business, the board adopted several new public policies, four of which concern land use—the policies on wilderness, forest management, prime agricultural land, and surface mining. With the adoption of the public policy on wilderness, AIA "supports the National Wilderness Preservation System," which was established by the Wilderness Act of 1964, and "advocates the designation of additional land as wilderness," particularly land that will "perpetuate natural systems that are substantially unaltered by human beings."

AIA also supports designation of "wilderness in each region of our nation," because each has "important ecological resources." Therefore, regional planning is "essential. . . . Successful planning of wilderness preservation for future generations will require a continuous search for areas with unique ecological or scenic features and of sufficient size to provide protection from external impact," says the policy statement.

The comprehensive forest management policy reflects a concern for a future supply of lumber for construction at "reasonable" prices and calls for the protection and enhancement of forest lands, both private and public. Through the policy AIA recommends that "federal, state, and local government increase efforts and incentive programs to obtain a greater production of timber from private nonindustry commercial forests." It is these forests, AIA believes, that will have the greatest potential for increasing the supply of lumber and pulpwood products.

The prime agricultural land policy states that "protecting agricultural land from its conversion for nonagricultural uses should be a priority of the nation's lawmakers and design professionals."

The National Agricultural Lands Study estimates that each year three million acres of farmland are converted to non-

agricultural uses, and an additional three million acres are lost to soil erosion. In addition, the federal government has over the years encouraged the development of farm lands for suburban growth, energy production, and waste facilities. Therefore the Institute "supports a federal policy to coordinate government activities that affect the use of agricultural land."

The final land-use policy states that AIA "supports the general direction of the Surface Mining Control and Reclamation Act of 1977." AIA also recommends that "architects be involved in the planning and analysis of surface mining as it relates to land use and the environment" and requests that "adequate funds be appropriated by the federal government to aid the states in the reclamation of 'orphan' lands that have been strip mined and abandoned and now lack owners to take reclamation responsibility."

AIA's concern with surface mining is based on the fact that its effects can be on a "localized scale as well as on a vast regional basis. Uncontrolled byproducts of surface mining can cause erosion, devastate existing aquifers, and inject toxic substances into streams that will have a destructive influence on natural systems downstream."

The nonenvironmental policy that was adopted by the board covers architecture for health, saying that AIA's goal is to "achieve excellence and appropriateness of health care environments." AIA "advocates a comprehensive and nationally integrated approach to planning for health care delivery systems, services, and facilities; recognizes the need to contain the growth of health care costs but opposes any arbitrary limit or moratorium on capital expenditures for construction or the imposition of arbitrary standards to achieve costs control; advocates rational and coordinated regulation and supports continuance of the voluntary system for accreditation and uniformity of standards among the governmental and regulatory agencies of all levels; and advocates the involvement of architects in all aspects of health planning."

Also in the public policy area, the board took the following actions:

- approved an updated policy of the environmental aspects of the practice of architecture.
- reaffirmed the art-in-architecture and the urban growth policies.

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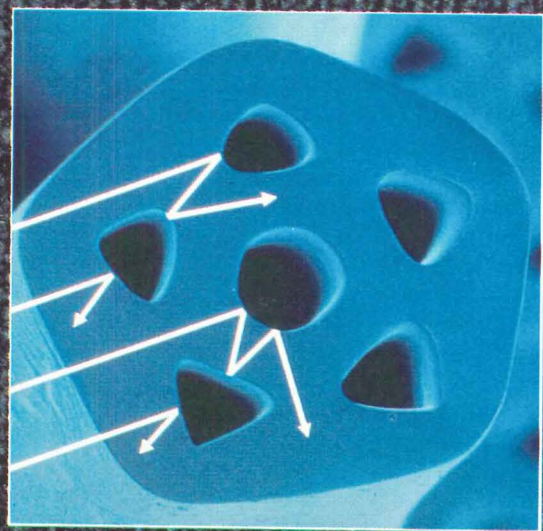
Unless otherwise indicated, the news is gathered and written by Allen Freeman, Nora Richter Greer, Michael J. Crosbie, and Lynn Nesmith.

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Institute from page 9

improved the international practice public policy, which consolidates the international practice and international tax re- on policies.

improved amended policies on govern- nt procurement and federal design ellence.

inserted the policies on urban re- lding, architecture for recreation, envi- mental laws and regulations, and seis- : education and research.

at the meeting the board also appro- ated from the corporate reserves ,000 to restore the Octagon, \$100,000 implementaton of the AIA Founda- 's public membership program, and 0,000 for WETA-TV's series on ar- chitecture.

New officers were installed Dec. 9. Join- the new president, George M. Notter, FAIA, is R. Bruce Patty, FAIA, first vice sident, Gaines B. Hall, FAIA, Theo- re F. Mariani, FAIA, and Robert J. u Dohlen, FAIA, as vice presidents. rry Harmon, FAIA, and Henry W. airmer, FAIA, stay on respectively as retary and treasurer.

New board members installed are, by ion: Paul R. Neel, AIA, and Robert Odermatt, FAIA, California; William Herrin Jr., AIA, Gulf States; Almon Durkee, FAIA, Michigan; Leon Bridges, A, Middle Atlantic; G. W. Terry Ran- e, FAIA, New England; Kenneth D. eeler, FAIA, New Jersey; Raymond oulder Jr., AIA, Northwest; Raymond stainback Jr., FAIA, South Atlantic; d Allen McCree, AIA, Texas. Susan mberg is the new public director and dra M. Stickney the new chairman of Council of Architectural Component ecutives.

President, Notter Plans Public Awareness Program

George M. Notter Jr., FAIA, could have y one wish come true during his year AIA's president it would be that the blic learned of the infinite potential architecture to enrich the life of man." s not surprising then that the theme this year is "American Architecture d Its Public" and that many special titude activities will be directed to ing public awareness of architecture. We are going to show the entire nation at we mean by good design," Notter s. "We are going to explain what it a mean in their lives. And by involving m in what we do, we are going to vince them of all that architects can to realize America's full potential as a ce to live and work."

Notter believes that there is already a blic appreciation of architecture, which credits in large part to the preserva- n movement. But he is convinced more



can be done. "Gone are the days when architects and their clients decided what the form and function of buildings would be, and then presented them to the public to admire. Today the built environ- ment is being changed by public needs and public tastes. . . . We [architects] are guided by the understanding that in the end, the very real basic decisions about how our cities are going to look, and whether they will work, should be made by the people who are going to live in them." Notter hopes that the outcome of a better public/architect dialogue will be "the growth of a truly American archi- tecture," and a "commitment to design excellence and quality of life."

Notter has asked AIA components to sponsor architectural events that will involve architects and people outside the profession. "This will help the public understand what people want and expect in the built environment," he says. Notter himself will try to promote interest in and understanding of architecture by talking with the editorial boards of the major newspapers in each city he visits. Other activities planned are monthly forums at Institute headquarters at which prominent public figures—from Congress, the Ad- ministration, and the media—will dis- cuss public policy issues affecting archi- tecture. And Notter will present presiden- tial citations to individuals and groups who have "distinguished themselves by their concern for the quality of the built environment of their communities" and who have "heightened public awareness of the issues."

The AIA Foundation's public member- ship program is viewed by Notter as being "most important and the centerpiece" for the year's theme. Membership will be offered to "all who share our goal of a quality built environment and our belief in the central role of architecture in the nation's future." The hope is for 1,000 members this year; 100,000 in 10 years.

While Notter will be dedicating much of his time this year to outreach, it was a practice issue that first got him in- volved in AIA on the national level—

revisions in fee schedules. Since then he has been president of the Boston Society of Architects and the Massachusetts State Association of Architects, director of the New England Regional Council, commis- sioner of design on the practice and design commission, and chairman of the life safety design task force. He repre- sented the New England region on the AIA board and served on the finance and long-range planning committees and on the board of Production Systems for Architects and Engineers.

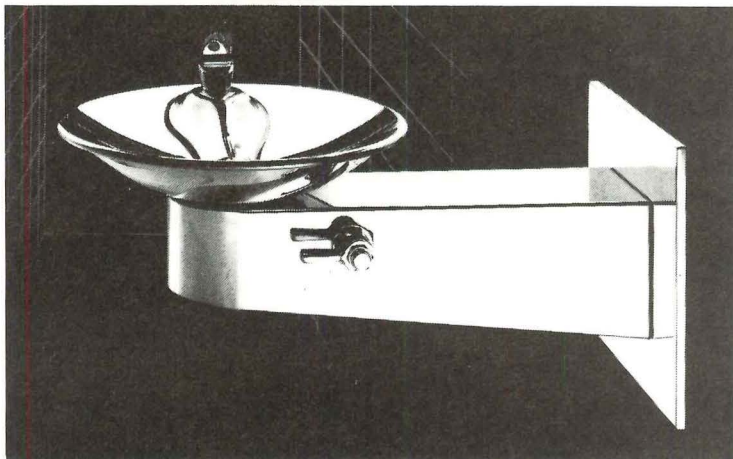
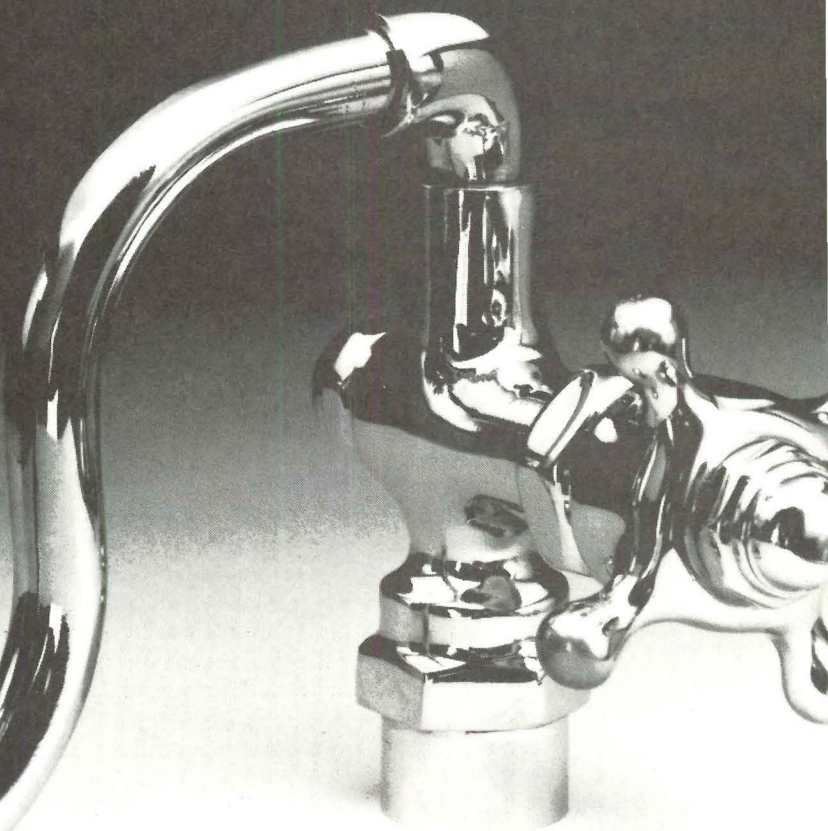
Notter received a B.A. and a M.Arch. from Harvard and is founding principal and now president and director of design of Anderson Notter Finegold Inc., Bos- ton and Washington, D.C. The firm spe- cializes in revitalization planning for urban areas, designing new structures compati- ble with historic environments, and recycl- ing historic buildings. It has received three AIA honor awards for extended use and eight AIA regional design awards.

Ten to Receive Honorary AIA Membership in May

AIA has named eight men and two women honorary members of the Insti- tute. Chosen for their "distinguished con- tributions to the architectural profession or its allied arts and sciences," the indi- viduals will receive membership at AIA's annual convention in May. They are:

- Kathleen Davis, executive director of the Orange County Chapter/AIA and past director of the AIA Press's publications marketing/sales;
 - James Marston Fitch, preservationist, teacher, and author, who is considered the father of formal historic preservation education and who founded the first such program in America at Columbia Univer- sity 20 years ago;
 - Mildred Friedman, design curator at the Walker Art Center in Minneapolis and editor of *Design Quarterly*, an inter- national magazine for architecture, graphic design, and design theory;
 - Gerald D. Hines, a Houston-based devel- oper among whose projects are Johnson/ Burgee's Pennzoil Place and Hellmuth, Obata & Kassabaum's Galleria, both in Houston;
 - Lee Edward Koppelman, executive director of the Long Island regional plan- ning board, New York's Suffolk County planning commission, and a member of the Long Island area development agency;
 - U.S. Senator Daniel Patrick Moynihan (D.-N.Y.), author and chief sponsor of the Public Buildings Act of 1979, who has also been involved in the revitali- zation of Washington's Pennsylvania Avenue;
 - Michael J. Pittas, director of the design arts program at the National Endowment for the Arts;
- continued on page 16*

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The Institute from page 13

- John P. Robin, chairman of Pittsburgh's urban redevelopment authority, the first such agency in the U.S., established in 1947, who served as its first executive director;
- Leon R. Strauss, founder and head of the Pantheon Corporation, a St. Louis development firm whose projects include housing, cultural facilities, and commercial development, both new and restored;
- U.S. Representative Sidney R. Yates (D.-Ill.), now serving his 17th term in Congress, who has been instrumental in securing the federal grants program for historic preservation and increased funding for the National Endowment for the Arts and the National Foundation on the Arts and Humanities.

The jurors were Jules Gregory, FAIA, (chairman), Jay W. Barnes, FAIA, and George T. Rockrise, FAIA.

AIA Regional Reports Show A Mixed Economic Recovery

The economic climate for architects is mixed throughout the country, according to year-end AIA regional reports: Some regions are experiencing moderate recoveries, some continued sluggishness, others vigorous activity. Generally, there is prevailing optimism for 1984.

Regions reporting the healthiest economies are Texas, California, Florida/Caribbean, and Michigan. California is "experiencing major construction activity," due to the expanding electronics and aerospace industries and increased commercial activity. However, competition for work in that state is "fierce." Florida reports an "excellent development climate," spurred by the successes of large, high-tech corporations, but says that the state is experiencing more orderly growth. Michigan finds "most firms smaller, leaner, more productive," and, consequently, more healthy.

One region that is lagging behind in recovery is Pennsylvania, and the situation is most severe in the western part of the state. Throughout Pennsylvania manufacturing activity is slow, with no substantial increase and no overall recovery in sight.

Most other regions report erratic conditions. For example, the Central Region, which is made up of five states, reports that "specific areas have experienced good economic conditions, while others have experienced static or poor conditions." While activity is "experiencing an upward trend" in St. Louis and Kansas City, Oklahoma is having its lowest activity in 10 years. In the Gulf region, the New Orleans area seems to be the healthiest, with Mississippi having the "worst condition economically." Alabama, Arkansas, and Tennessee report they "are barely hold-

ing their own." In Illinois the medium to larger firms in large metropolitan areas are generally much healthier than the small firms located in less populous areas.

The Middle Atlantic region reports "meager pickings for most architects, with some pockets of activity," particularly the Washington, D.C., area. New England says conditions are "dependent upon the type of project and the area of construction." Ohio reports that the "economy is turning quite healthy in some areas and remaining quite strained in others."

Four areas seem to be in the middle of a moderate to strong rebound. The North Central region reports, "We are by no means back to the pre-recession economy, but most firms have work and are relatively enthusiastic about prospects in '84." New Jersey and the East Central and Western Mountain regions concur. New Jersey reports that the economy is still uncertain, but that the "decline in interest rates has started to help." This year is expected to be healthier. "Following the slow years of '81 and '82, there has begun a long, slow rebound during '83," reports the East Central. Reports the Western Mountain, "The year started out slowly but seems to have gained momentum in the third and fourth quarters. Firms in the region are generally optimistic and looking forward to slow but continued economic growth through early '84."

Issues of importance, other than economics, as related through the regional reports, are professional liability, competitive bidding for professional services, registration laws, state A/E procurement policies, and sales taxes on architectural services. Many regions expressed an increased interest in architecture by the public.

Awards

Six Buildings Recognized For Energy Conservation

Owens-Corning Fiberglas Corporation has presented six awards for "significant contributions" to energy conservation in government, institutional, industrial, and commercial buildings in its 12th annual awards program.

Burnstudio Architects of Raleigh, N.C., is the winner in the government category for the Chatham County Social Services Building, Pittsboro, N.C. Designed to blend with the neighboring farm structures, the facility resembles a large farm shed with its gabled 22-foot-high, standing-seam roof. In the 9,600-square-foot building 40 individual offices line both sides of the long, central corridor. Each office has residential-type heat pumps, operable

Energy in Architecture Gains Two New Workshops

AIA has added two workshops to its energy in architecture professional development program. The program, providing workshops at levels of increasing proficiency, is designed to give architects the expertise needed to reduce energy consumption in buildings.

Energy-conscious redesign, a one-and-a-half-day workshop, examines the redesign and retrofit of existing buildings to increase energy efficiency and improve the condition of the structure. Workshops will include either a "client" conference and a visit to an actual building site or an examination of a sample building package. Participants will then redesign the buildings to be energy efficient. Workshops are scheduled Feb. 9-10, Chicago and Washington, D.C.; Feb. 10-11, Ames, Iowa; and March 22-23, Hartford, Conn.

Microcomputer-based energy analysis, an advanced one-day workshop, demonstrates procedures for computerizing manual techniques taught in the less advanced workshops. The seminar will include hands-on microcomputer instruction. The workshop will be held in Boston and Dallas on March 9 and in Chicago on March 29 and 30.

The other workshops (process, techniques, and practice) examine the basic principles of energy-conscious design; design fundamentals, techniques, and conditions; a suggested design process; and an actual design problem keyed to a climate region. For more information, contact Brenda Henderson, director of professional development seminars, at Institute headquarters, (202) 626-7353.

windows, and ventilation fans. There is a central atrium as well as skylights, interior courtyards, and extensive southern exposure.

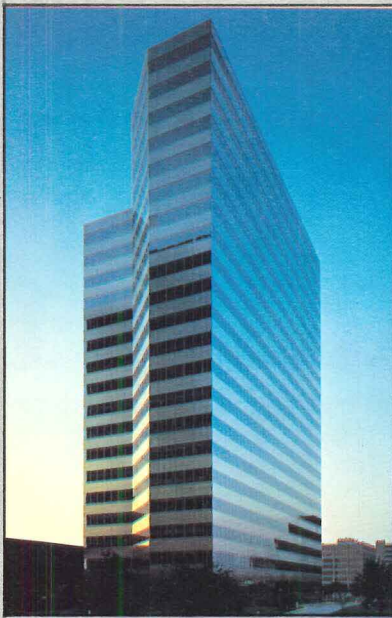
Lawrence W. Speck Associates, Austin, Tex., is the winner in the government design category for the Burnet Civic Center in Burnet, Tex. The complex will use passive and natural cooling methods to reduce the heavy cooling load required by the Texas climate. In addition, tree lining the east side will provide shading and a deep arcade will shelter the south side from direct sun. City hall and council chambers line the north exposure, and the recreation center will stretch along

continued on page

Texas Commerce Tower—Architect: I. M. Pei & 3D/International Photo: Wes Thompson



3D/International: Architect: 3D/International Photo: Wes Thompson



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Ensereth Office Bldg.—Architect: Lloyd, Jones, Brewer Photo: Wes Thompson



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NOMA Awards to Four

The National Organization of Minority Architects has honored four buildings in its 1983 design awards competition.

Three design excellence awards were presented to:

- Charles F. McAfee, FAIA, of Wichita, Kan., for the McKnight Art Center at the Edwin A. Ulrich Museum of Art, Wichita State University. The facility is divided into two structures joined by glass enclosed bridges at the second and third levels. The 30,000-square-foot west building has a student and faculty studio built around a full-height interior courtyard with skylights. The east section, directly adjacent to the existing building, provides administrative office space and a 6,000-

square-foot public art museum.

- Wendell Campbell Associates, Chicago, for the Genesis Convention Center, Gary, Ind. The multipurpose facility has an arena for sporting events, concerts and conventions, an exhibition hall, 11 meeting rooms, and administrative office space. The four corners are anchored by service core towers with toilet facilities, stairways, mechanical rooms, and service functions. The main arena can accommodate concerts, basketball games, or exhibits.

- The Leon Bridges Co., Baltimore, for renovation of the Baltimore Pennsylvania station. In the preservation of the station the functions were reorganized and directional signage and accessibility for the handicapped were improved. The original

ironwork is used throughout the building as railings, elevator enclosures, etc.

The Leonard F. Sain Auditorium and Performing Arts addition, Kettering Senior High School, Detroit, designed by Roy Margerum Architects, Detroit, was presented a design citation. The new wing includes a 1,200-seat auditorium, dressing rooms, a dining hall, music classroom and a rifle range.

Air Force Honors 16

Sixteen projects were selected in the eight annual design awards program sponsored by the U.S. Air Force in cooperation with AIA and the Society of American Military Engineers.

Completed buildings selected to receive honor awards are a dormitory at Loring Air Force Base, Maine, Air Force Base by Ellenzweig Moore & Associates, Cambridge, Mass.; and a commissary at the Los Angeles Air Station by Leidenfrost/Horowitz Associates, Taluca Lake, Calif. Also being honored is the Base Architectural Compatibility Program by the Tactical Air Command at Langley Air Force Base,

Merit award winners in the completed structure category are a hangar at Offutt Air Force Base, Neb., by Burns & McDonnell, Kansas City, Mo.; a dormitory alteration at Kelly Air Force Base, Tex., by Richard Armstrong, San Antonio, Tex.; the Wilford Hall Medical Center Total Energy Plant at Lackland Air Force Base, Tex., by Benham Blair & Associates and Page Southerland Page, Oklahoma City, Okla.; a filling station and base exchange at Eglin Air Force Base, Fla., by the Bullock Associates, Pensacola, Fla.; and a library expansion at the Air Force Academy, Colorado Springs, Colo. by Henningson, Durham & Richardson, Denver.

The Chapel Center at Lackland Air Force Base, Tex., designed by V. Aubrey Hallum, Fort Worth, Tex., received an honor award for "project concept." Merit award winners in the "project concept" category are a dining facility at Andrews Air Force Base, Md., by Cooper-Leck Partnership, Washington, D.C.; the Medical Training and Dining Facility at the Nashville Metro Airport by Bayer Edgemoor Inc. and Gould Turner Group, both of Nashville; and the fire station at the McGhee-Tyson Airport, Knoxville, Tenn. by Barber & McMurry, Knoxville.

"Project concepts" receiving citation awards were a lodging facility at Bolling Air Force Base, Washington, D.C., by Cohen-Karydas & Associates, Washington, D.C.; a lodging facility at Hanscom Air Force Base, Mass., by R. Wendell Phillips Associates, Boston; a dormitory conversion project at F.E. Warren Air Force Base, Wyo., by the Davis Partnership, Denver; and a visiting officers quarters

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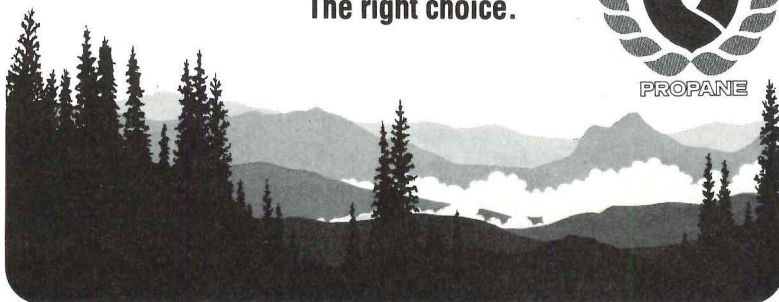
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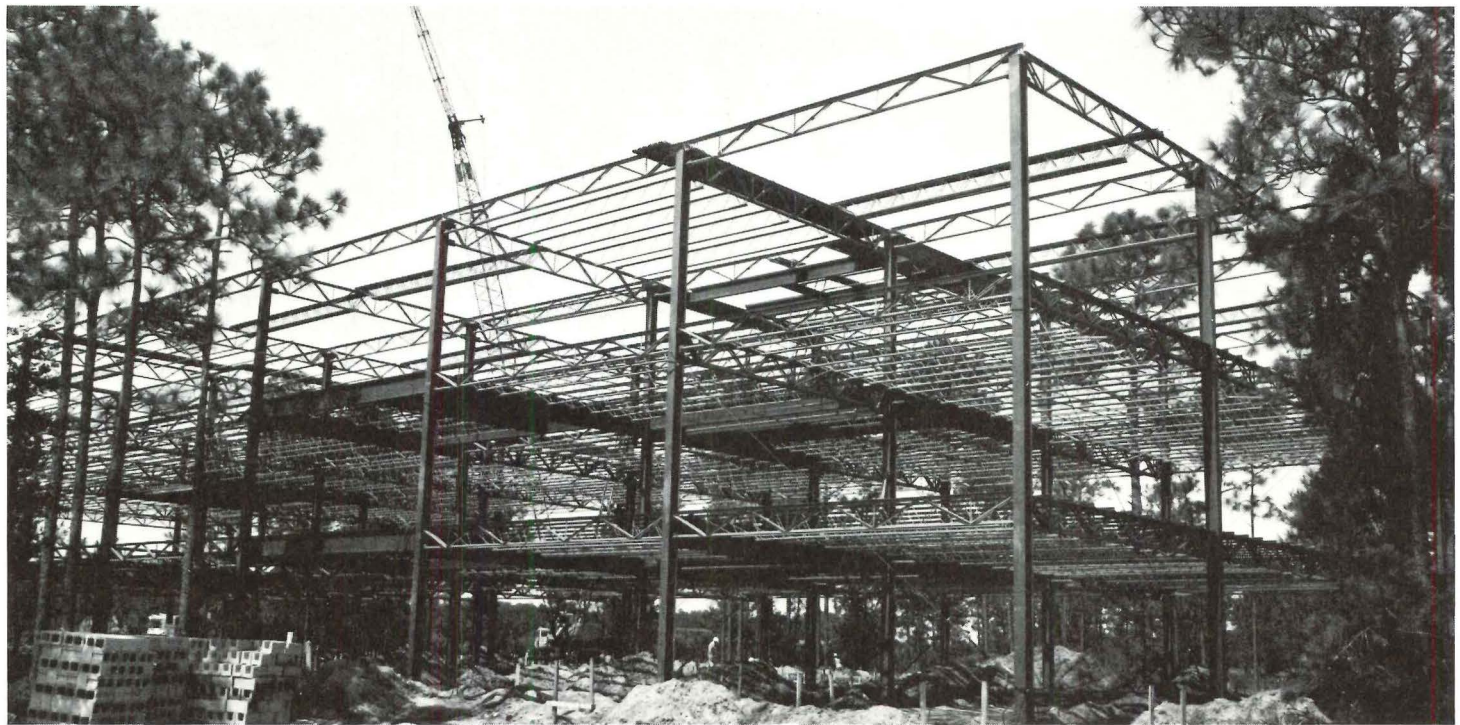
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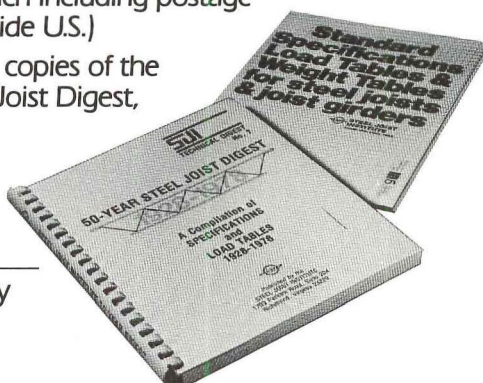
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As Project Director for Seattle's new 28-story, 575-room Madison Hotel, Denny Onslow of the R.C. Hedreen Company needed to select a heating and cooling system. He wanted a self-contained system with zonal flexibility, a system that was energy efficient, practical to install and aesthetically pleasing. He knew that a standard packaged terminal heat pump would meet the first two requirements.

However, although standard heat pumps are often specified for single and even some multi-story projects, they present a problem that has plagued high-rise construction for years—winter condensate. In the past, the problem could only be solved by installing an expensive interior drain system or an unattractive exterior system to handle condensate runoff.

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service, Denny Onslow selected the Zoneline IV with ICR for The Madison Hotel • Seattle.

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Awards from page 30

at Vandenberg Air Force Base, Calif.,
by Schoenwald-Norwood-House-Oba,
Fresno, Calif.

The jurors were R. Bruce Patty, FAIA,
and J. Peter Winkelstein, FAIA, and engi-
neers Michael Brooks and Donald Noon.

Atlanta Buildings Honored

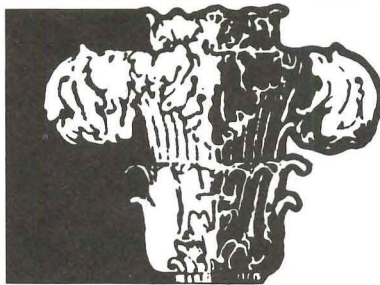
Two Atlanta buildings, the AT&T Long-
lines regional headquarters by Thompson,
Ventulett, Stainback & Associates and
the Communications Workers of America
headquarters by Muldawer/Moultrie, have
received energy design awards sponsored
by the Georgia Association/AIA, Georgia
Power Co., and the AIA Foundation.

The 440,000-square-foot AT&T Long-
lines building, located on Peachtree Street
near the new High Museum, is sited to
allow maximum control of direct solar
gain and employs passive and hybrid en-
ergy systems. These include sun control
devices and reduced glass areas on the
south elevation, office floors that mini-
mize the depth of office areas from win-
dow walls, a computerized, photo cell
control system that mixes natural and ar-
tificial light, and a heat recovery system
from lights, computers, office machines,
and operations equipment.

Natural lighting is the principal energy
feature of the 17,000-square-foot com-
munications building, located in a suburban
setting in east Atlanta. South-facing win-
dow walls and a long atrium extending
the entire east-west length of the build-
ing bring sunlight into all office spaces.
South-facing glass is shaded by perma-
nently fixed eyebrow sunscreens set for
the summer angle. Cross ventilation is
achieved through a continuous row of trans-
oms above the atrium's glass exposures.
Fans mounted high on the light scoops
help to draw fresh air through the offices.
The north, east, and west exposures are
faced with a panel containing six inches
of fiber glass wall insulation.

The awards are part of an ongoing co-
operative project between the Georgia
Association and the Georgia Power Co.
to encourage energy-conscious design.
Earlier, Georgia architects and the utility
company's field personnel were surveyed
in order to identify architects' problems
when providing energy-conscious design.
It was found that clients are unaware of
the benefits of good energy design and
are unwilling to pay for energy-conscious
design services. Those surveyed also
ranked high the need for simplified en-
ergy analysis tools and data. The design
awards addressed the problem with clients
and required actual energy use data in
submissions, which will be made available
to local designers. AIA Foundation says
it is interested in developing similar pro-
jects with other AIA chapters and utilities.

News continued on page 40



Minnesota History Center Competition

The Design Challenge

The State of Minnesota, the Capitol Area Architectural and Planning Board, and the Minnesota Historical Society announce a national competition for the design of the new Minnesota State History Center. To be located in the Minnesota State Capitol Area, this project presents a major design challenge. The winning design must incorporate the existing 1917 Historical Society Building with new facilities on the adjacent site immediately to the east. The project includes renovation of 100,000 GSF and 350,000 GSF of new construction. The new History Center must enhance the architectural character and quality of the Capitol Area.

The Competition

The requirements for the submission of credentials will be sent to all registrants. Upon evaluation of all credentials submitted, the Competition Designer Selection Panel will select six firms or teams as finalists, who will be invited to prepare design submissions. The competition jury will select the winning design from the submissions of the finalists.

Compensation and Awards

Each finalist will be provided \$12,500 to prepare its submission; \$5,000 at inception and \$7,500 upon acceptance of the submission. The winner of the competition will be awarded a prize of \$50,000. Upon funding of the project by the Minnesota State Legislature, the winner would be designated the Architect for the project and the prize money would be considered an advance payment on the commission to be awarded.

Designer Selection Panel

The Competition Designer Selection Panel will be chaired by the Professional Advisor to the Competition and will consist of the following members: William Sanders, A.S.L.A., Valerius Michaelson, F.A.I.A., Advisors to the Capitol Area Architectural and Planning Board; and the following State Officers or their designees: the Chair of the State Designer Selection Board, the Chair of the Capitol Area Architectural and Planning Board, the President and the Director of the Minnesota Historical Society, and the Commissioner of Administration.

Eligibility

Initial registration is open to any firm or team which includes personnel with NCARB certification or architectural registration in Minnesota, and with principal offices in the United States. Eligibility is limited to firms that have a record of gross receipts for architectural services of at least \$300,000 per year for each of the last three years. For teams, this requirement must be met by the lead firm. Inquiries regarding eligibility should be submitted by letter to the Professional Advisor at the address provided for registration.

The Jury

Members of the Competition Jury will be:

ROBERT L. GEDDES, F.A.I.A.
*Geddes Brecher Qualls Cunningham:
Architects. Kenan Professor, School of
Architecture, Princeton University*

DONLYN LYNDON, F.A.I.A.
*Lyndon/Buchanan Associates.
Professor, School of Architecture,
University of California, Berkeley*

ELIZABETH CLOSE, F.A.I.A.
*Close Associates
Minneapolis, Minnesota*

HIDEO SASAKI, A.S.L.A.
Landscape Architect

DR. JAMES MARSTON FITCH
*Architectural Historian
Professor Emeritus
Columbia University
New York, New York*

PRESIDENT,
Minnesota Historical Society

CHAIR,
*Capitol Area Architectural and
Planning Board*

Member of the SENATE,
Minnesota State Legislature

Member of the HOUSE,
Minnesota State Legislature

Professional Advisor

JOHN G. RAUMA, F.A.I.A.
*Griswold and Rauma, Architects
Minneapolis, Minnesota*

Competition Schedule

February 17, 1984	— Registration Due
March 16, 1984	— Credentials Submission Due
April 2, 1984	— Finalist Selection
April 9, 1984	— Finalist Site Visit and Orientation Session Design Framework Data and Architectural Program Issued
May 16, 1984	— Question Period Closes
July 16, 1984	— Design Submissions Due
July 25, 1984	— Jury Award and Recommendation

Registration

Registration will be by letter, accom-
panied by a check in the amount of
\$50 made payable to The Minnesota
History Center Competition. Registra-
tions should be addressed to:

Minnesota History Center Competition
Capitol Area Architectural and
Planning Board
Room 122, Capitol Building
St. Paul, Minnesota 55155

Double (or triple) glazing.

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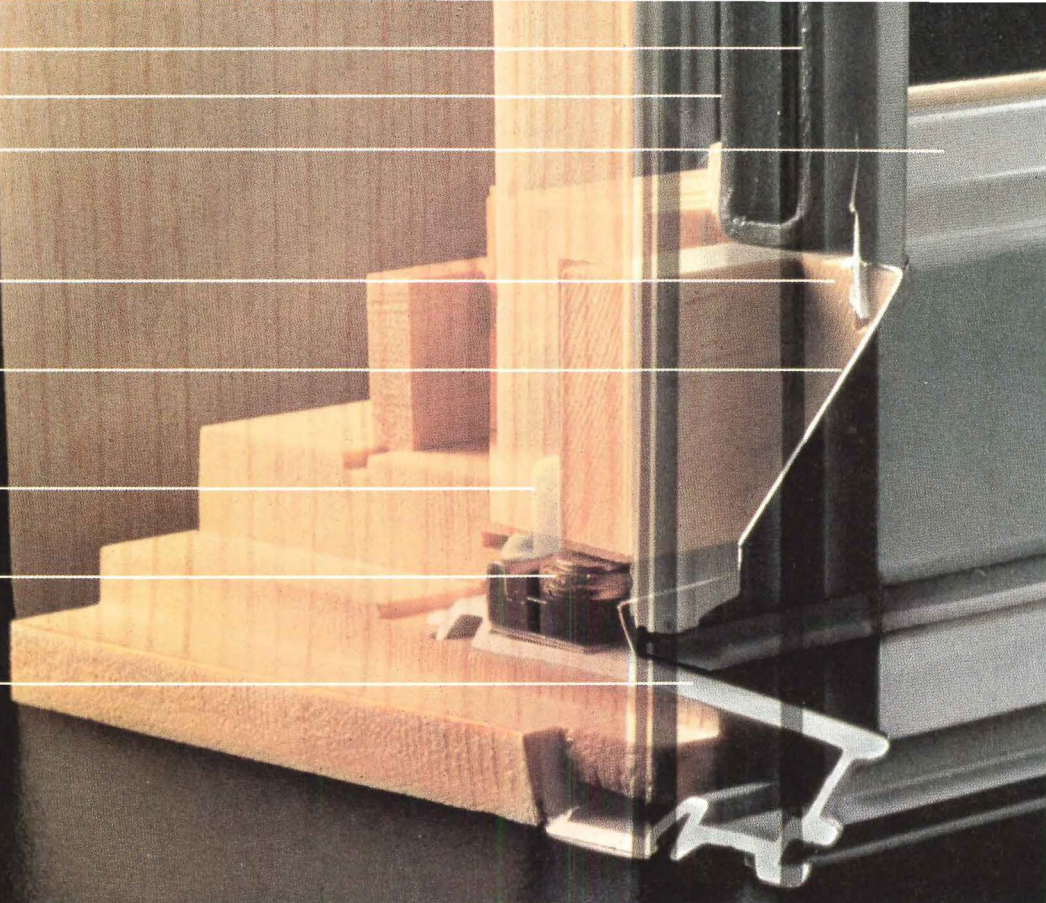
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Marv-A-Gard maintenance-free exterior.

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Concealed stainless steel hinge.

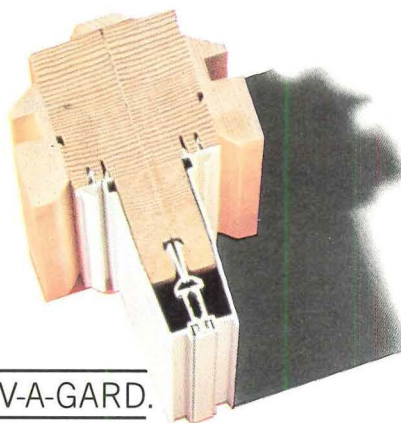
Marv-A-Gard maintenance-free exterior.



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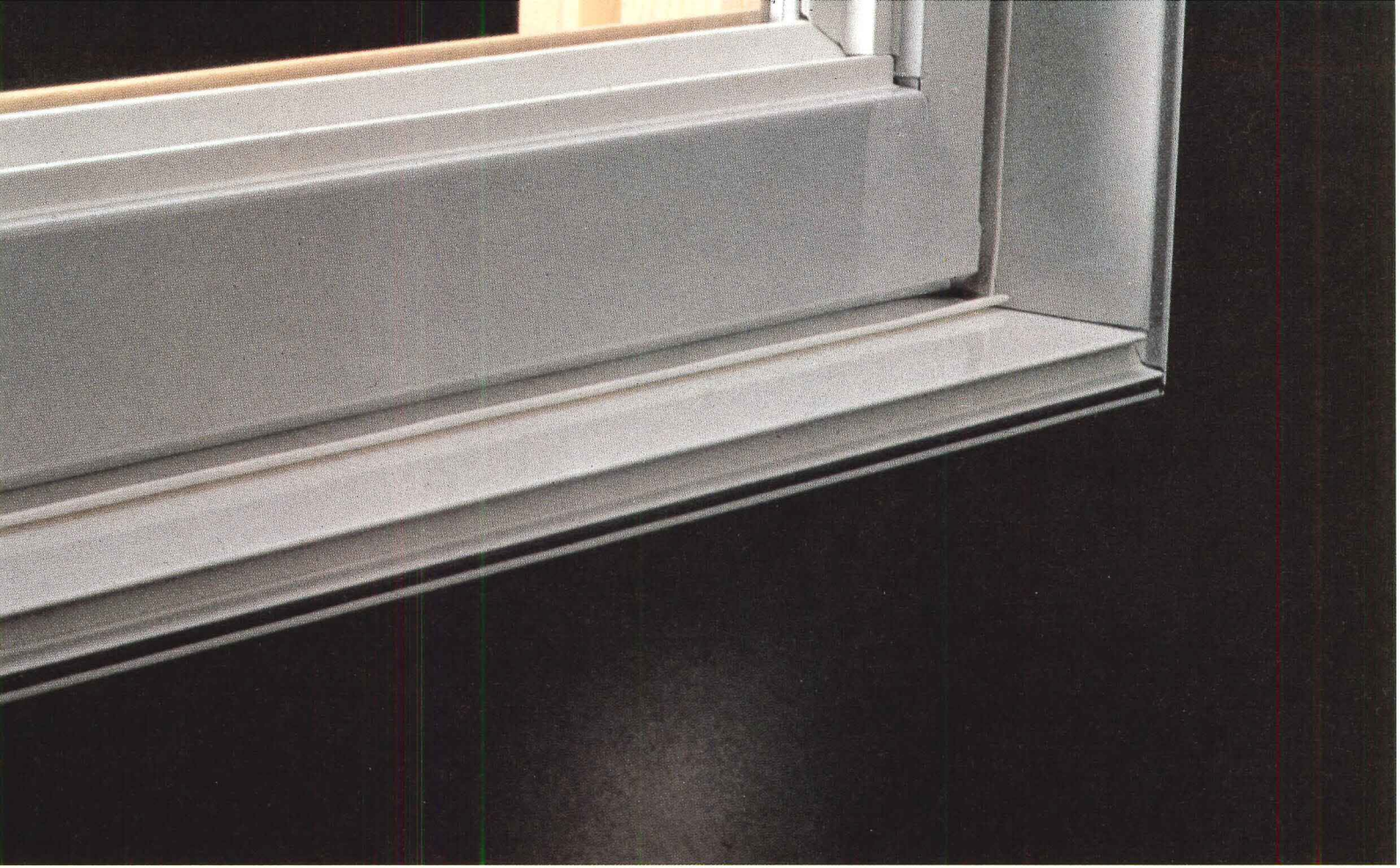
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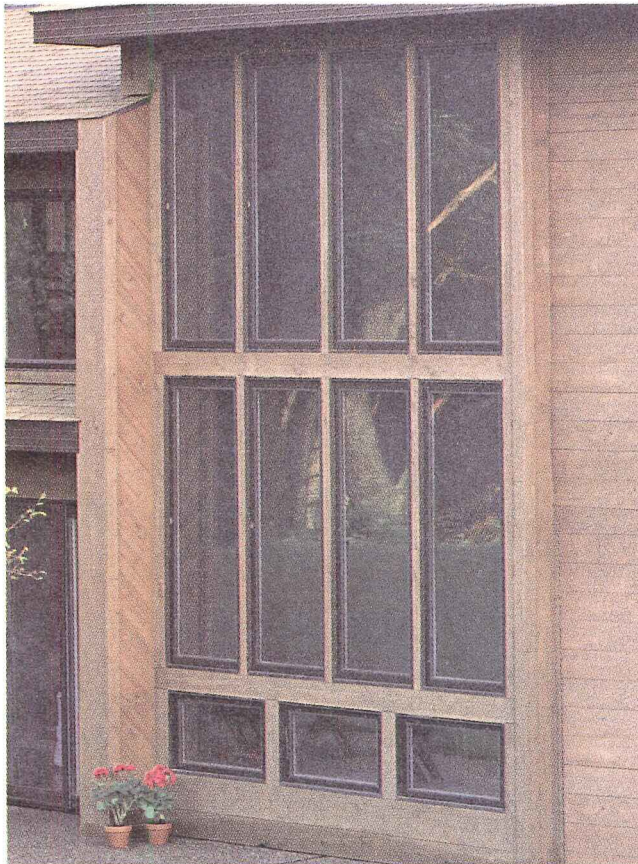
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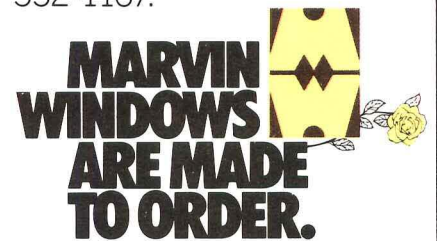


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Research Funds Sought for Acid Rain, Indoor Pollution

AIA is asking the federal government to intensify research into the causes and effects of indoor air pollution and acid rain, the two clean air issues most related to the built environment.

In written testimony on indoor pollution submitted by former president Robert Broshar, FAIA, to a House subcommittee, the Institute said that although the ability to detect such pollutants as carbon monoxide, dust, and radon has increased, "progress may be inhibited by poorly focused research efforts or an

unwillingness to deal with the implications" of health.

Indoor air quality research is being carried out by several federal agencies, AIA noted. One of these, the Department of Energy deals primarily with residential buildings and the relationship between energy conservation and indoor air quality. However, "DOE's tendency to focus on indoor air quality in residences has left the design community and policymakers with an inadequate understanding of the nature and extent of indoor air quality

issues in occupational and other nonresidential settings," according to AIA's testimony.

In addition to research to determine levels of pollutants in residential as compared with nonresidential buildings, AIA called for research into the relationship between ventilation rates and indoor air quality and research into the development of flexible mechanical systems that can accommodate functional changes in building use.

In a subsequent hearing on the Senate side of the Capitol, Thomas A. Kamstra, AIA, testifying for the Institute on amendments to the Clean Air Act, said that the Environmental Protection Agency is the appropriate agency to coordinate research on indoor air pollution and make results available to the public. However, said Kamstra, "Unless EPA makes an aggressive attempt to inform building industry practitioners of its research results, the potential for widespread, practical application of its findings will be greatly diminished."

Concerning acid rain, Kamstra described its known effects on such building materials as reinforced concrete, wood, marble, limestone, and copper and other metals, but said there is "much yet to learn. . . . There is a need for continuing research." He also said AIA "finds merit" in the federal-state relationship outlined in the amendments to the Clean Air Act because it allows states to tailor responses to local needs. However, he said, AIA "is sensitive to the need to assure that proposed state programs . . . are rigorously reviewed to determine that the reduction targets will actually be met."

AIA approves of limiting pollutant reductions to sulfur dioxide only, Kamstra said, because not enough is known about nitrogen oxide to be certain that trade-offs would mitigate the most damaging form of acid rain.

U.S. Capitol Master Plan Meets Opposition in Hearing

At a House of Representatives subcommittee hearing on the U.S. Capitol master plan in November, AIA strongly endorsed the plan as written while others charged that it is too specific about future construction in the 240-acre area under jurisdiction of the architect of the Capitol.

The master plan was presented to Congress in September 1981 by Architect of the Capitol George M. White, FAIA (see page 19, Oct. '81, page 19). Five years in preparation, the plan provides "a set of coherent and perceptive projections for the future of the area," according to a summary contained in the proposal. "Projections for the future development of the hill result from the basic need for adequate work-

continued on page



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Ray C. Hoover, AIA, Project Mgr.,
Thompson, Ventulett & Stainback, Inc.;
Homer E. Anglin, Jr., Part.-in-Charge,
Brady & Anglin Consulting Engineers;
Thomas W. Ventulett, III, FAIA, Principal,
Thompson, Ventulett & Stainback, Inc.



**CHATHAM COUNTY
SOCIAL SERVICES BUILDING**
Pittsboro, NC

Echoing the form and towers of the region's tobacco sheds, this building calls upon traditional strategies to control the interior climate. Fans in the roof monitors draw air through the building envelope to buffer the conditioned mini-house offices set along "streets" inside. These "houses" complete with doors and windows, receive illumination from skylights in the roof "to create a very soft, friendly, humane environment."

Robert E. Hall, Dir., Chatham County
Social Services; Dennis W. Carter, Mech.
Eng./Energy Consultant, G.W. Francis
Assoc., P.A.; Norma DeCamp Burns, AIA,
Project Arch./Interior Design; Robert
Paschal Burns, FAIA, Part., Burnstudio
Architects, P.A.



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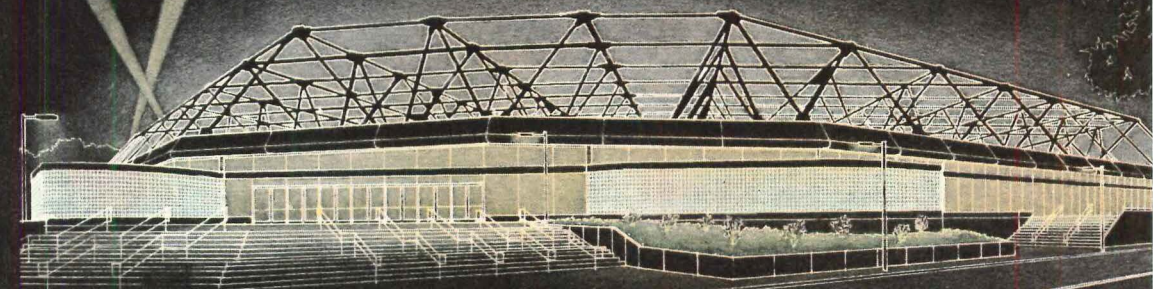
Richard Watson, FAIA, Principal, Buchanan/Watson Architects; Kenneth E. Mull, Principal, Mull Assoc., Mech. Eng.; George E. Buchanan, AIA, Principal, Buchanan/Watson Architects; Milton Johnston Jr., Pres., New Canaan Center Assoc., Inc.

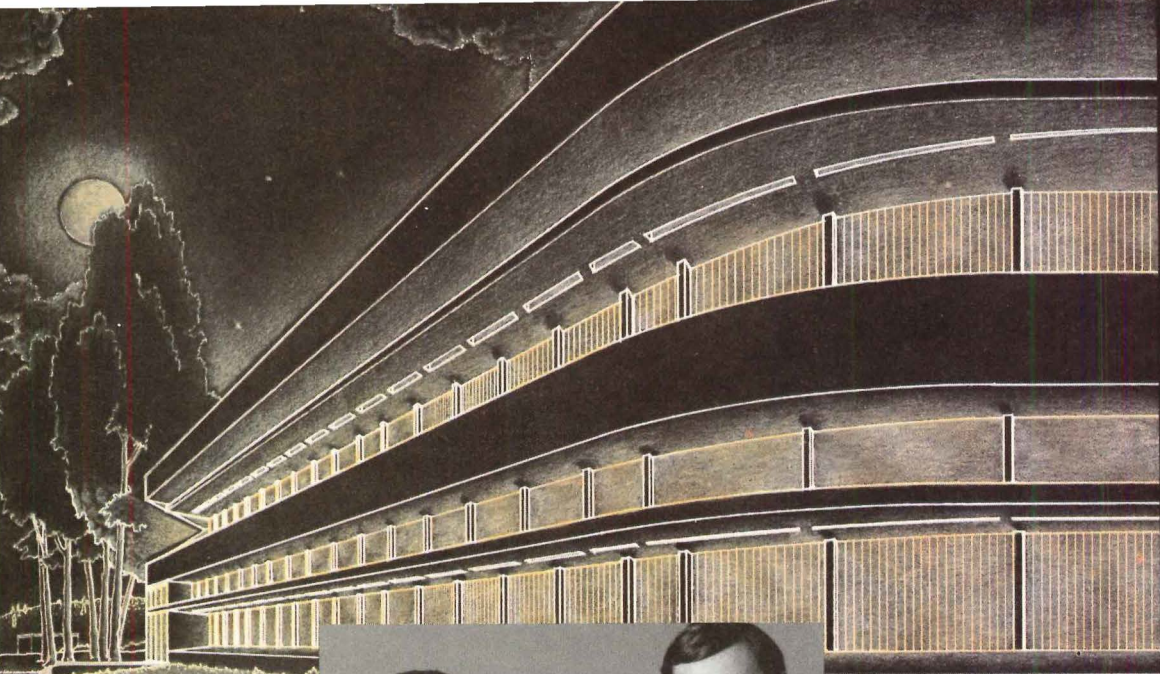


SERVER-HAWKEYE ARENA
University of Iowa

Clipped out of an existing ravine, this 10,000-seat arena is a brilliant utilization of the site to reduce the impact of a very large structure, while seizing upon the energy advantages inherent in stable ground temperatures. Bridging the ravine is a massive space truss with the roof hung below. This not only minimizes the volume of conditioned air, it gives the building a "sense of spirit."

John A. Kennon, FAIA, Design Principal/Architect, CRS; David H. Geiger, Principal, Geiger Berger Assoc., P.C., Structural Eng.; Robert E. Kettleman, P.E., Vice President/Engineer of Mech. Eng., CRS.

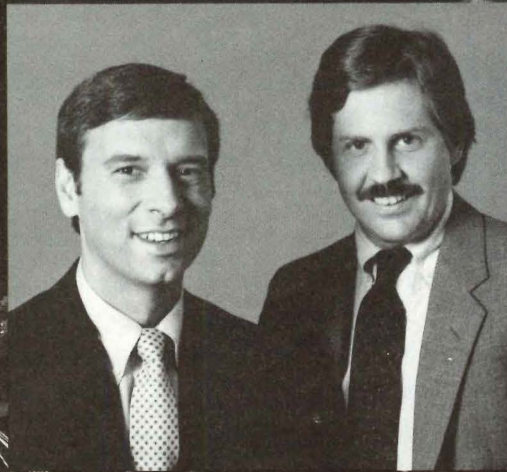
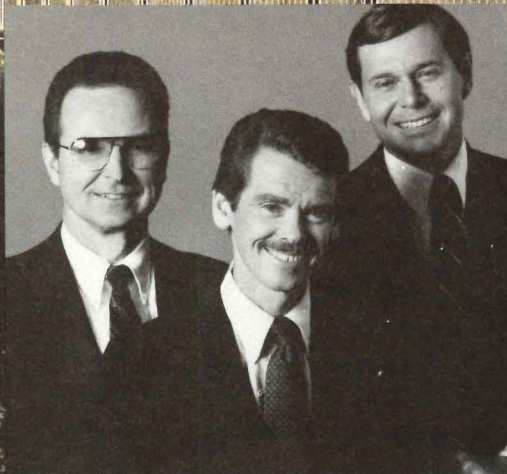




VENTURA COASTAL
CORPORATION BUILDING
Ventura, CA

Because electric lighting typically consumes more than 50 percent of the energy used in offices, this two-story building deals with the problem head-on. Through the use of clerestories, light shelves, and highly reflective ceilings, daylight is directed throughout the building virtually eliminating the need for electric-light use during daylight hours. The incorporation of these lighting strategies has created a dramatic open interior with views of the ocean and mountains.

Donald A. Spitzer, Mgr., Corporate Engineering, Ventura Coastal Corp.; Scott Ellinwood, AIA, Project Design/Energy Strategy, Rasmussen & Ellinwood Architects & Planners; Alfred F. Nibecker, Mech. Eng., A. F. Nibecker & Assoc.,



BURNET CIVIC CENTER
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Prevailing breezes passing over a shallow creek help cool this unusually site-sensitive building. Discriminative massing reflects its different climate control needs: the mechanically cooled city offices form a compact mass with heavy walls, while passively cooled recreation spaces stand out to catch breezes. Huge overhangs create temperate micro-climates. "All the parts are put in the right places."

Lawrence W. Speck, Principal;
Paul M. Lamb, Project Architect, Lawrence W. Speck Assoc.



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1983 JURY

Vivian E. Loftness, Chairperson, VLI Associates; George M. Notter, Jr., FAIA, Anderson Notter Finegold, Inc.; William Turnbull Jr., FAIA, MLTW/Turnbull Associates; Helmut Jahn, AIA, Murphy/Jahn; Larry W. Bickle, Ph.D., P.E., The Bickle Group; Barry L. Wasserman, FAIA; August Verduyssen, P.E., Daniel, Mann, Johnson & Mendenhall.

government from page 40
 g space for the members of Congress
 and the various required support services.”
 During hearings in the subcommittee
 public buildings and grounds of the
 House Committee on Public Works and
 Transportation, Robert Broshar, FAIA,
 who was then Institute president, spoke
 in favor of a resolution introduced by Rep-
 resentatives Robert Young (D.-Mo.) and
 James Howard (D.-N.J.) calling for adop-
 tion. “The future development laid out
 in the master plan is to follow the pre-
 cept expressed by the McMillan Plan, ‘if
 Congress needs new buildings, here is
 where they should be.’ . . . The authoriza-
 tions and appropriations necessary to
 carry out the master plan are, rightly so,
 sent to the Congress. Congress does not
 need to look at this plan defensively
 because it proposes additional building.
 Only Congress should decide when and if
 each building should occur. Congress has
 always decided whether there should be
 expansion on Capitol Hill. This plan pro-
 poses no deviation from this tradition.”
 Among those not likely to support adop-
 tion of the master plan is Representative
 Ray Shaw (R.-Fla.), a member of the
 subcommittee. Last month an aide, John
 Molko, summarized Shaw’s opinion. “The
 plan as drafted is a blueprint for future
 construction: on the House side, 2.8 mil-
 lion square feet in six new buildings and
 on the Senate side three new buildings in
 about 1.5 million square feet, which would
 about double existing space. Unfortunate-
 ly, if the 98th Congress passes this plan,
 which is specific about allowable square
 footage on individual sites, future Con-
 gresses will look on the plan as a commit-
 ment to build to those limits. Congress-
 man Shaw feels that since the plan is
 conceptual and nonbinding, there is no
 need to approve it. The architect will have
 to and can always refer to it whether it is
 adopted or not.”
 Elliott Carroll, FAIA, executive assist-
 ant to the architect of the Capitol, re-
 sponds: “Just like the comprehensive plans
 for communities all over the U.S., this one
 proposes no construction. The plan says
 repeatedly that if the Congress should ever
 need new buildings, here is where they
 could be located. This is the environ-
 mental capacity of the hill beyond which
 could the Congress grow, buildings should
 be located elsewhere. The McMillan Plan
 allowed sites for 75 buildings. Each of
 the 37 that have been built on those sites
 was separately authorized and separately
 appropriated at the time they were needed.
 “As to whether the plan need be adopted
 by the Congress, it is the feeling of the
 local community that it is time for the
 Congress to confirm its intentions for the
 next 75 years.”
 Hearings on House Resolution 4332
 were expected to resume during the
 second session of the current Congress.

National Trust Quantifies Preservation Efforts in Report

The National Trust for Historic Preservation has released a report, “Older and Historic Buildings and the Preservation Industry,” that for the first time defines and quantifies the supply and demand of preservation, the extent of preservation efforts, and the economic and social effects of the work.

The study found that older and historic buildings make up more than 25 percent of the total U.S. building stock. It also stated that reconditioning or adapting older buildings usually costs about one-third less than new construction and that the annual investment committed to rehab efforts is more than \$20 billion.

Other findings of the study:

- Private investment in historic rehabilitation projects has totaled \$2.98 billion since 1977 when investment tax credits became available, hitting a high of \$1.5 billion for FY 1983.
- Buildings constructed before 1900 are “naturally energy efficient,” all pre-1940 buildings use less energy than new ones, and buildings constructed between 1940-59 are the least energy efficient.

The study also found that work on older and historic buildings continues to grow as a share of architects’ work. By the end of 1979, 96 percent of all U.S. architects had done projects involving existing buildings. Also that year, approximately one fifth of the total volume of the average firm’s business was rehab work.

News continued on page 110

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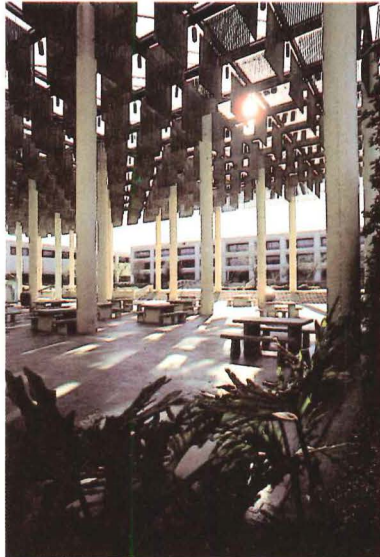
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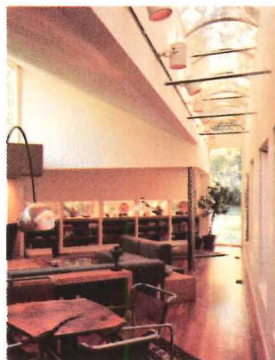


University commons
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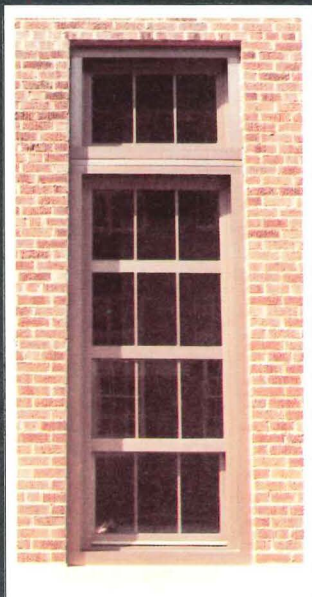
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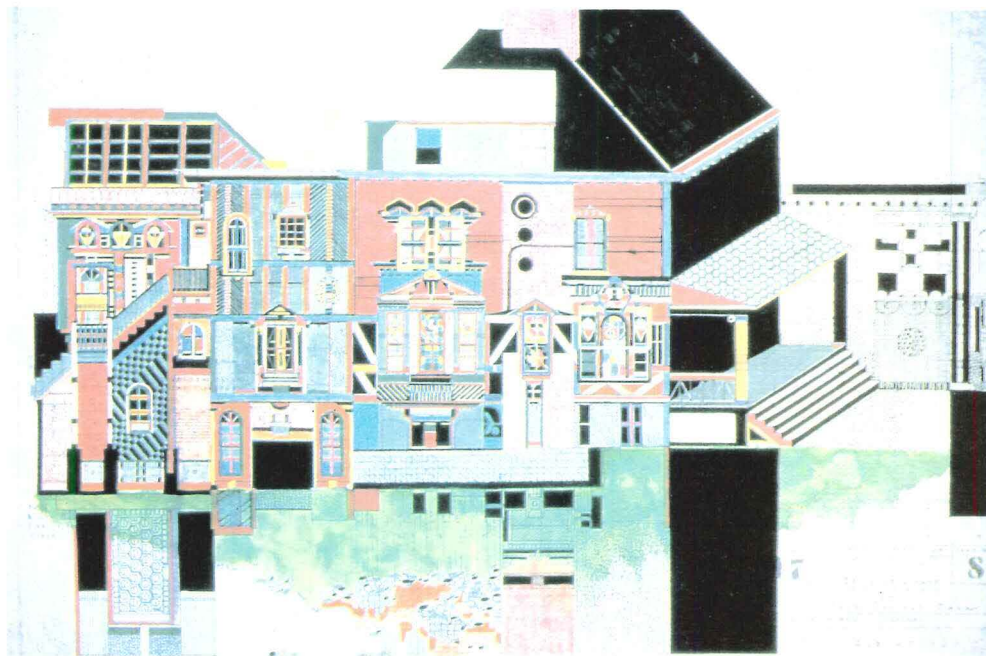
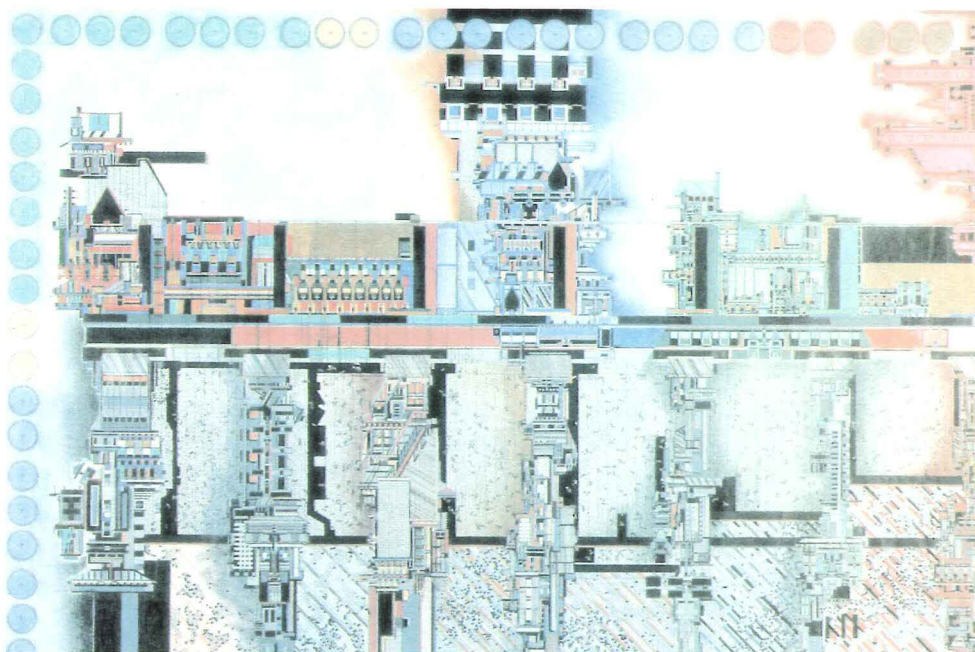
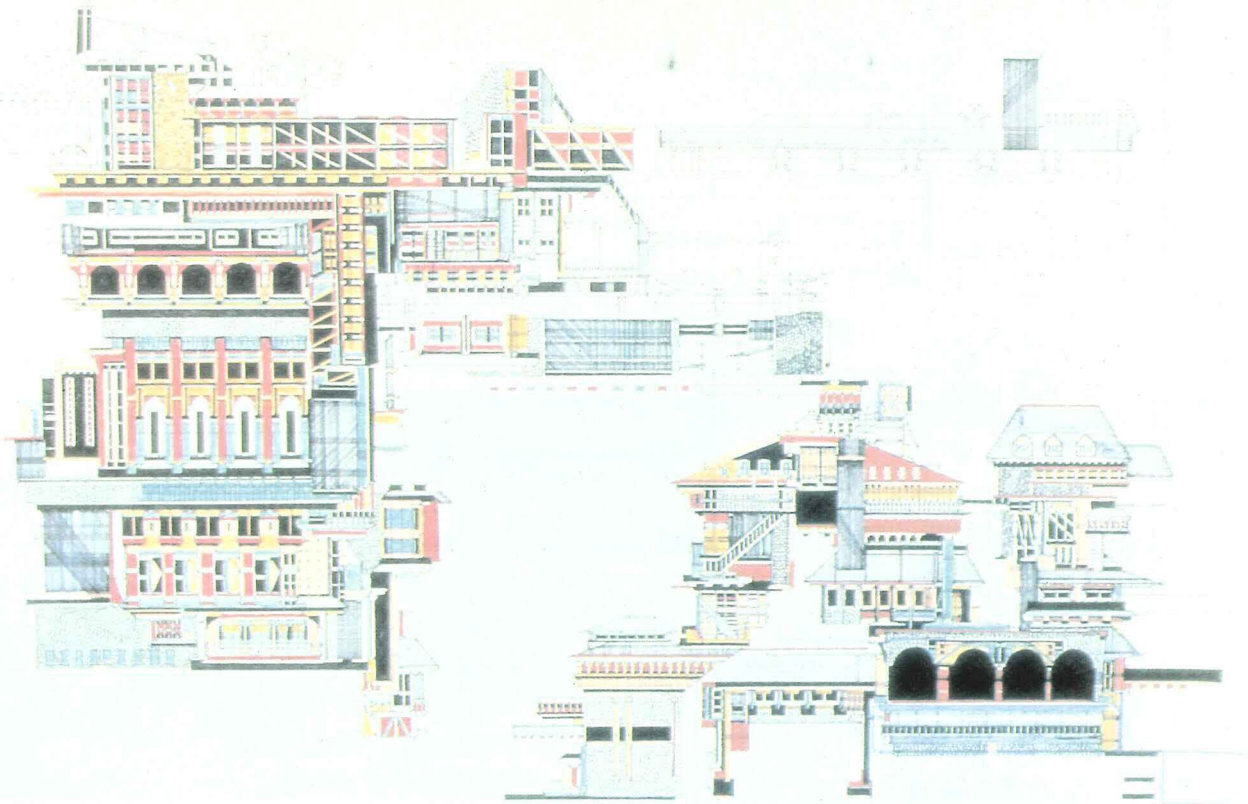
the Arts

Abstracted View Of Architecture

Abstraction of architectural forms is the guiding principle behind the drawings of New Jersey artist Michael Insetta. In some drawings these forms simply become colored patterns; in others the appearance is that of a city where buildings are layered one upon the other.

Always interested in architecture but not wanting to become an architect, Insetta instead adopted what he calls the "architectural language" and transformed it into the art. In each drawing he explores color and form relationships and tries to show depth without using conventional perspective techniques. He likes to use black in every drawing, which he says "seems to make my drawings work." Although sometimes inspired by actual architectural blueprints, he usually starts with an abstract idea and, most recently, with only color selection. "The drawing kind of takes shape from there," he says. His emphasis is now on primary colors, and his materials are most often colored pencils and plastic lead on mylar. Interestingly, until recently Insetta was a drafter in an architect's office, but he found that it negatively affected his drawings. "I've been trying to get out of stealing architectural details and into more abstract symbolism," Insetta says. NORA RICHTER GREER

Drawings top and right were produced from architectural blueprints and show Insetta's new interest in primary colors. Middle, one of his latest drawings is a composite of his previous work.



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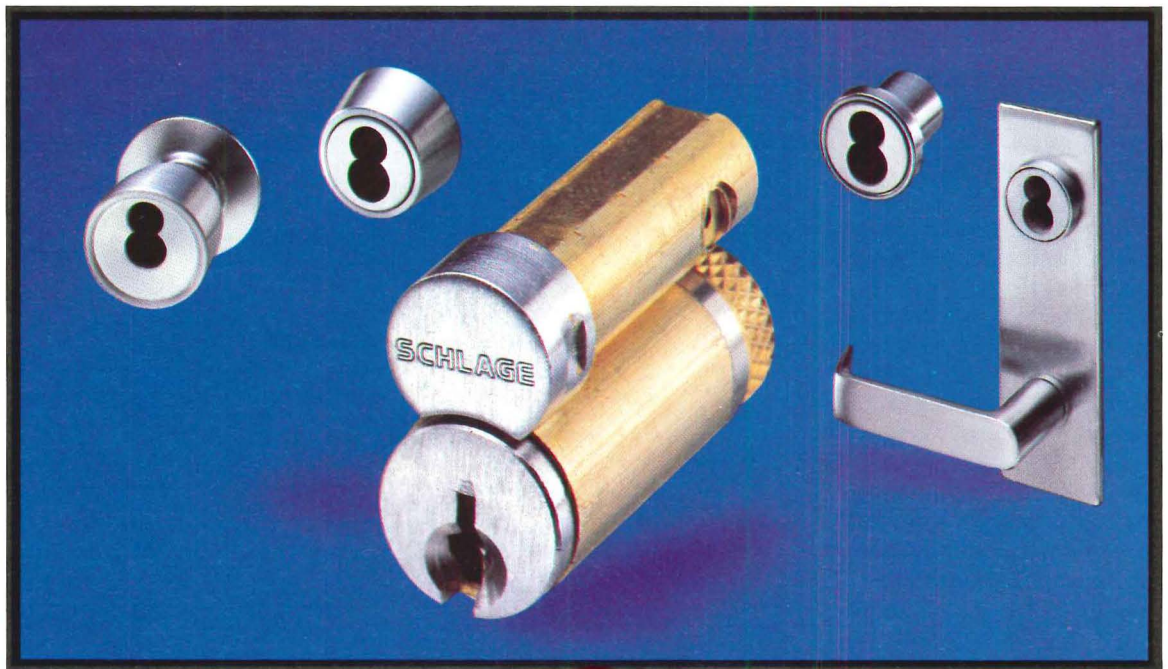
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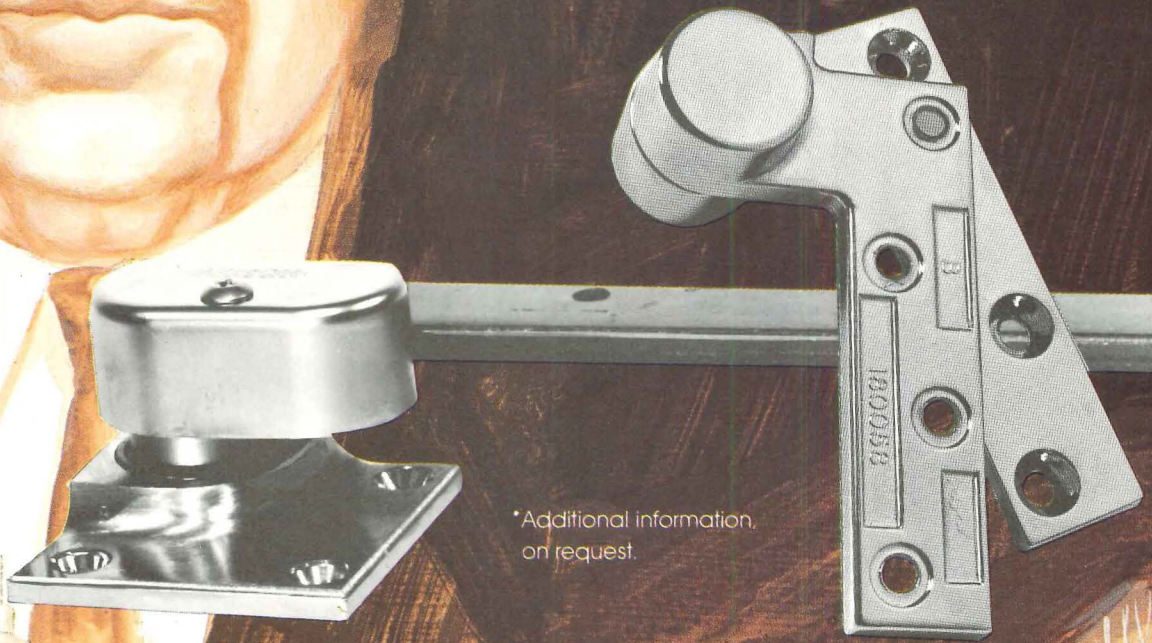
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ARCHITECTURE

This started out as an issue on energy, which, in large part, it still is. But in a larger sense it is an issue about attitudes toward architecture.

One such attitude is that buildings need to be efficient in their use of energy, as those on the pages immediately following eminently are. Another expressed in this issue is that, while architecture may not be able to “save the world,” it can serve some significantly humane purposes for specific individuals and communities.

A favorite contributor traces the evolution of this attitude and others in the careers and thoughts of a set of activist-architects of the '60s.

Finally we present a portfolio of truly tiny works that exemplify the attitude that architectural quality is not determined by size. *D.C.*



Energy, Frugality, and Humanism

They characterize the results of an architectural revolution in Sacramento. By John Pastier

postwar years, when California maintained the largest architectural bureaucracy in the free world, it engendered a sweeping vision of the seat of state government in Sacramento as towers in a park (not unlike what Nelson Rockefeller subsequently dreamed in Albany).

Suddenly the vision changed. The state began laying the groundwork for a pedestrian-scaled, socially diverse, mixed use center occupied around the clock, where government buildings were to be good neighbors and exemplars of energy conservation and humane design. This phase, initiated in 1975 and largely put on hold in 1983, is a milestone of imaginative governmental practice and may be Sacramento history's most remarkable chapter since the days of the gold rush, the Pony Express, and the first transcontinental railroad more than a century ago.

Despite a more than sixfold growth since the start of World War II, and a resulting metropolitan population of over a million, Sacramento manages to preserve a certain sleepy and provincial character. Its rapid growth has produced a highly suburbanized place, and postwar innercity rebuilding has not really strengthened its urban character. In the '50s and '60s, urban renewal traded much of its historic core for dull buildings scaled and sited for automobiles, and its main downtown shopping street was made into a landscaped and sculpted pedestrian mall in vain hopes of reversing its commercial decline. A grand plan for state buildings, more modest in scale than Albany's but still not very sympathetic to established urban patterns, had been drafted in 1960. Its partial implementation involved widespread housing demolition and the loss of 3,000 residents. Parking lots flourished in their place, and bulky, faceless high rises became the standard method of absorbing governmental growth. At one point, there was even legislative interest in a scheme that would have shifted the seat of government from the domed 1874 state capitol to a new office skyscraper.

Meanwhile, government building policy was rather haphazard. It was especially true in the late-'60s and early-'70s, when Governor Ronald Reagan initiated a nondevelopment policy whereby the state leased millions of square feet of office space in speculatively built structures. He further ignored the capitol area (as well as basic urban values) by moving the governor's residence from a historic Victorian mansion downtown to a large new ranch-style house several miles outside the city limits.

When Jerry Brown succeeded Reagan in 1975, he brought with him a keen awareness of the public policy importance of energy and technology. His administration included such unexpected figures as former astronaut Russell ("Rusty") Schweickart and *Noble Earth Catalog* Publisher Stewart Brand. More significantly, the capitol city, Brown was also familiar with the urban theories of Jane Jacobs and had become acquainted with Sim Van der Ryn, a professor of architecture at U.C. Berkeley who had worked on developing small scale, self-sustaining communities. Van der Ryn had written white papers on environmental and energy policy for Brown in a private capacity, but when the governor asked him to be the state architect, he was reluctant to accept because of skepticism about the effectiveness of any government bureaucracy. In late-1975 he finally agreed to come to Sacramento for three months to work out new urban design policies.

As it turned out, he stayed for three years, serving as the state

architect and as head of the newly formed office of appropriate technology. In that time he brought many fresh and talented people to work in the capital, including his deputy and successor, Barry Wasserman, FAIA, his future partners, architects Peter Calthorpe and Scott Matthews, architect and programmer Bobbie Sue Hood, AIA, and in a consulting role, urban designer John Kriken. Several recent Berkeley graduates came to staff various state and local agencies, and some of California's best architectural offices were commissioned to design state buildings.

Van der Ryn's first task was to update the capitol area plan that had languished during the previous eight years. Brown thought the new plan should aim to "create a human-scale society and a reinvigorated core that operates 24 hours a day, instead of just eight." In retrospect, Reagan's inactivity had inadvertently produced at least one benefit: It had suspended what was now deemed a misguided effort of building massive, anonymous single-use office blocks. Since there was no money in the current state budget for a new planning effort, Van der Ryn arranged for a team of his Berkeley students to live rent-free in state owned apartments and do the initial work in return for academic credit.

What eventually emerged from this undertaking, and from related work done within the office of the state architect and by the San Francisco office of Skidmore, Owings & Merrill, was a set of architectural and urban design policies for the governmental zone that would reverse both the monumentalism of the early-'60s and the minimalism that followed it. The Reagan policy of letting private owners provide public space was rejected on grounds of economy and functional efficiency. (At one point, the state was leasing 2.1 million square feet of office space, accounting for 37 percent of its total, in scores of different Sacramento locations, at a cost estimated to be 25 percent higher than that of consolidated, government owned buildings.) The earlier scheme calling for a governmental ghetto of massive buildings also was rejected because of its inappropriate symbolism and its detrimental effect on urban life and form.

Under Brown and Van der Ryn the state proposed to reintroduce residential structures into the governmental zone along with some ground floor commercial activity, and mix those uses at the relatively fine grain of quarter-block parcels. Existing housing would be conserved and rehabilitated, and, like new housing, would be meant to serve a wide range of residents. This increased capitol area population would help support the faltering downtown business district just to the north.

State-provided parking would be reduced with respect to number of employees and shifted to the periphery of the capitol area. Shuttle busses would link this parking to workplaces. Core area state offices would be located within a 10-minute walking radius from the capitol. Car pooling, greater use of public transportation, and the provision of housing within walking distance would further reduce the proportion of vehicles while increasing that of foot traffic. Pedestrian presence would also be encouraged by smaller buildings, limited to four stories, articulated to reduce their scale, and built up to the sidewalk to provide a continuous streetscape. The lowered height would conserve winter sunlight and promote compatibility between adjoining office and residential buildings. The eventual result of these measures would be a diversified, 24-hour-a-day community, where a decreased need for private transportation would enhance neighborhood character and conserve energy as well.

Energy efficiency would also be addressed more directly through architectural design. Van der Ryn initially hoped to reduce energy consumption by 90 percent in new state office buildings, and although this proved optimistic, the five Sacra-

ft, the facade of the Water Resources Control Board Building is a lively play of white stucco-covered structural steel frame and deep blue painted ductwork and metal sunscreens.

An in-house design and a curious competition.

mento offices built to date have been estimated through computer modeling to produce savings in the range of 56 to 70 percent. These economies are effected through a wide variety of means. Active solar systems provide domestic hot water, and in one case, primary space heating and cooling. Passive techniques are more prevalent, and they include daylighting, fixed and movable solar shading, selectively reduced glazing, underground and earth-covered construction, generous insulation, atria and courtyards, and use of heat stratification and thermal mass. Additionally, prominent open stairways and low building heights are meant to reduce elevator use.

Although unprecedented effort was directed toward energy conservation, that was just one of the state's priorities for new buildings. Urban design considerations, as already cited, were significant and integral with other goals, and there was also major emphasis on the quality of environment for workers and visitors. This last aspect, arising largely from the program formulations of Bobbie Sue Hood, was sometimes downplayed in presenting the building agenda. As Van der Ryn explains, "It was easier to say that we're going to build buildings which save money by conserving energy than to say that we're going to build humanly responsive state buildings. I think a lot of people would have opposed that because they believe that everyone who works for government is basically an incompetent and a malingerer, so that the last thing you want to do is provide a good human environment for them. It's kind of like punishment—we've come to believe that public buildings ought to look cheap and be dysfunctional from the human point of view."

In strong contrast to that outlook, the state architect's office instituted a policy of individually programming its office buildings according to intended occupancy, rather than using generalized space standards as had been the previous practice. It also adopted general goals for all buildings: a strong sense of entry, "crystal clear circulation," easy orientation for visitors, and such amenities as daylighting, higher than normal ceilings, smaller than normal open office bays, outside views, employee control over interior climate, access to atria or courtyards, and inclusion of small commercial establishments. All of this was to be achieved within moderate construction budgets. Wasserman calls these new measures "government with a smiling face." Many of them overlapped urban design and energy conservation objec-

tives; Van der Ryn was convinced that "there is synergy between energy, frugality, and a good human environment."

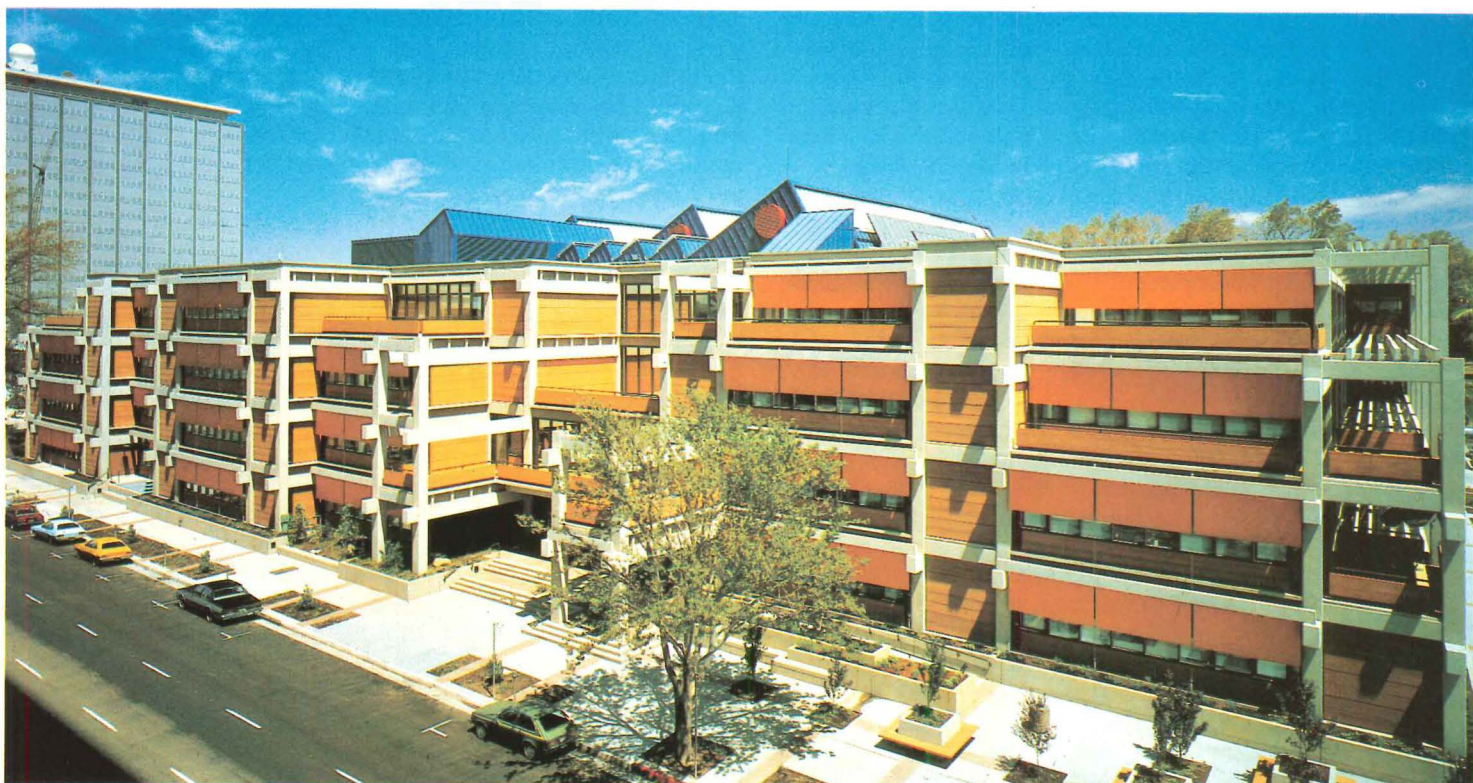
Ambitious as it was, this vision of synergy was not confined to Sacramento or even to architecture and urban design. For most of the time that he was the state architect, Van der Ryn also headed the office of appropriate technology, the agency initiated by Jerry Brown and himself. In their eyes, "appropriate" meant economical, self-sustaining, decentralized, small scale, and accessible to ordinary people. Its acronym, OAT, fortuitously evoked many of the desired qualities: The plant is hardy, nourishing, and the symbol of a thrifty, independent-minded civilization.

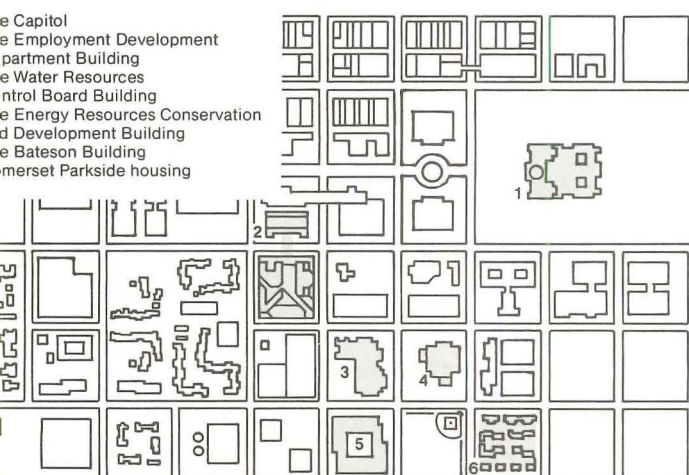
Urban design objectives were pursued on two fronts. The office of the state architect (OSA) was able to build many of them into the programming and design of new state office buildings. A wider range come under the jurisdiction of the Capitol Area Development Authority (CADA), an agency that grew out of the updating of the capitol area plan and was staffed in part by people from OSA who had worked on that document. CADA's functions resemble those of a redevelopment agency and include residential property management, rehabilitation of older dwellings, and initiation of new mixed-income housing construction.

Goals related to working conditions and quality of the interior environment were obviously OSA's province, as were most of those embracing energy. Innovatively programmed and designed buildings were the vehicle for these objectives. The Brown administration's building program was quite extensive, involving 15 projects statewide and a wide range of outside architectural talent. Eight are built and occupied, one is under construction, working drawings are complete for two, and schematics for four. The best place to evaluate the program is Roosevelt Park in central Sacramento, since three of the buildings adjoin it, a fourth is only two blocks away, and the first two new housing complexes developed in accordance with the new capitol area plan also adjoin the park. This vantage point also permits an assessment of several of the individual buildings as mutually interactive urban design elements.

No matter how well they were formulated, OSA's goals were merely words until the various buildings would embody them in tangible form. Thus, much of the state program's ultimate validity depended on the astute commissioning of architects for individual structures. For the pioneer project, the Gregory Basson Building, Van der Ryn felt that the people who would be

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John Pustier

it, the variegated facade of the Gregory Bateson Building,
 with sawtoothed skylight over central court. This page, courtyard
 of the Employment Development Department Building,
 and building's slanting display of solar collectors, right.

most responsive to his unprecedented and demanding requirements would be members of his own staff. The first in-house effort, coordinated by a specialist in energy-efficient residential design, used conservation techniques inappropriate to offices and did not really address its urban context. Facing up to these deficiencies, Van der Ryn decided to abandon the scheme and begin afresh. A new team was brought to the task, produced an exemplary design, and got the program off to an auspicious start. The design team's principal members were Peter Calthorpe, Robert Matthews, and Bruce Corson. Because the building was used as a testing ground, it abounds with a diversity of ideas, forms, and materials. It gained notoriety when defective dampers prevented proper ventilation. Until identified and corrected, the problem caused major employee discomfort (see Sept. '82, page 18).

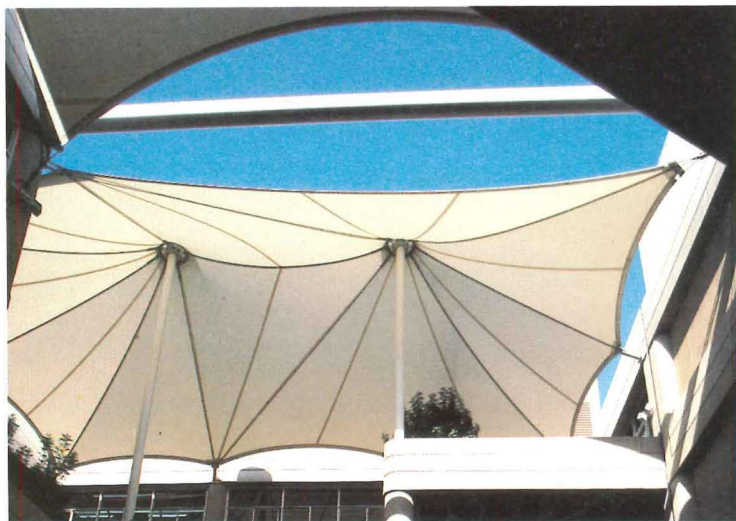
The Bateson is the most satisfying of the new central Sacramento buildings, especially when one is experiencing the 150x150-foot enclosed atrium space. It seems both a little odd and yet familiar, even comforting. Designer Calthorpe once said the climate control strategy follows a "biological paradigm," and in some subtle way this shows in the esthetics of the space. Its elements and proportions come together not in the cool, resolved

fashion of high art, but in an animatedly imperfect way that suggests life itself.

As the first undertaking of an unprecedented program, it was the repository for all the early aspirations, second thoughts, elation, and frustrations of its creators—and it shows. Looking back at the state program after four years away from Sacramento, Van der Ryn finds the Bateson building "clearly the one with the most soul, the one that is the richest and most coherent." Governor Brown, normally indifferent to physical surroundings, paid it at least as strong a tribute. After seeing the completed building, he claimed space in it for a second office.

There were three reasons for holding a design competition for the second building, now known as the Employment Development Department Building (EDD). It seemed a good mechanism to select the program's first outside architects, it could educate the profession about energy-saving techniques and benefits, and it could call public attention to the state's new commitment to humanly and environmentally responsive design. Thus in 1977, OSA and the State Energy Resources Commission jointly sponsored a highly specific competition to design a 240,000-square-foot building on a one-and-a-half-block site. Six finalists were chosen from among 42 entrants and paid to further develop their schemes. When the jury reconvened two months later to select the winner, there was intense debate and a 3-2 split vote.

The majority, enthusiastically led by the late William Caudill, favored an abstractly conceived active solar scheme by Benham



Two later additions to the capitol area.

Blair Affiliates (later renamed The Benham Group) of Oklahoma City. The minority, comprised of Van der Ryn and energy consultant Fred Dubin, preferred a more finely scaled, articulated passive solar design by the Berkeley firms of ELS Design Group and SOL-ARC. Van der Ryn recalls the event: "There was a very fine scheme by ELS. It was the most refined and worked-out concept, and perfectly fit the program. Then this big statement came in, and Bill Caudill did an incredible selling job on it. There was an idea there, but very poorly executed. It was a diagram made into a building, which unfortunately seems to happen often in competitions."

Once made public, the decision provoked controversy, but the process nevertheless proved beneficial. The ELS scheme was impressive enough to gain the firm a subsequent commission for the San Jose state building (with SOL-ARC), a design clearly descended from the competition entry. And the third place entrant, Sam Davis, AIA, later collaborated with MBT Associates on a Sacramento state office building that drew on the principles of his competition design. It might be said that the prime value of the competition lay in the runners-up.

As built, the competition winner departs from its original design. The EDD building was first presented as a large, solar collecting slab, windowless on its long, slanted south face and connected by tunnel to a pair of two-story subterranean buildings facing a depressed landscaped mall. The roof of one would be a park, the other a site for privately built housing. OSA insisted that the slab have south windows, since it rose six stories above ground and housed several hundred human beings. The lower portion was also redesigned when state-supplied water table information proved inaccurate: The underground building had to be raised several feet and reduced to one story.

There is undeniable ingenuity in EDD's energy strategies (it is the only active solar building in the state program) and physical planning, but spatial sensitivity and architectural refinement are in short supply. Even with added windows, the slab offices are the least satisfying work spaces in completed downtown Sacramento buildings. A problematic outdoor space between the slab's north side and an existing office block is an unresolved residue of the oddly literal minded decision to slope the entire building, front and back, rather than just the solar collectors themselves. These devices, composed of several hundred movable reflectors and six long receiver pipes mounted on spindly outriggers, are the tail that wags the dog: Not only did they force the main building into an internally illogical form, but their visual domination of its principal facade makes it seem more an exercise in mechanical engineering than the work of architects.

The EDD's style, a slightly futuristic strain of 1960s brutalism, is regressive and inappropriate to the state building program's humanistic goals. Its depressed mall and rooftop park space are welcome and seem reasonably well used, but, like the slab, have the undeveloped quality of a model blown up to full size.

In comparison with the EDD, the formidably named California State Energy Resources Conservation and Development Commission Building is clearly a better workplace and a more inviting piece of architecture. Yet the Energy building shares to some degree EDD's shortcomings in translating a promising set of initial design ideas to specific tangible form. Its design was initiated by OSA and then given to Nacht & Lewis of Sacramento for final development. The exterior is highly articulated in p



cross page, stepped massing of the Energy Resources building, central atrium shaded by translucent canopies. Above, scooped-out entrance at the corner of the Water Resources Control Board building; right, its L-shaped courtyard from an office.

and section by stepped modular massing of the main structure, undulating bands of projected sunshades, and by a complicated system of movable and fixed metal louvers. Its 130,000 square feet of office space wraps around a generous and simply stepped central atrium spanned by two bridges and adjoined to a large public terrace and four smaller semiprivate decks. This space is conceptually akin to that of Herman Hertzberger's Vestibule Centraal Beheer office building in Appeldoorn, Holland, and is shaded by billowing translucent canopies recalling the tent structures of Frei Otto.

A nice sense of sheltered communality marks this central outdoor space, and a clearly modular concrete structural system gives visible discipline to the building's vigorous internal and external stepping. The preponderance of work spaces have good daylighting and plentiful opportunities for inward and outward views. On the other hand, some of the building's design virtues are mainly conceptual. There is a prevailing grayness to the atrium space and a hardness of character arising from an oversupply of visible concrete surfaces. Due to a conflict between common sense and the city fire department, the atrium canopies spill cascades of rainwater into the space rather than onto the roof. Energy Commissioner Rusty Schweickart finds the building's operating policy somewhat rigid, pointing out that operable windows are screwed shut and external louvers cannot be adjusted to the affected occupants, but only through the seasonal visits of maintenance staff armed with protractors. The same louvers create a busy appearance outside, and the floating concrete sunshades above them are incongruously heavy and too easily mistaken for structural elements. A well chosen paint color applied to these streamline moderne-like bands would improve the clarity and object quality of the exterior.

The fourth Sacramento building, by MBT Associates and Sam Davis, AIA, is the 160,000-square-foot Water Resources Control Board Building that faces the north side of Roosevelt Park. It respects the street line more consistently than the other state



©Rob Super

buildings, assuming an L-shape on an L-shaped lot and forming a similarly configured courtyard inside the block.

The outermost five feet of the building are devoted to fixed shading devices, exposed duct risers, and an expressed structural frame of steel clad in white stucco. (Originally planned as a concrete structure, it became steel in order to save about 2 percent on an already low construction cost. The penalty, of course, was the stucco, a finish that rarely looks totally convincing on modern structures.) Ductwork and metal sunscreens are painted a rich blue, as is a metal framed shedlike extension facing the courtyard.

The three corners of the block each have prominent entrances scooped out at 45-degree angles and leading to the court as well as the building. Paralleling two street directions, the court can thus serve as an alternate pedestrian path. A carefully worked out fenestration pattern and a narrow building cross section produce a high level of daylighting and relatively unimpeded views.

The Water Resources building is a handsome and accomplished piece of work. Its energy emphasis is revealed subtly. Where the EDD and Energy Commission buildings struggled visibly with the techniques of conservation, this building has tamed them and assimilated them within an overriding architec-

Is a unique chapter in state history ending?

tural discipline. The most recent of the downtown Sacramento energy program efforts, it marks an advance in resource conserving design: It is a building that does not wear its Btus on its sleeve and proves that energy efficient structures need not look all that different from their stylish but less responsible architectural cohorts.

New state offices face two sides and a corner of Roosevelt Park. The south and east sides are fronted by new housing clusters, one of which is still under construction. Although privately built, they are products of the capitol area plan and of its offspring, the Capitol Area Development Commission. To bring new housing downtown, CADA offers developers free long-term land leases in exchange for a quota of affordable units and the assurance of energy efficient and passive solar design.

This element of the plan has been harder to implement than the office component. There is no single, sophisticated, non-profit client, construction standards are lower, and market factors and consumer preferences further complicate the process. Pursuit of this goal runs counter to many tenets of Sacramento's suburbanized culture, yet downtown housing is essential to success of the plan and the return of life to the heart of the city. So far, CADA has sponsored the rehabilitation of 211 downtown dwelling units, and 219 new ones have been built or are under construction.

Most of the new housing adjoins the park. To the south, Capitol Park Townhomes, 36 Dutch-gabled row house condominiums, have been completed on a 1.2-acre site. This passive solar design was originally conceived in the office of SOL-ARC, then passed to David Baker, AIA, when he left that office. It serves urban values by holding its block face, albeit with an oddly redundant front setback, but its two-story height and 31-unit-per-acre density both seem just a bit low for its context. With selling prices of \$55,000 to \$60,000, the units represented a distinct bargain for California urban housing. Since some of this economy has been achieved through design and construction compromises, the effort must be counted a mixed success.

East of the park, a more ambitious effort by Van der Ryn, Calthorpe, and Matthews is underway. Somerset Parkside includes a good diversity of forms and uses at a solid urban density of 43 units per acre. There are 26 low-income apartments, 81 affordable (\$50,000-\$80,000) condominiums, 115 parking spaces, a restaurant, convenience store, and three other retail units. Unfortunately, a planned day-care center was rejected by the developer and replaced with a Jacuzzi spa. (As Marie Antoinette might have said, let them take baths.) The planning of this mixture is thoughtful. Within a generally south facing align-

ment for solar efficiency, three-story housing units anchor the street frontages and two-story family town houses occupy the landscaped interior of the site. Parking is either below the buildings or beneath the shelter of solar hot-water collectors. Most of the commercial space faces the park, and housing on the north and south boundaries varies in form and scale in accord with the institutional or older residential character of its adjoining streets. Here again, construction quality does not always do justice to the design, but Somerset Parkside is still an impressive response to the capitol area plan's demanding economic, social, energy, and urban design goals.

Because of their diversity, it is easy to think of these six downtown projects individually and thus overlook their place in the city pattern. This is a major consideration and the source of some paradox, in that the urban design aspects of these buildings are both laudable and somewhat disappointing. Their greatest accomplishment has been respecting the state program's urban goals: low to moderate height, a noninstitutional scale, solar access, pedestrian opportunity, and mixed and extended use. One might say that the plan has formulated the ingredients for an intelligent urban regionalism specific to Sacramento, and that new buildings have brought most of them into being. That may seem a simple thing, but it is difficult to achieve since it runs against the momentum of an ever suburbanizing society.

Where the buildings seem weak is in their specific physical form. They were quite correctly meant to look as though they were built by different hands, and they do, but with a bit too much variation from one building to another. The four sides of Roosevelt Park, for example, are bounded by four new buildings that each respond in good degree to the capitol area plan but have not all that much in common visually. Fortunately, at least compatible of the six, EDD, is removed from the park.

The pedestrian-level experience is not as lively as it would be in a really thriving downtown. Much of this is due to the uneventful ground floors of institutional buildings and difficulty of providing commercial uses at streetside. In fairness, it must be stressed that the plan has not yet been carried far enough to cause the shifts in downtown activity that it seeks. Further construction of offices and housing, plus such related measures as building the light rail commuter system planned to serve downtown, are critical to the city core's success.

Whether these necessary steps will be taken is not at all clear. In 1982, Governor Brown was succeeded by an outspoken conservative, George Deukmejian. Barry Wasserman survived more than a year into Deukmejian's administration, but has recently been replaced as state architect by Whitson Cox, FAIA. At first Cox seemed somewhat skeptical about the practicality of the building program. But, interviewed more recently, he said, "I

John Pustier





Left, condominiums (under construction) and gabled town houses; near left, apartments, all components of Somerset Parkside. Above, colors enliven the Bateson building atrium.

...e developed a healthy respect for Sim Van der Ryn's concepts. ... was a breath of fresh air." Cox praised the present architectural selection process as "fair and equitable" and said that he could have sought somewhat higher construction budgets for early buildings, based on their long-term energy economies and higher initial costs for equipment. He calls the urban design policies "a commendable experiment" but feels that the city is organizing quickly and that the plan has not acknowledged that growth properly. He believes that it has created "suburban scale neighborhoods" and that there probably need to be higher office and housing densities in the future.

Whether such intensifications would enhance or undo the plan would depend on their degree. But such speculation might be academic, since the state building program is stalled. There seems to be agreement that it is cost effective for the state to build and own its facilities, but there is no money now to construct projects that were put into the pipeline during Brown's administration. Buildings have been deleted from the 1983-84 state

budget, and although Cox has reapplied for three in the 1984-85 budget, their fate is not certain. He hopes that new financing methods will prove the solution to current fiscal difficulties. Although the new state architect seems cautiously supportive of many of his predecessors' policies, it is clear that Governor Deukmejian's economic priorities do not favor the state building program, and that the spirit that once existed in the OSA has become more subdued. Looking back on the stirrings of a few years ago, Van der Ryn says "now it's all gone back to sleep again."

The state building program and the capitol area plan constitute a unique chapter in California's, and indeed the nation's, architectural history. The eight projects totaling over 1.5 million square feet have been built throughout the state. When compared to their postwar predecessors, they demonstrate a quantum improvement in both objectives and tangible results. They represent the first time that a major public office building effort has been based on something other than monumentalism or low initial costs. By stressing responsiveness to urban context, human needs, and energy concerns, and by recognizing the interrelatedness of these issues, the state program marks a breakthrough in public policy as well as in architecture. □

Ingeniously Daylit Seaside Offices

*In Ventura, Calif. Architect:
Rasmussen & Ellinwood. By Janet Nairn*

The new headquarters office building for Ventura Coastal Corporation shows off more than impressive statistics of energy savings. It demonstrates that these can be achieved at no expense to either its visual image or its budget.

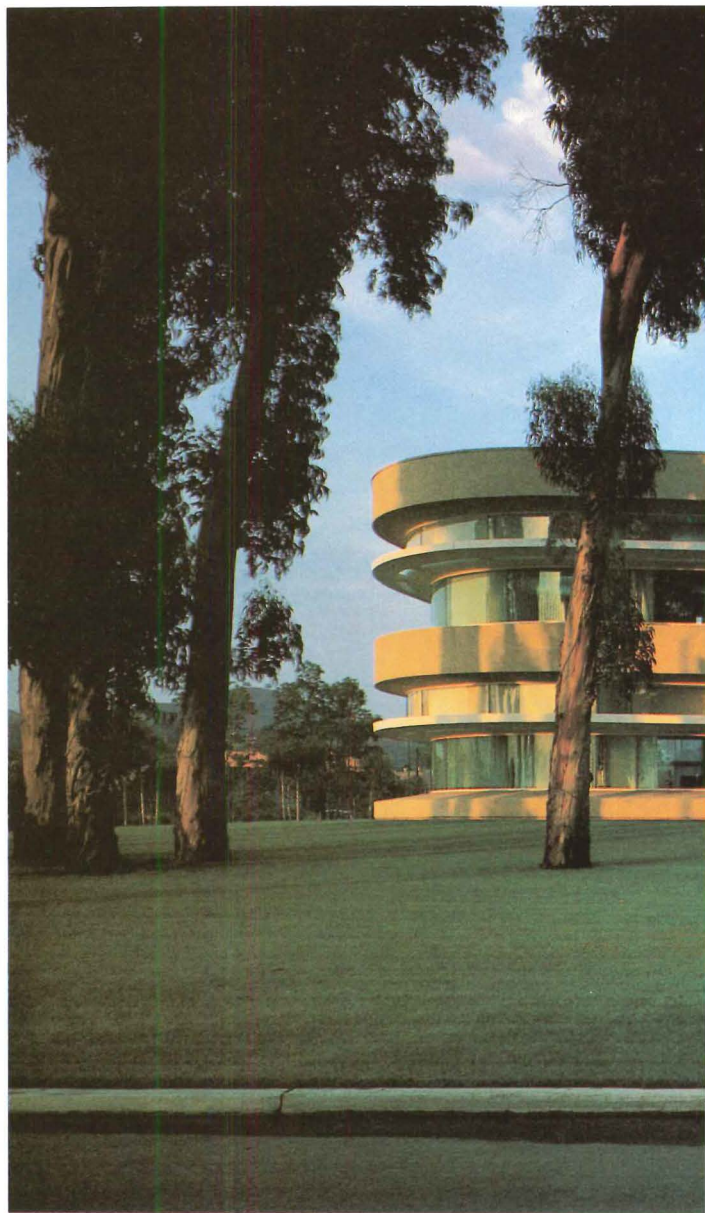
Rasmussen & Ellinwood focused the design concept on the integration of daylighting. Through manipulation of exterior and interior forms and materials the architect capitalized on the qualities of natural light, thereby creating a most pleasant human environment while minimizing the use of mechanical and electrical systems.

The architect succeeded in reducing energy requirements of the two-story, 32,000-gross-square-foot building to 20,700 Btus per square foot—only 47 percent of the maximum energy use permitted under California's nonresidential energy standards.

Ventura Coastal Corporation—processor and marketer of lemons and private-label frozen lemonade concentrate—needed to consolidate its administrative offices, as they had grown to fill five different buildings and trailers on the company's prime 24-acre site in Ventura, Calif. The client sought any optimum working environment designed and constructed within the limits of a "standard" corporate budget. Client representatives were surprised and ecstatic with the structure's remarkable energy performance.

Scott Ellinwood, AIA, who was responsible for the design concept and energy conservation strategy, started with extensive computer analyses and model studies, which helped deter-

Ms. Nairn is a freelance writer in California who specializes in architecture and design.



Photographs © Michael Urbaneck



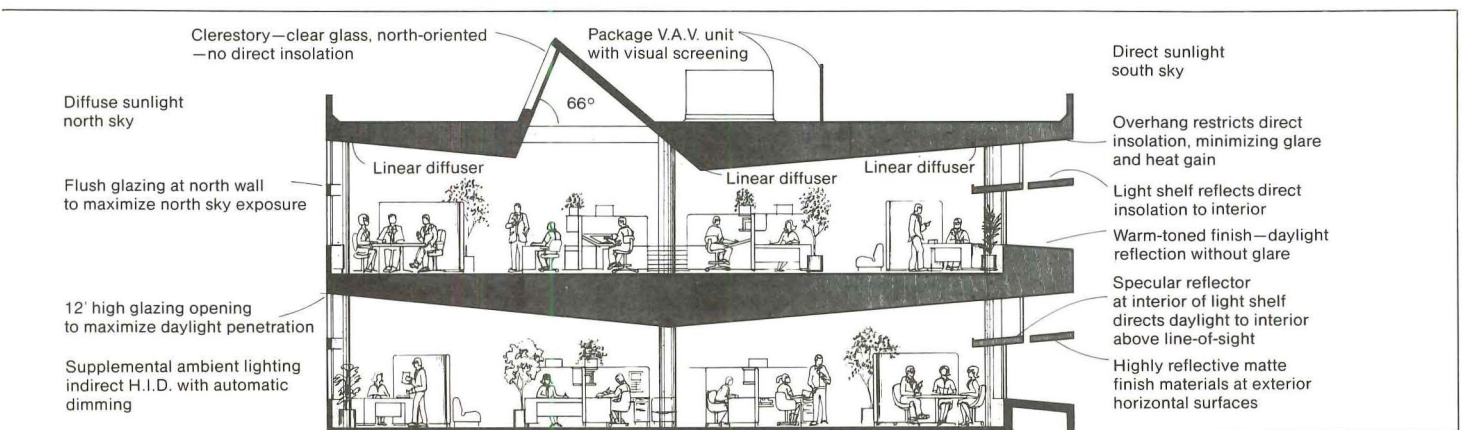


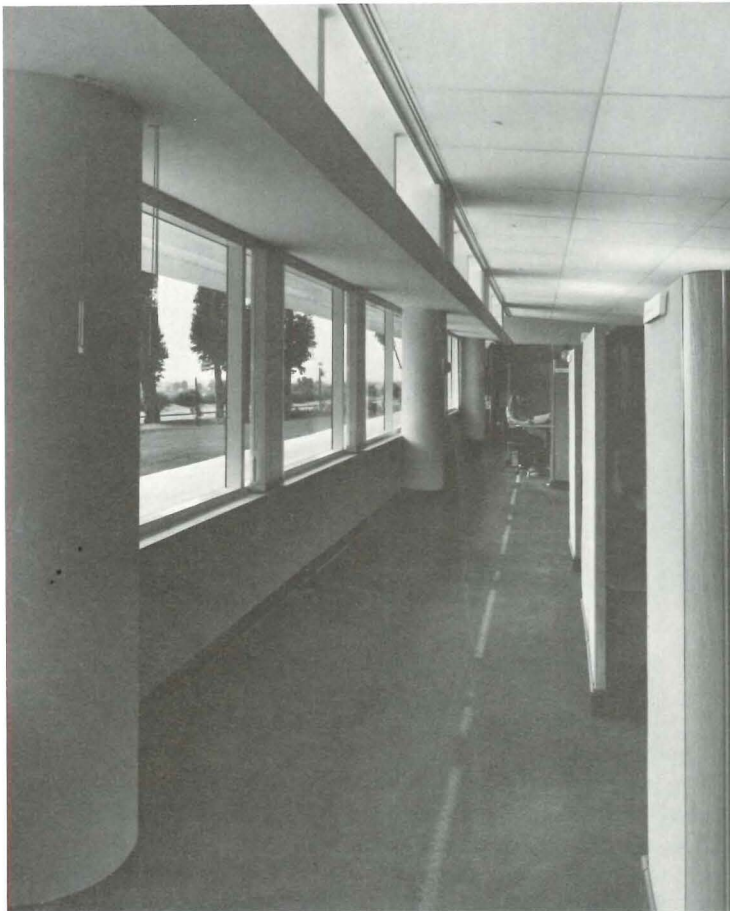
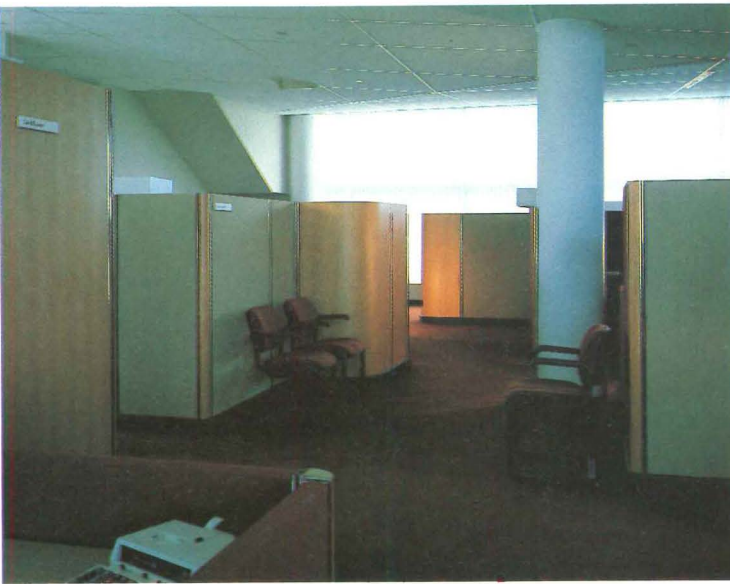
bove, the building's south side with eucalyptus trees that filter light and are pruned to allow views. Left, secondary entrance on the building's north side. Section below illustrates energy conscious design features.

From everything from the best site to building orientation to interior footcandle levels to HVAC energy consumption. The site is a grassy bluff above a freeway, next to processing facilities and farm lands. The building is long and narrow, bending in the middle to conform to property lines, with the major elevations oriented in general north/south directions. Stretching the building provided the greatest perimeter wall area on which light would hit and allowed for a straightforward double-

loaded corridor so that no office would be more than 30 feet from the perimeter. A tall, thick hedgerow of eucalyptus trees on the freeway side was pruned to open up views to the Pacific Ocean and the Channel Islands. The lacy trees also filter low afternoon sunlight.

The major elevations are treated differently in order to appropriately control heat again. The southern elevation is highly articulated with bands of alternating glass and sun devices (which wrap around the east and west ends). Two broad overhangs restrict direct penetration of light, thus minimizing glare and heat absorption. On each floor at a seven-foot height level, a narrow perimeter light shelf, with an open light slot, runs parallel to the facade. Below the light shelf, the glass is tinted green





Light shelves and a down-sloping ceiling.

to further filter light; above, transparent glass acts as a clerestory window.

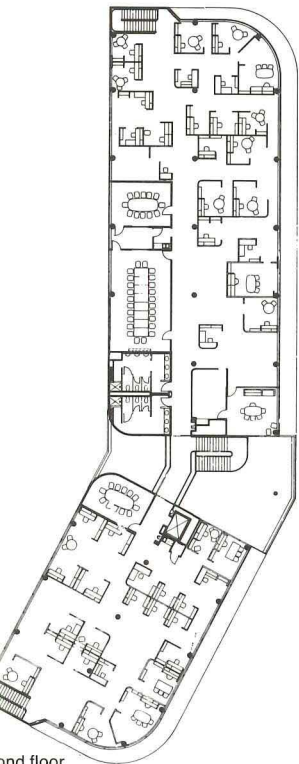
Flush glazing runs the full floor-to-ceiling height along the northern elevation to maximize exposure of light in the morning, the only time the structure regularly requires heat. The window treatment is the same with see-through above green-tinted glass.

An additional large clerestory window at roof height is angled to the north to allow more light into the center portion of the interiors. The top surface of the interior portion of the light shelf is finished as a specular reflector to direct daylight onto the ceiling, above the workers' line-of-sight. The ceiling is sloped

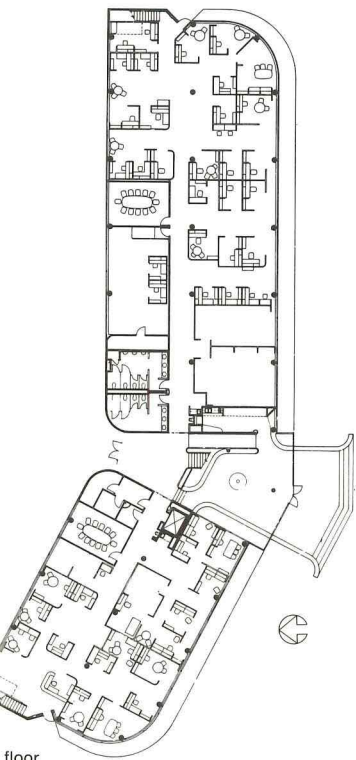
(from 12 feet at the building perimeter to nine feet at the center) and coated with highly reflective material. Vertical window blinds, hung near the windows, can be adjusted to control glare.

Each work station has a task light, and ambient lighting is provided by standard partition-mounted indirect HID luminaires. These are automatically controlled by a system of photocells, zoned according to location in the building.

Even though the building will almost always register a net heat gain, there will be north and shaded zones that will have long periods of net heat loss. Only a 52-ton capacity HVAC system was needed (in comparison to an 84-ton unit recommended under California Title 24 for a similar size, standard building in a comparable location). Variable air-volume, multi-zoned units with economizer cycles were installed. The equipment



second floor



first floor



cross page, natural lighting techniques including flush glazing with diffuser, top left; light shelf with specular reflector, bottom left; clerestory, bottom right; and skylit bridge in entrance court, top right. Above, entrance court.

ent cools with outside air if the return air from the building is a higher heat content. The economizer allows the refrigeration compressors to remain on-line until the heat in the exterior air falls below the level of the conditioned supply air. The space created in the bend of the building serves as a prominent entrance lobby, behind which is a skylit greenhouse/employee lounge. These areas are separated from the offices by glazing and radar-operated sliding doors for both climatic and acoustical reasons. Brick floors, stucco walls, and earth-

filled planters provide a thermal mass. And a system of thermostatically controlled, motor operated louvers provides outside air for cooling. The solar heated air can be either released or reclaimed by the mechanical system and redistributed to other parts of the building.

This comprehensive and progressive energy approach has generated an architectural form with character and visual interest, fortunately not lost in the search for cost effectiveness. Conceived by the architect as a "pavilion in the trees," the building vaguely suggests the streamline moderne style so prominent in southern California buildings of the 1930s. The sweeping bands of overhangs, light shelves, and windows are its decoration, lending a presence that is instantly perceived from a passing car on the freeway below. □

An Environment for Plants and People

In New Canaan, Conn. Architect: Buchanan/Watson. By Michael J. Crosbie



Creating a controlled environment that is hospitable to both plants and people was a problem sensitively solved in this horticultural education facility at the New Canaan Nature Center in New Canaan, Conn. Buchanan/Watson Architects of Branford, Conn., (which won an Owens-Corning award for the design) combined a number of passive and active solar design strategies to serve a dual pedagogical purpose: to provide a setting for large groups of visitors to study plant life and to educate them about the building's energy conscious design.

The building's form is primarily the result of its greenhouse function, although George E. Buchanan, AIA, points out that the geometry relates to the 19th and early-20th century structures that populate the site. "The slopes recall the image of a barn," says Buchanan, which is appropriate in this horsey Connecticut community. On its east end the building connects to an existing stuccoed garage with the use of a green painted steel canopy, which also marks its entrance. To the west an angled ramp (used for transporting equipment and plants to the mezzanine level) works with its canopy counterpart to visually anchor the buoyant building to the ground.

Being inside the building is like being outside, a quality that it shares with another famous New Canaan glass structure. Despite the reading of the volume from outside as one large space, inside there are a number of clearly defined nooks and niches of varying size. There are also a classroom, administrative offices, and other service spaces on the first level. A staircase that appears to float above a small fountain takes one up to the mezzanine level, which provides a commanding view of the greenhouse and its workings.

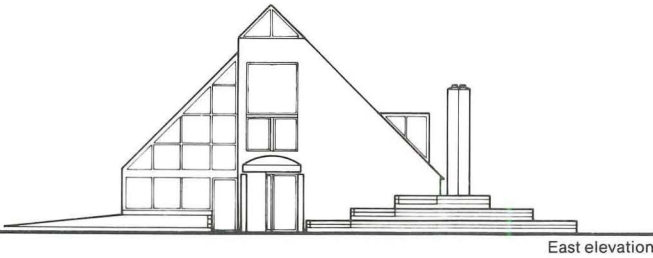
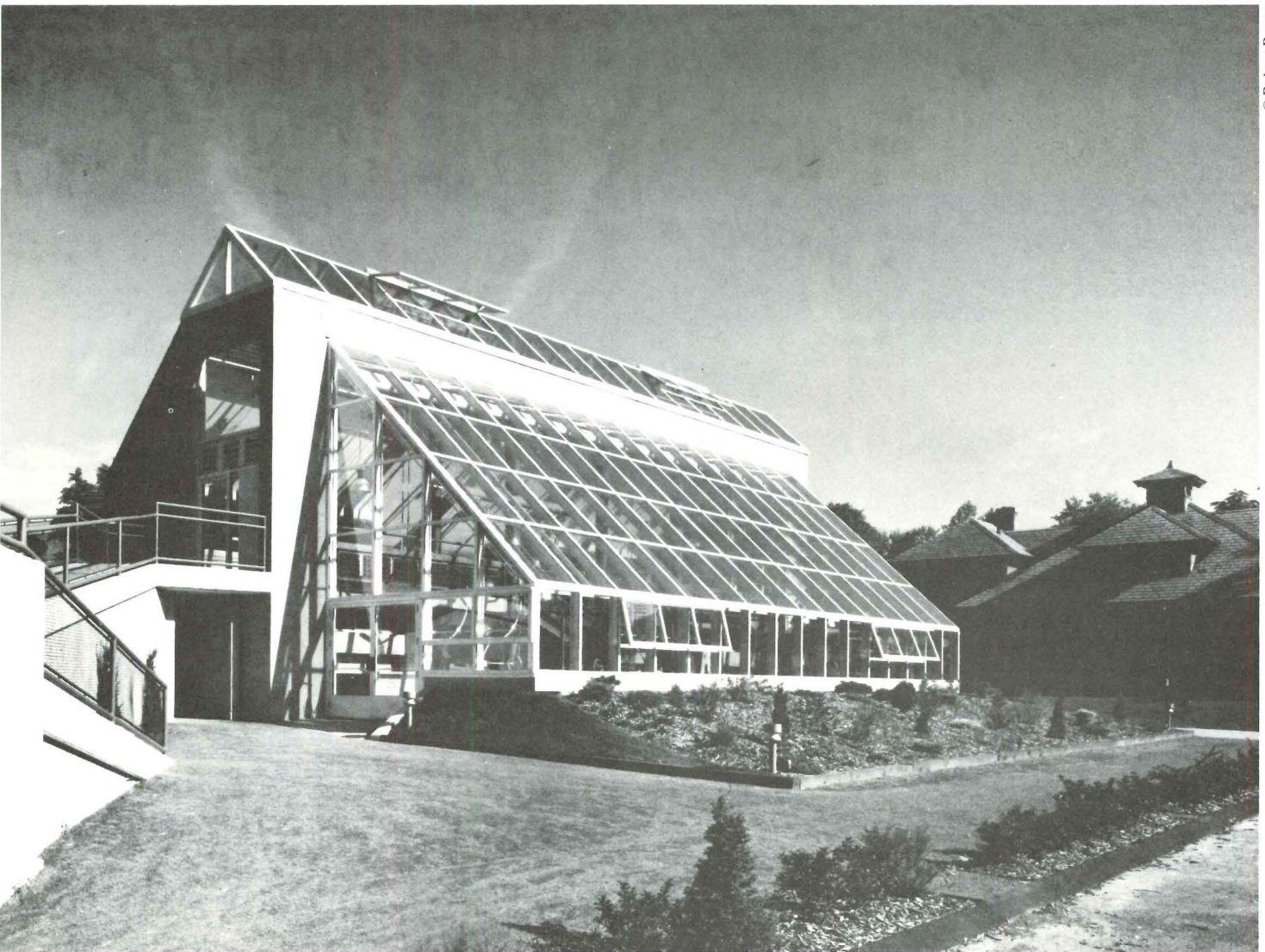
Donald Watson, FAIA, says that the study of how the Romans used the atrium for cooling and how the English replicated growing climates centuries later in their greenhouses led to a combi-

nation of techniques to accommodate the building's human and botanical inhabitants. These historical examples demonstrate, says Watson, "that the microclimate can be controlled by design to provide richly varied places for people and plants throughout the year."

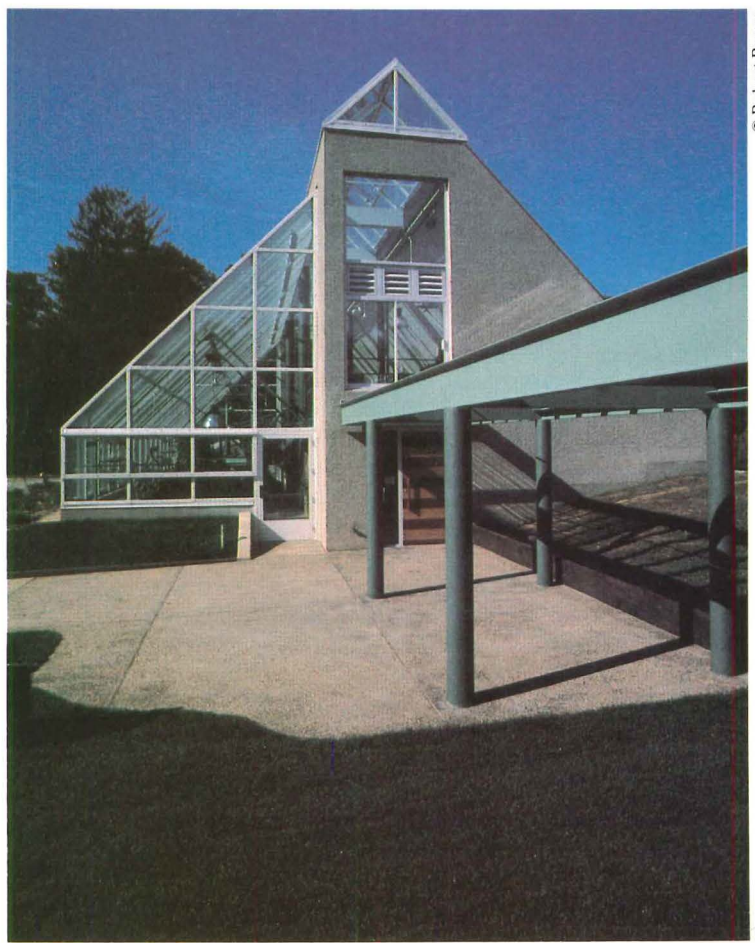
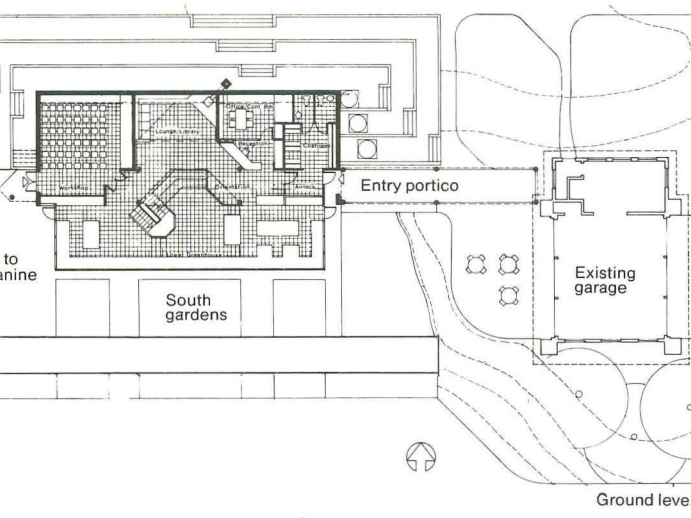
In terms of siting, the south-facing greenhouse is bermed on its north side, reducing temperature variations. In section, the triangular building's axis neatly delineates the use of materials: clear, double-glazed glass to the south; heavily insulated concrete block to the north. The concrete slab is also insulated. Enough radiant heat is admitted in winter to keep people comfortable. On especially cold and cloudy days there are back-up systems—a woodstove, fin-tube radiators, and "grow lights."

In summer the greenhouse is cooled by opening windows in the monitor at the building's apex and at ground level for natural ventilation. Motorized shades limit the heat and over-lighting of the summer sun (they are also used to minimize heat loss in the winter). Hot air collected between glass and shade is exhausted by fans. Sufficient air circulation also alleviates excess moisture that rots leaves and roots.

A rootbed system is used to keep the plants warm. Water heated by solar panels in the monitor is pumped through copper tubes embedded beneath the plants, allowing a constant temperature to be maintained without heating the air—an important consideration in the summer. Temperatures throughout the building, from the monitor to underground, appear on digital readouts in a reception area console, which also displays graphic material explaining the building's energy design features. It is to the architect's credit that this building not only works to serve its varied functions well but also teaches by example, earning its place in the sun.

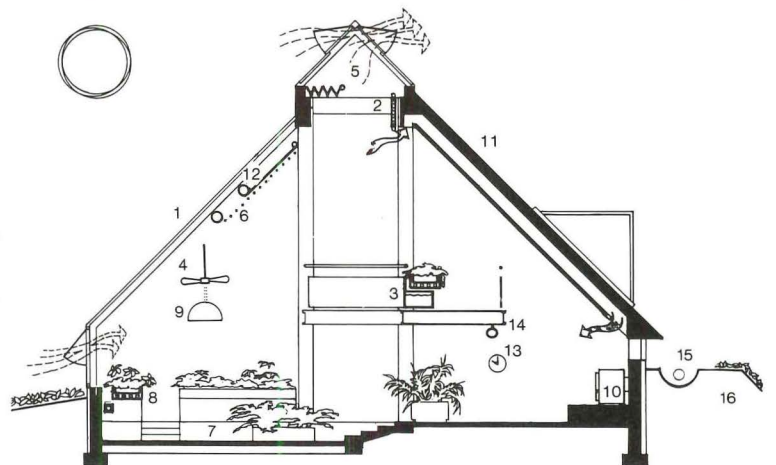


Across page and top, the greenhouse's south face from the northeast and southwest, respectively. Right, view of the east elevation with canopy that defines entrance. The terraced planting in the elevation and plan was later deleted.





Above, the greenhouse's sunlit interior with temperature monitoring console at the right and the hovering staircase in center. Right, building section illustrating 16 of the greenhouse's energy-conscious design strategies: (1) steel and glass greenhouse south wall; (2) solar collectors; (3) eutectic salts heat storage system, which converts from a solid to a liquid with the sun's heat and at night transforms back into a solid, emitting heat through the chemical process; (4) ceiling fans; (5) roof monitor with operable windows for natural ventilation; (6) motorized sun shade; (7) insulated concrete slab; (8) rootbed heating; (9) grow lights; (10) woodstove; (11) insulated north wall; (12) insulation curtain; (13) automatic temperature controls; (14) energy efficient lighting; (15) roof water collector; (16) earth berms. □



Buildings that Draw in Light and Air

an Ohio television facility. Architect: Richard Fleischman. By Carleton Knight III



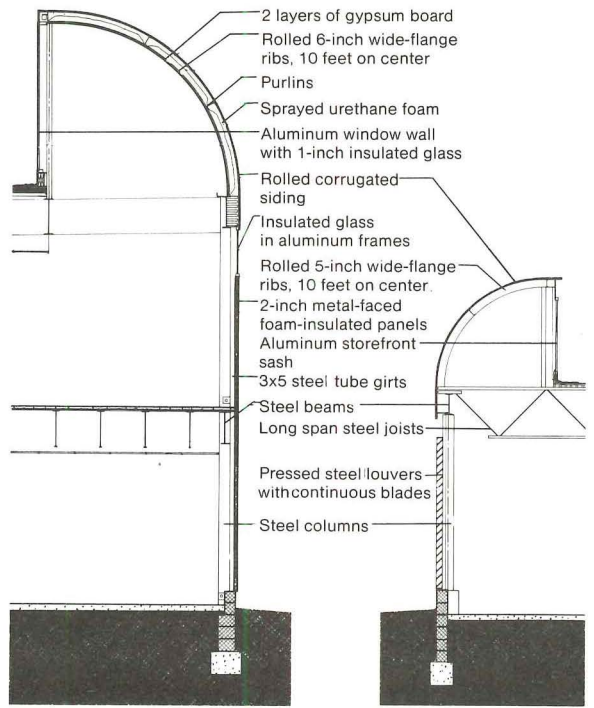
at the Viacom Cablevision regional headquarters in Cleveland Heights, Ohio, turned out as well as it did is a tribute to the magical talents of Richard Fleischman, FAIA. The Cleveland designer was able to apply a little legerdemain to a project that seemed to have more than its share of programmatic constraints, problems that under most circumstances would work against design quality.

The \$1.9 million budget was strict, and the site was complex—oddly shaped four acres of expensive land at the edge of a wooded buffer dividing a shopping center from a residential area. Then there was the program. In addition to the requisite office and administrative spaces, which had to be expandable, parking was required for 100 cars and under-cover storage was needed for 75 service vehicles.

The garage, which takes up nearly one-half of the project's 100,000 square feet, was what required some sleight of hand. The architect insisted that the 75 trucks—minivans, pickups, and cherry pickers—be housed in a building, "not behind a stockade fence,"

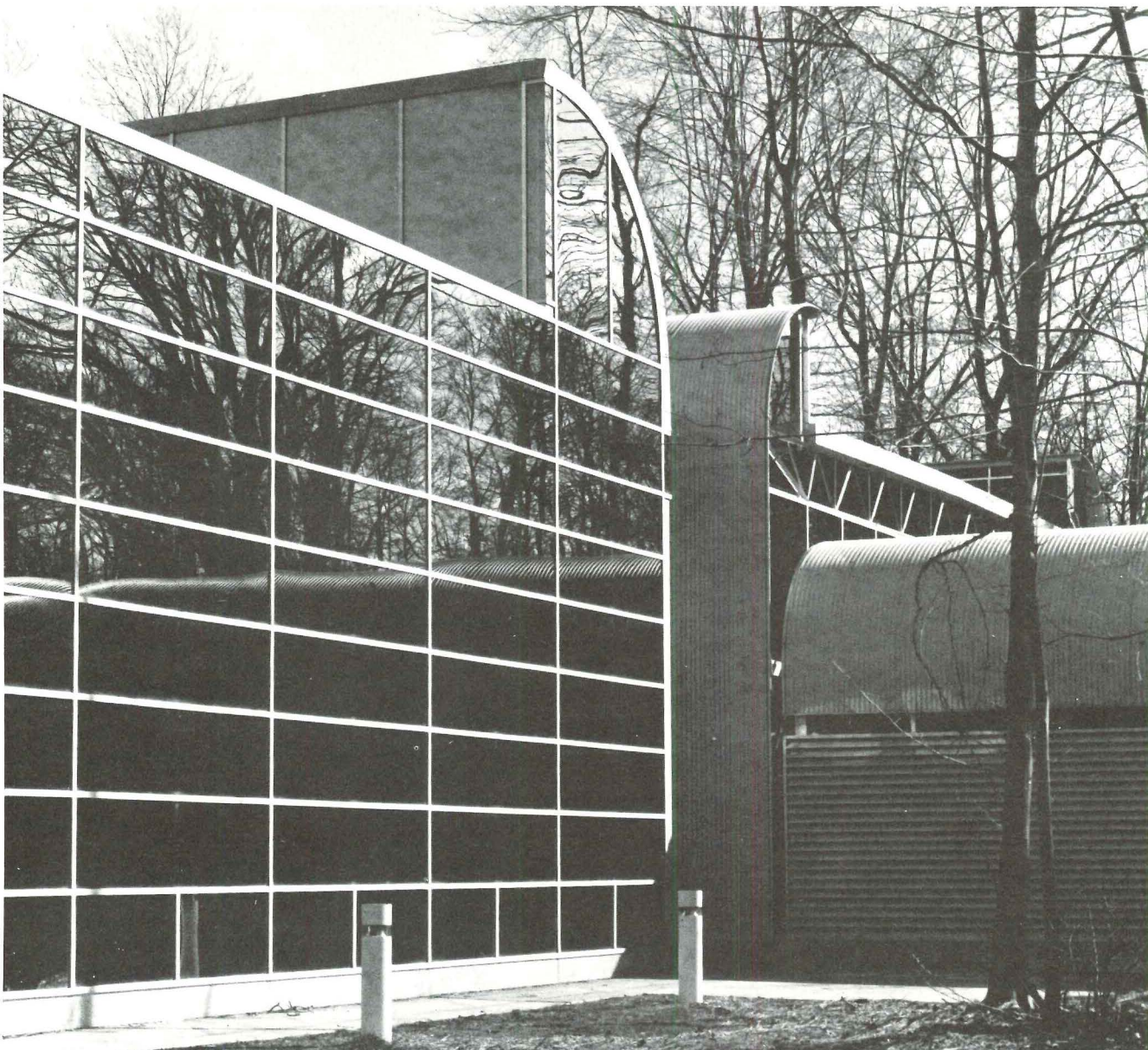
of profile gives building an extruded look, an appropriate high-tech image. Right, the long garage.





Wall sections

Mirror glass sheathes most of Viacom, except for garage, left, where open louvers permit natural ventilation. Roof monitors, section, bring light to interior, bottom right.





Large garage designed as 'an illusion.'

calls the architect. An enclosed garage would require extensive, and expensive, mechanical equipment to remove the exhaust fumes, so Fleischman created what he describes as "the illusion of a building." Steel louvers line the sidewalls of the steel-framed structure while quarter-circle monitors run the full 320-foot length of the two-level roof, designed to accommodate the oversized size trucks below.

While these roof monitors present an unusual and esthetically pleasing profile, they are primarily a significant passive energy device. Strategically located at the roof edge, they, in combination with the dual height interior and louvers, permit constant movement of air, and thus the exhaust is vented naturally.

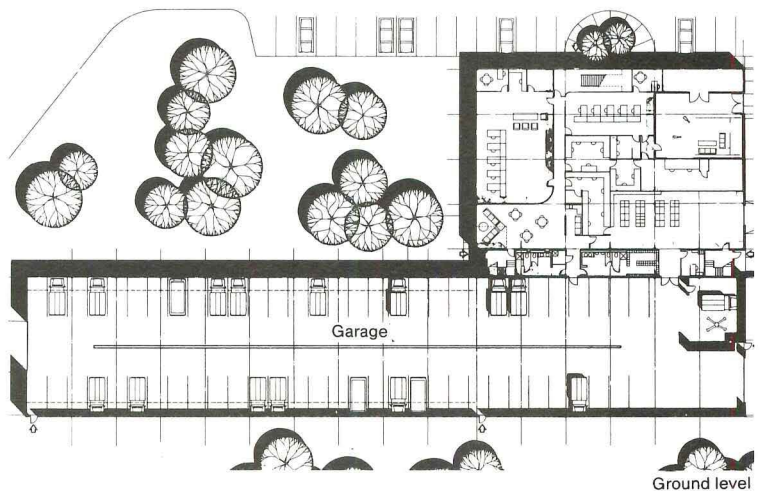
Fleischman expanded on the unique roof of the garage for the offices. "Rather than two opposing structures," he says, "the character and silhouette of each unit is homogeneous, forming a single composition." The monitors in the two-story office section are enlarged from the six foot height on the garage to 10 feet, and once again serve as a passive energy aid, albeit a different one. They act as receptors for light and heat, reducing the need for artificial illumination by filling the open office landscape with light. They also collect a significant amount of solar heat and distribute it throughout the office areas.

Further energy saving comes from the siting of the building and its highly efficient envelope. Mirror glass on the east and west cuts the direct sun load and is aided by the natural shielding provided by the wooded surrounds. The structure is sheathed in steel-covered, foam core insulated wall panels, while the monitors are covered with corrugated metal.

The steel is painted light gray, which tends to make the building recede. Notes Fleischman, "Its stark form, in contrasting color and texture, enhances the natural setting of trees." And at night, the building lit from within in the woods is a delight.

Viacom is proud of the building, showing it off to visitors as an example of what the company can do for a community if it is given the cable franchise. In an industry where most of the buildings to date resemble "concrete-block machine gun nests," one architect puts it, this is proving that quality design can be a powerful sales tool.

But best of all for Viacom was the almost magical price. Construction cost less than \$44 a square foot. And that's no illusion. □



Carlleton Knight III

Conserving and Concerned Design

Senior center, Essex, Md. Architect: The Paul Partnership. By Allen Freeman



Here is a little building that invites quiet description, words like pleasant, low-key, unpretentious, fitting. You'll find no architecture for art's sake, no witty allusions—but rather evidence of intelligent problem-solving, informed by daylighting technology and Swedish and Japanese vernacular architecture.

It is a social and crafts center for older people in Essex, Md. Typical of Baltimore's ethnic neighborhoods and close-in suburbs, Essex is a stable, working class community where succeeding generations rear their families near the parental hearth. So it is not surprising that many of the people who today use the Essex Dorsey Senior Center attended school in the very same structures. By all accounts, they like what was built for them.

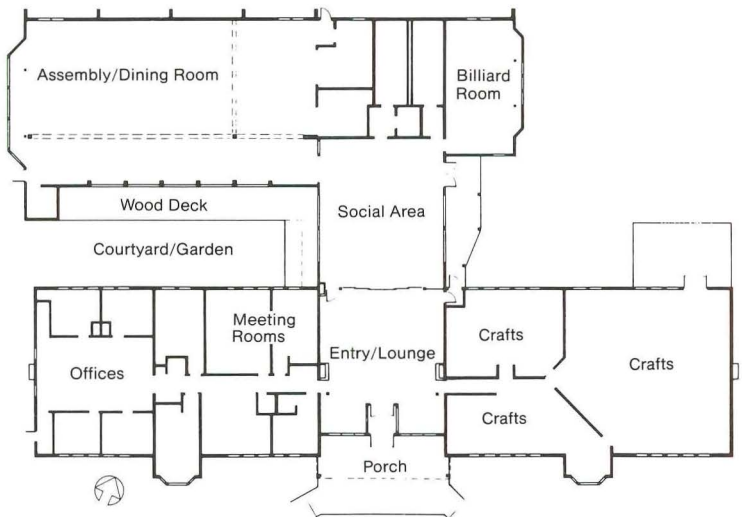
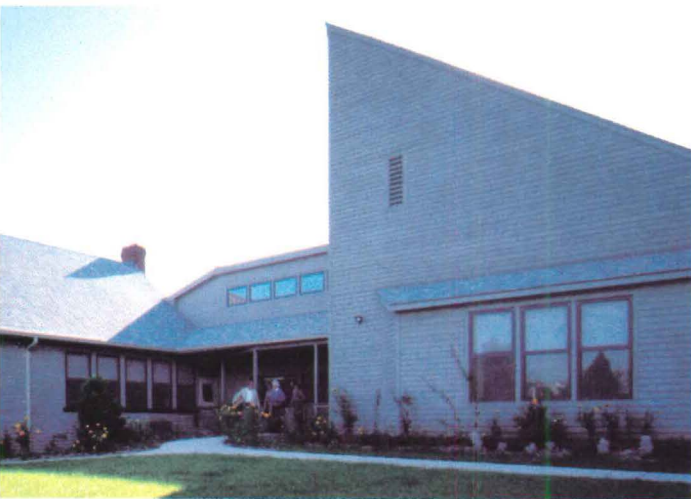
When commissioned to design the center, The Paul Partnership of New York City was given the choice of adapting the pair of two-room, turn-of-the-century schoolhouses or starting from scratch. The architects enthusiastically embraced the concept of reuse, finding the existing 40x70-foot buildings set 30 feet apart "somewhat affectionate," according to Barbara Sandrisser, project designer. Their wood-frame, clear-span structures were sound, and she thought they "sat well" in the community of small, single-family houses with well-kept yards.

The straightforward concept of adapting the schools into a 13,000-square-foot center came quickly and intuitively, agree Sandrisser and Peter Paul, the firm's principal in charge, but refinements and red tape proved painstakingly protracted. Primed by a design grant from the Department of Energy (a small construction grant came later) and a November 1970 DOE briefing in Denver on what was current in passive solar and

energy-conscious design, the architects decided that the design of the L-shaped addition that links the schools would be daylight determined. Actually, the first DOE briefing was of limited help, says Paul, "because they were running what started out to be a heating-based program for buildings in the Southwest." More applicable help came later from a DOE-sponsored review panel held at the Robie house in Chicago where Paul and Sandrisser found designers from the Southeast with experience in design for natural ventilation who suggested using the U-shaped courtyard formed by the new wing—completely enclosed in the first scheme—as an air scoop. And William Larabee, their critic for daylighting, was "enormously helpful," says Paul.

Sandrisser brought to the design a scholarly appreciation of Japanese and Swedish vernacular buildings, attempting to apply both cultures' "sophisticated, intuitive understanding of the uses of wood" and Japanese solutions for dealing with cooling, ventilation, diffusing light, and reducing glare.

The architects decided to strip away two layers of siding from the schoolhouses and wrap them and the new construction in gray cedar clapboard of narrow width, approximating the schools' original skins. They found the old buildings to be oriented for natural daylighting and so retained fenestration patterns, replacing the wooden, double-hung windows with metal units of like dimensions. Also retained were the dormered entrance bays centered on the front of each school, which were converted into window bays. They repartitioned both buildings programming specific activities for each—crafts in one, administrative offices and meeting rooms in the other—and gave



opposite page and immediately above, the back of the center, with light-scooping new wing at right. Top left, the understated front elevation; window bay was schoolhouse entrance. Top right, the multipurpose room with high light source and courtyard access.

Most of the new construction over to three large rooms, each lit by clerestories facing different directions. The entrance space opens up from the south front to windows high on the north wall; the social gallery beyond is lit by east clerestories; and the multipurpose room at the rear reaches high with a south-oriented light scoop fitted with fixed louvers to admit direct winter sun and block harsh summer rays. The fourth major new space, the courtyard, is accessible through sliding glass doors from the long multipurpose room. Its rock garden is one of several readily identifiable Japanese influences. Other are locally crafted pendant lampshades and a sliding interior screen. The rock garden is one of the pleasant surprises tucked away from the building, and it typifies the design's inward focus. Other evidence of introspection is a main entrance so understated that the front elevation of the center suffers somewhat of an identity crisis. In contrast, the virtually hidden rear entrance, reached only from the parking lot, is positioned in the building's most appealingly composed set of facades.

Inside the center, one is first struck by the quality of natural light that bathes the high, sloping ceilings from clerestories. Next observed is a silent, humorous war of tastes: the architects' austere esthetic of white intersecting planes and minimal Japanese-inspired accoutrements versus the users' ideas of homey, literal

decoration. The conflict was anticipated. Comments Sandrisser: "Most Japanese households, at least the ones I visited, were a marvelous combination of Japanese restraint and Japanese kitsch. This is true even in the 'traditional' Japanese house and in many public spaces." At Essex, it is best interpreted as a sign of acceptance by the seniors, confirming their apparent pride in the building.

Still to be determined is how well the seniors will use the built-in passive solar features. To that end, the architects insisted that behavioral variables be included in DOE's evaluation of the building. As Paul says, "It is all very well to put movable insulation in a commercial building, but if nobody moves it we are just going through an exercise in calculation. We think people will like being able to interact with the buildings yet people don't expect that in a public building." The architects are taking an active role in educating the users. Sandrisser is preparing a little tabloid supplement to the county department on aging's publication in an effort to acquaint the seniors with energy concepts.

But perhaps more important than energy savings is the psychological effect this building has on its users. Says Timothy Fagan, director of the department on aging: "This building influences how people feel about themselves, and you're talking about people that have identity problems because they are less valued by society. It is one thing to put up a conventional building to provide programmatic responses to that group. It is another to put up a building that has a message in it about life itself. People feel good about themselves in this space." □



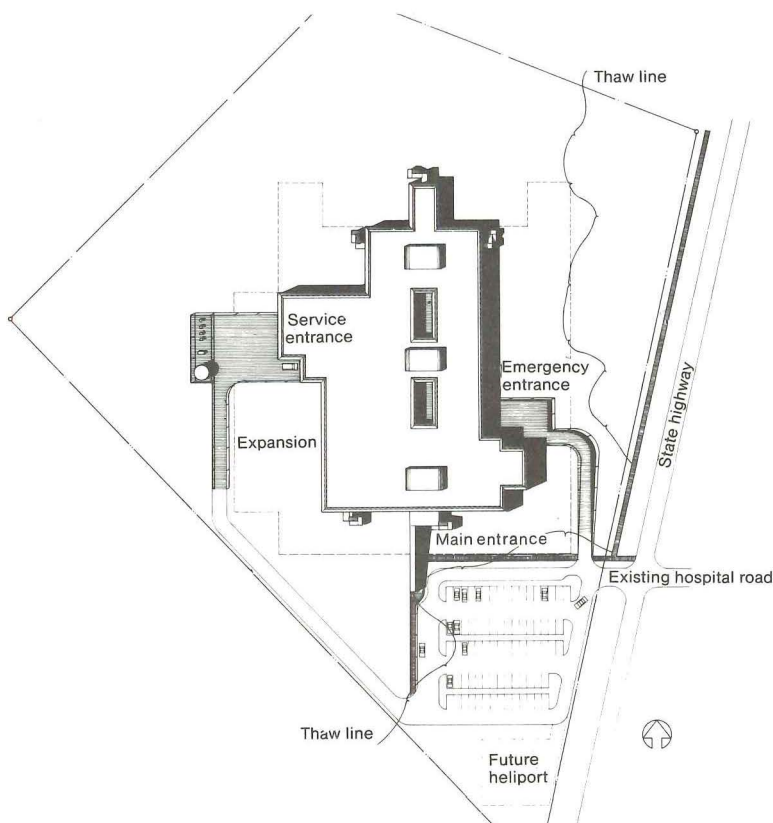
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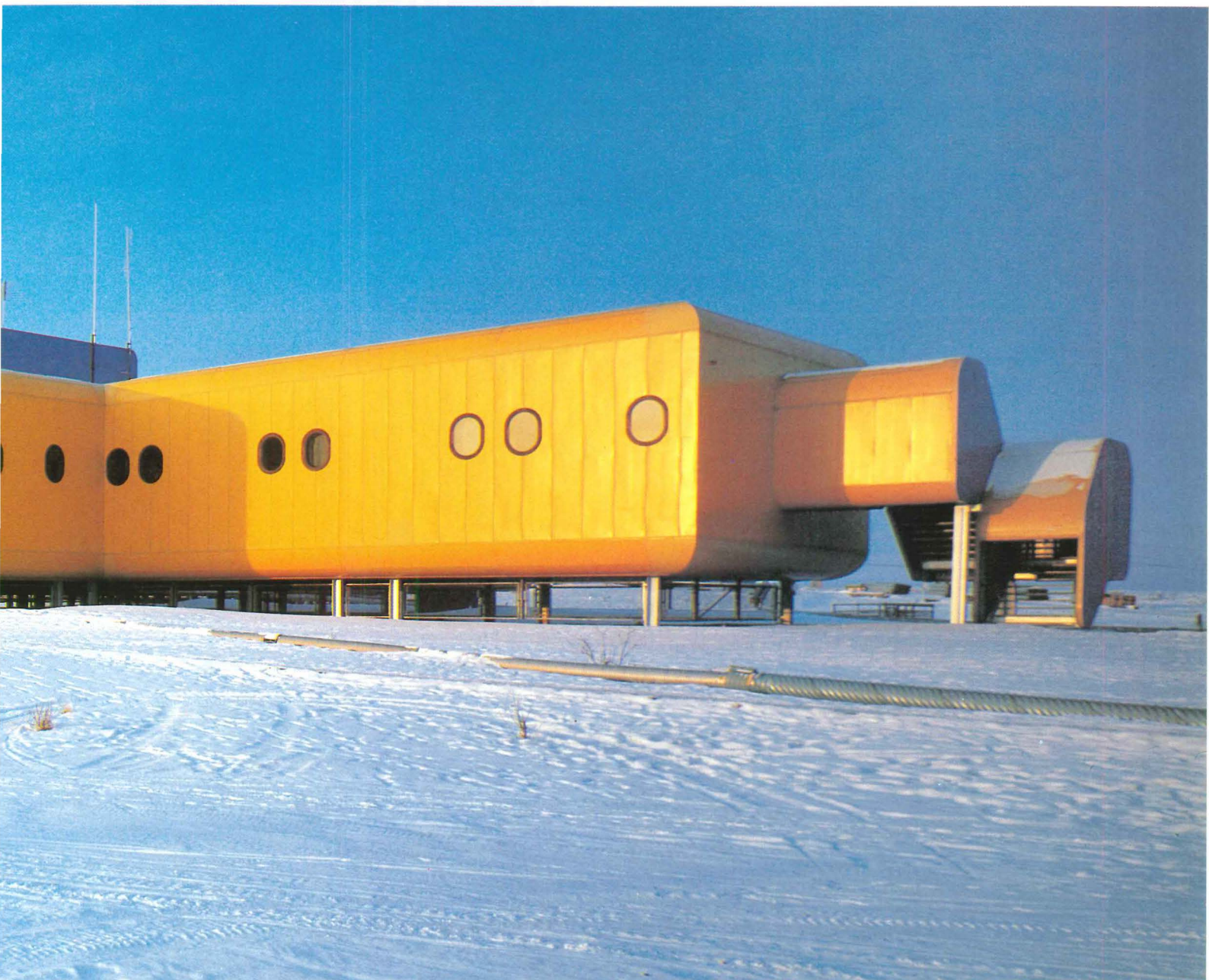
Solving 'Reverse Energy Problems'

Hospital in Bethel, Alaska. Architect: Caudill Rowlett Scott. By Andrea O. Dean

Energy shortage or glut, the first design imperative for Caudill Rowlett Scott at the 95,000-square-foot, 50-bed Yukon-Kuskokwim Delta Regional Hospital was to combat the unsparing climate of Bethel, Alaska, an eternally frozen, remote flood plain 60 miles from the Bering Sea. In fact, initial design was begun in the early '70s before conservation became a popular concern.

Moreover, some commonly used energy saving approaches simply wouldn't work here. For example, the architects ignored the accepted canon of orienting buildings toward the south for solar gain. The reasons are simple enough: Compass points are warped and mean little so close to the North Pole. Also, as design architect Jay Bauer, AIA, says, "It's a nonsolar building in being designed as though there is no sun, and there virtually is none six months of the year." The rule was the fewer and the smaller the openings the better.





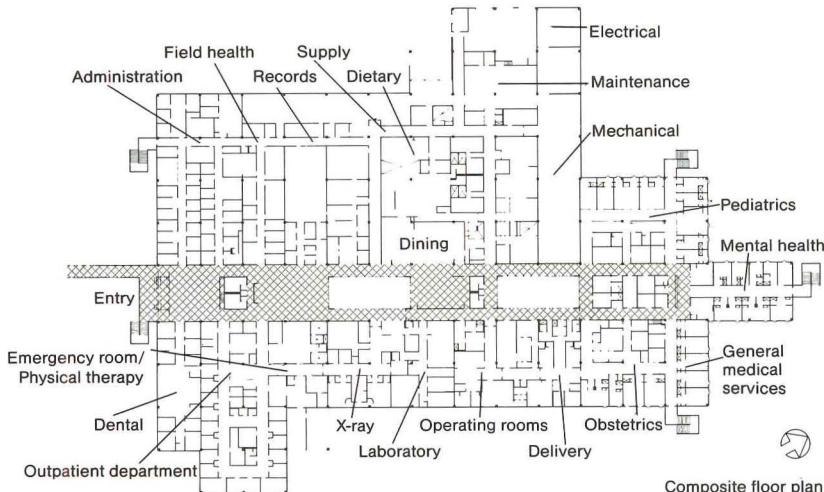
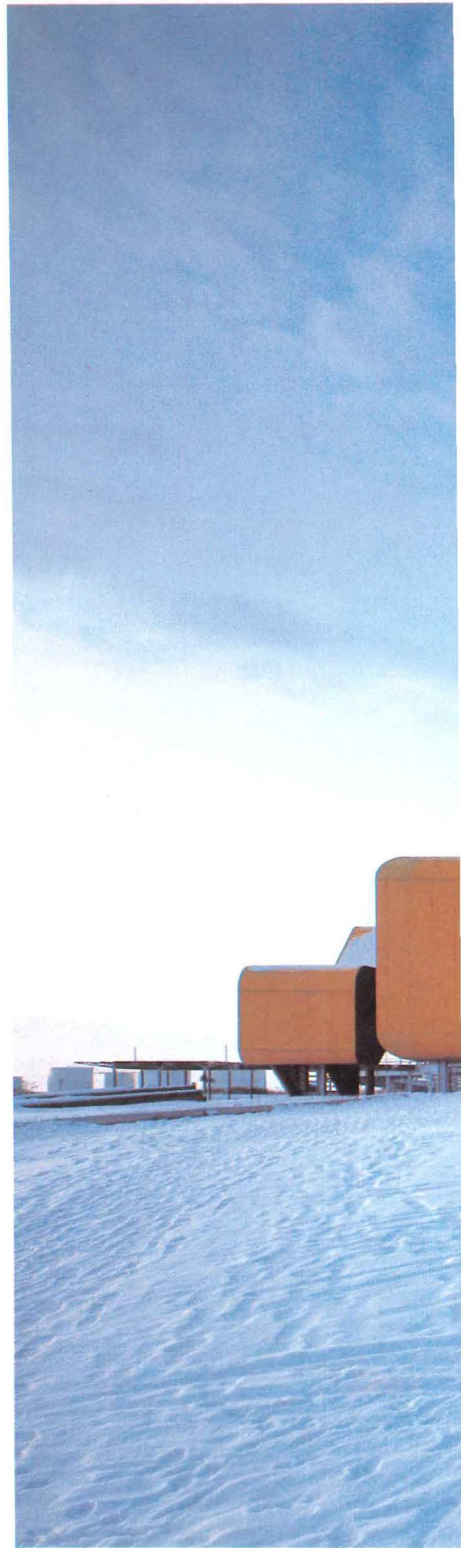
We treated the building like an igloo, like a cocoon," says Kenner. There are, for instance, tunneled entrances that act as vestibules to moderate biting winds and frigid air before they reach corridors, which always face away from the northwest wind to minimize snow drifts. North, origin of the wind, in Alaska, is not only significant compass point, and the one to beware of. The continuous narrow strip of glazing, at Eskimo eye level, takes its cue from native design, sunglasses this time. In the absence of transparent or tinted material, Eskimos used bone or wood added to the face with tiny viewing slits to reduce the amount of bright light from snow and sky hitting the retina. Climate and the hospital's location in tiny, remote Bethel (population 3,576) also determined its image. "We joked about what we really needed up there was an airstream trailer," says Kenner, "something the wind could blow around and under." The original idea was to leave it silver-colored with bright accents—until someone realized this would make it visually vanish into the snow. As completed, the building gleams deep yellow and orange, a low, steel framed, spaceship-like apparition on the white tundra.

Design partner Paul Kennon, FAIA, talks of the image as conveying a sense of "pioneer futurism," which befits its function.

evated, rounded shapes with minimal openings, tunneled entrances, and cocoon-like insulation protect against cold wind.

The hospital serves not only the inhabitants of Bethel but also a vast, sparsely populated catchment area. In each small village of the region are paraprofessionals with two-way radios linked to the hospital. If a patient needs to be brought in for treatment, a bush pilot is alerted, and "you feel this outpost character of the place," says Kennon. "It's almost like a combat zone, but it also has the latest in technology." A geostationary satellite over Hawaii makes remote diagnosis possible at the Yukon-Kuskokwim Delta Regional Hospital by connecting it to a tertiary health care center in Fairbanks. Pioneer futurism indeed.

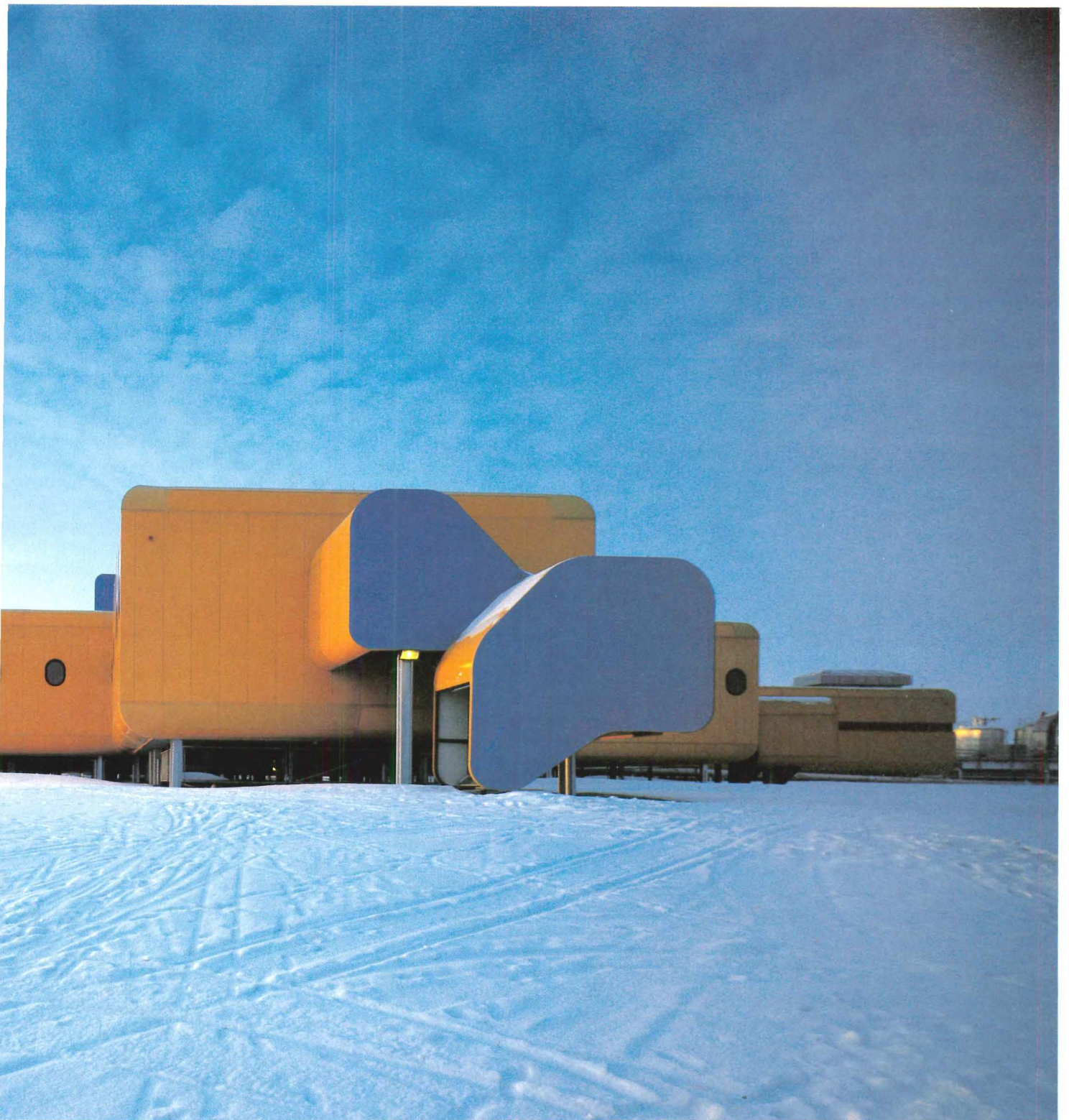
The building is single storied because "the whole context of the tundra plain is horizontal," says Kennon. More practically, elevators were neither technically practical nor feasible. The facility is organized around a central concourse containing public waiting and lounge areas. The genesis and logic of the plan go back to the obsolete hospital this new one replaced. During an initial charrette, Kennon and Bauer found that the townspeople had taken to using waiting areas of the existing hospital as places for public meetings and socializing, since Bethel had no others. In response, CRS designed the main concourse of the new hospital to act as a community center, which it reportedly does. Punctuating it are interior courtyards for natural light and visual relief. Departments that are expected to grow are arranged outside the building's central mass to allow for expansion without disrupting operations.



'It was a different kind of energy concern.'

As a response to a "reverse energy problem," as Bauer called it, the need to keep the 400-foot-deep permafrost from melting and sinking the building, the architects picked up the building off the tundra and insulated its underside to create a thermal break between it and the columns supporting it. Under the columns are H-shaped thermopiles, driven deep into the permafrost. They are surrounded by a tube of copper filled with freon, which extracts heat from the tundra through convection. Subfloor piping and other systems, which would normally be buried under the building, are suspended beneath it and are accessible.

Climate and the building's remoteness also determined the choice of materials. "We had to select a building system that would adapt to the extensive need for insulation and wouldn't be torn apart by a 150-degree difference of temperature between



side and out," explains Bauer. "In a sense, it was a different kind of energy concern, trying to come up with a skin that could take tremendous stress." A light, prefabricated steel frame and clip-on modules were selected for this and still another reason. Because there was virtually no construction labor force in Bethel, and the construction season was short, "we were forced to prefabrication and lengthened construction time," explains Kennon. Building parts were prefabricated in Seattle and shipped by barge during the three short months of the year that the Kuskokwim River is navigable. This meant that thermopiles were driven in place and frozen one season, and not until the next could another piece of work be started.

Above, the north elevation, tightly shut against prevailing winds. Interiors, across page, are organized around a central concourse with waiting areas, top, with interior courts for natural light. All systems are demountable, for flexibility.

Also prefabricated were the mechanical elements that are clipped on to the roof, which is, in turn, upside down and ballasted, says Bauer. "We put the roof underneath and the ballast over it. That way we insulated the roof rather than leaving it out in the cold." There is a very large coping where the elevation comes up and curves over the top, then there's a 40-degree slope instead of a sharp cant. The idea was to eliminate all areas where snow could build up.

"The whole operation was a delicate maneuver," concludes Bauer. "Here we were bringing into a small community in far western Alaska a building whose value was probably 10 times that of everything else in the town. In the technology it offered, it was far-reaching, but also totally foreign. So, we felt we had to speak to the pioneer nature of the people and embrace their native culture, while still projecting an image of the future."

According to reports, the Yukon-Kuskokwim Delta Hospital is the best place to be in Bethel. □

Six from the '60s

Where are the activists now? By James Shipsky

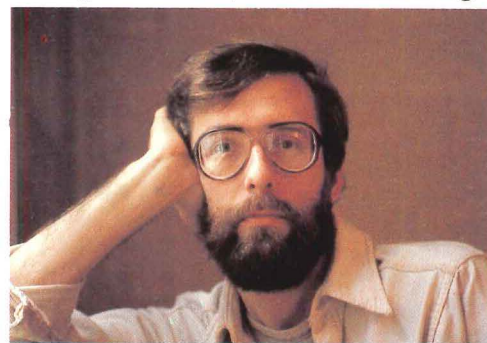
We thought we'd make the world a better place when we got out of the schools of architecture and began to practice. We believed opportunities existed out there. Now 15 years have gone by, and the world seems little improved. What became of our dreams? Here six of us look back on the '60s, searching our stories for clues.

Mostly they're stories about values, one way or another. We grew up in the '50s, accepting the American dream: college, high-paying job, nice house, proper family, community status. But the '60s lay waiting to challenge our consumer self-image.

Do you remember the '60s scene of architectural academia, that imaginary land where architects thought they wielded the power to remake the world? Soleri's Teilhardian super-human shining in visionary cities; Archigram's high-tech obsessions and radical space conceptions; metabolism, megastructures, Yona Friedman; Tange's scheme for Tokyo Bay; C/J/W's Free University of Berlin; the city as line, grid, web, star; new brutalism and British new towns; Operation Breakthrough's industrialized housing; Safdie's Habitat and Kahn's pure ideas; *Design With Nature's* ecology; all on a background of inherited heroes: Wright, Gropius, Corbu, Mies.

I added a steel and glass penthouse to that ivory tower. Reyner Banham says it best in *Megastructure: Urban Futures of the Recent Past*: "It was acceptable to talk about these architectural forms while totally ignoring the social systems that would produce and inhabit them." I uncritically accepted the values underlying these grand and exciting ideas: I did want to make cities into comfortable places; I did want architecture that liberated the imagination.

Along came the energy of the Movement: young men burning draft cards or leaving for Canada; Martin Luther King



Mr. Shipsky, an architect and writer, is currently researching meaning and values in architectural education, practice, and the overall environment.

and Malcolm X; Timothy Leary dropping acid and Richard Alpert dropping his name; hippies hitchhiking to Haight-Ashbury or back to the land to utopian communes; women's liberation; Kesey's *Cuckoo's Nest* and tripping Merry Pranksters; John Cage and Merce Cunningham; Dylan and Baez, the Beatles and Stones singing our deeper feelings. The Woodstock Nation entered the Age of Aquarius.

I was Howard Roark gone hippie: I tuned in, turned on, and dropped out as much as staying in school would let me. I grew long hair and a beard, wore bell-bottoms and boots, smoked grass and dropped acid, marched on Washington chanting Peace Now, and visited communes. I became a vegetarian and conscientious objector. I read Watts, Casteneda, Huxley, Hesse, and the *Whole Earth Catalog*. My sense of self diffused: I was the roadside where litter was tossed; I was a column supporting a beam; I felt wood beams grasping each other in a well-crafted joint; I witnessed the world's creation one morning at sunrise and danced on the beach saluting the sun. Weil's *Natural Mind* assured me these realities weren't in the drugs; the chemicals held no ideas; things seemed different because they were different, limited only by the scope of my mind.

My '50s values went out the window. I didn't want a Ford and a ranch house anymore. I wanted a whole life: worthwhile work, not just for money, integrating my values and life with earning a living. I'd live with an intentional community, not isolated in a nuclear family. I'd work for peace, explore inner space, and question authority.

My new values cast a negative light on the old rules of architectural practice: Make as much money as you can; don't worry what society needs, but let clients determine your primary goal (what and how to build); limit your concern to means (how to build); compete for your share of the work, there's not enough to go all around; gratify your ego with the building's "aesthetics"; accept conventional building types and spatial conceptions.

I'd guide my career by new rules: Architects know best what to build, being experts in built environment and society's needs. They'd design only worthwhile projects that function well, satisfying deep human needs. They'd invent new kinds of environment, surpassing conventional concepts; build in harmony with natural ecology; build low- and middle-income housing that respects the people who live there; build new towns for the new good

life; design consummately well-crafted buildings; get involved with materials, construct with their hands; and go with the flow, for there was enough work to go around. Up in my penthouse, reading the journals, living the studio life, attending the lectures, I thought the profession was already doing it.

My new values invalidated my schooling. I wasn't learning what to build, how to design, or how to build. I was learning to play the design-jury game. I could make it look good on paper, but would it be good for people? I hadn't the faintest idea. I had courses in construction theory: superficial, emasculated stuff. When I graduated I'd be unable to build, produce working drawings, direct construction workers. I was told I'd learn these practical matters during apprenticeship; school was the place for the theoretical, nonpractical. Accepting this, I looked forward to learning the craft during my apprenticeship. How disappointed I'd be.

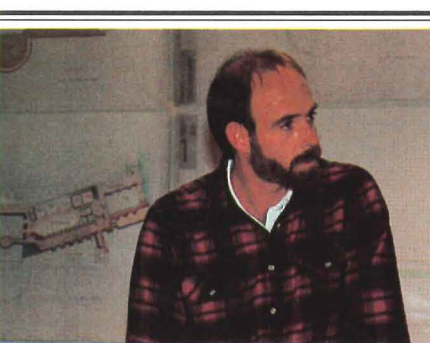
And one thing for sure, I wasn't learning to design and build metabolism, megastructure, new towns, industrialized housing, or ecological anything. I was frustrated, rebellious. Graduation interrupted this time of confusion. Out into the world I went as an apprentice, thinking to do something about building the new world, seeking firms using the new rules. Need I say, I never found one.

My first job was detailing a fake mansard roof, a cedar-shingled facade of plywood, braced from behind with skinny steel angles. Over 13 years I worked with many firms. Always the same story: old rules. I did other things in between: photography, antiques, travel, writing, but was always drawn back to the search.

I didn't know how to learn what to build or how to build. Finally I saw what I desperately needed to learn how to build: the experience of building with my own hands; to smell fresh concrete and carry it, feeling its weight; to build a form and watch it blow out; to feel the symbolic power of pouring concrete; to bolt a steel beam tightly to a column; to smell the pungent crackling of an arc welder and to weld steel together; to fit pipes in tight chases; to cut wood and drive spikes to shape walnut with a razor-sharp chisel; to feel the flimsiness of 20-gauge studs.

But I never learned what to build. No and then came glimmers of hope: In '71 a friend showed me *A Pattern Language* by Christopher Alexander, et al. But using the patterns in designs at firms where I worked, I aroused total resistance. In '71 and '82 I did Arcosanti workshops and in '83 worked there as project coordinator. For a while the dream was real, but not good for my family life; we left.

What to do next? Seek other '60s architects, hoping to find new ways to practice, to build that new world. Cambridge, Mass., was my starting point.



Swain, the principal of Swain Associates, received his B. Arch. from the University of Arizona, Tucson, in '72. He worked with The Architects Collaborative for three years and with a contractor. The Swain Associates brochure states, "under design philosophy, '... sense of joy and delight in every design... passive solar techniques... energy-efficient design.'"

Shipsky: I'm trying to find out what happened to the people who were in schools of architecture in the '60s. What their values were then, and now.

Swain: I have a strong philosophy on what you're asking. I've watched, with a great deal of concern, a lot of my peers who were powerful, bright, creative people in the '60s, very excited about the future. They wanted things to happen. I watched them change rapidly; a lot of their ideals have gone. I've been very frustrated with a small number of people who have been able to maintain their '65 ideals. I know you have to adjust with changing times. Your ideals when you're 12 aren't going to be the same when you're 90; they're going to be some growth in between. But there's a commitment to those ideals I'm very excited about, which could never be abandoned.

I've watched some peers become good businessmen and let go of architecture. They make money, but they don't struggle with the issues that are very critical in our world. I don't mean everybody, I'm just surprised so many drop by the wayside. I saw these people in school and thought, "Boy, they're going somewhere. They're really committed. They worry about theory, the environment, aesthetics, the quality of man." I saw it in their work, in their struggle through reviews. They'd sweat to convince the faculty that values needed to change. And the faculty would say, "Well, that's not going to be affordable; that can't be built; not relevant; it's not intelligent." Now I discover there are only one or two left, my, who are still saying, "You've got to change this." I see the guy who's become a developer, who says, "Well, it's nice doing those things in school, today in order to make a living I have to do this instead." And I wonder what happened to that guy.

Swain made an honest commitment to my values of 20 years ago, and a joyful one.

I've had incredible clients who supported those ideals. I'm committed to the reality that clients are ready to ride with you as long as you do a good job for them. That means dealing with the economics of it, the technology of it, but also the ideals. A client will follow those ideals as long as you're a good businessman. If you're simply an esoteric they'll ignore you.

Shipsky: Can you be more specific about your '60s values, and maybe about peers? Swain: One classmate I immediately think of is Ann Sawyer. I remember Ann 20 years ago looking at the stars of the class and saying, "I can never catch up." I watched her work in Cambridge awhile, then New York. Then she moved to Hawaii and built her own house, while she was pregnant. Her commitment to her '60s values is constantly growing. Her superb house uses catchment water and wind power; fruit trees surround it. She works as an architect doing projects totally committed to energy and resources. Hardly makes any money, but she has maintained her ideals. It's a beautiful and powerful feeling.

'We struggle with a client who wants to aircondition.'

And I watched one of her boyfriends who was considered the shining star of our educational experience. Now he does only development; not terribly high quality, but exceedingly profitable. He's lost any real concern for environmental issues. It's interesting watching the two of them, who liked each other a lot, and see the contrast between them now.

Shipsky: What if I had asked you in the '60s to list your values?

Swain: The other day I looked at a project I did in 1965. It was a floating device, requiring no outside energy. It was sail-driven, rising up and down with the tides. It allowed people to live without airconditioning or electricity. It was the tightest kind of space. One of the things I believe in is that space costs money. It requires materials, energy, time to create it. If a space is designed very efficiently, you can give people everything they need, built of materials responding appropriately to each need, functioning correctly, without wasting resources.

My father is an old Yankee boatbuilder. I remember when I was a kid, watching my father build boats. The hull was cedar without an ounce of caulking, the ribs white oak, the keel Georgia yellow pine, the deck teak, and the deckhouse mahogany. Each wood was purchased green at a very affordable rate, then weathered for two seasons in the salt air. It was all carefully planned. Then he'd use these beautiful woods, each in the exact place

and exact quantity to create a proper boat.

There's an economy I committed to when I was very young. My father helped me to learn that. That economy hasn't changed; we apply it to every project. We struggle with a client who wants to aircondition, showing them how to create a home without it. We struggle with a client who wants a lot of square footage, even though they've got plenty of money. We sit down with them and show them all they need as a result of the program is 40 percent less area. And they learn to understand why that's necessary. Our commitment is, "Is it appropriate?"

We have an absolute limit to resources in our world. To consume every ounce of marble because somebody happens to like it doesn't make much sense. To consume all the oil we have doesn't make much sense. But we still have to feed and house the world, so we deal with these resources as effectively as we can. Twenty years ago I was committed to efficiency; now I understand the social, political, and economic factors in a much better way. I've become tempered in my thinking, but no less committed. Every person in this office, in his or her own way, is committed to these ideals; that's why they're here. Not because they want a job.

Our office has an absolute commitment to saving quality farmland. Farmland is the easiest place to put housing. It's already cleaned up; it's level and ready to use. You just come in with a bulldozer and put housing on it. There's no less a need for housing than there is for farmland. We try to find ways to keep as much as possible of the land in productivity, while still providing the housing. We don't always succeed, but we try.

Shipsky: What percentage of your clients say, "Sorry, but I want a 4,000-square-foot house, all airconditioned?"

Swain: None.

Shipsky: You must be incredibly persuasive!

Swain: Well, I say right at the beginning, "This is why you're hiring me. You've looked at my work; you've come to me for professional services. You've read our brochure. If this is what you want, hire us. If you don't want this, you'd be better off with another architect, and I'll help you find one." And I'll be better off not struggling through something I don't want to do. There have been times when I've been a little hungry because I've done that. In the five years since I started this business, I've only built the ones I believed in. Some were only bathrooms, some were houses. But now I'm getting \$12 million projects. The clients have been remarkable in their willingness to go along with me, as long as I'm realistic about the economics of their business.

Shipsky: That's a positive message for

students, or architects just starting their careers.

Swain: I think it's very real. In a world of shrinking resources, the values that are responsible to resources should be economically successful. Lots of people who have an honest desire for quality honestly want the right thing to happen, but are frequently caught up in a spiral that doesn't let them accomplish it. One of the roles of professionals today is to allow clients to realize their dreams. You take a client and say, "You need 120 units of housing to satisfy a market; you have a gorgeous piece of land that will sell those units. Let's not ruin the land. Let's develop it in a way that will change the market philosophy." Now we're building 120 condominiums on Lake Winnepesaukee that are totally different from anything the lake's ever seen. Our client is selling them off the stakes; we can't design them fast enough. No two are alike, and they're all within budget.

Shipsky: How were you able to keep down your design costs?

Swain: The contractor does all the working drawings and manages the budget. We do esthetic drawings and supervise his work.

Shipsky: There *must* be times when your values collide head-on with your client's.

Swain: Without exception.

Shipsky: What happens then?

Swain: We lose money. On one project we built the house into the site, used 12 inches of insulation, faced it south, gave it natural ventilation with air chambers beneath the building. Then the client said, "We're not sure we can live without air-conditioning." I got them down to unit airconditioners in the office and bedroom, to be used on occasion. It was an honest compromise. We had to show them buildings, take them to naturally ventilated spaces. These little tours cost us money, but we're succeeding. We don't always win. On occasion we end up with a building with ducts installed, so that if we're really blown it, the client can install air-conditioning. Most of our clients say, "If you promise to stick with us to straighten it out if it doesn't work, we'll give it a shot." Sometimes we blow it and we have to stick with it an extra two years to make it work. Or sometimes they get that 10 days of hot weather and say, "We know you don't want to do this, but we want an airconditioner." But then I know we've done everything in our power to take it as far as it will go, and I don't feel bad about it.

Shipsky: What were your values when you were in school?

Swain: I was brought up where the land and sea took care of you. My father built boats and my mother was a gardener. Our goals were simple: to eat well, to live in a nice house. Neither was fancy. We'd spend weekends on an island, eat-

ing clams and lobsters my father caught and potatoes my mother had grown. I grew up with World War II ethics: everybody was getting new cars, new bicycles, new homes. I understood my parent's values, but wanted to reject them, because everyone I went to school with worried about their cars and new ski equipment, and I didn't have a lot of that stuff.

'The world didn't have to be the Arizona strip.'

I'm the first person in the history of my family to hold a degree. My ambition when I went to school was to be successful financially. But I was always being gnawed at, because I couldn't reconcile the two value systems. At school in Arizona I was struggling because my work was still based on my father's boat-building values. It wasn't very acceptable to the faculty. Finally I got very frustrated, quit school, and went to Venice.

Shipsky: How did you decide to do that?
Swain: I got very frustrated with what I call the *PA Awards Mechanism*: Everybody designs based on the current idiom that's between the magazine pages. I couldn't reconcile my Yankee values with the school values. I was in Arizona. Think of a speedway 40 miles long, with neon signs from one end to the other, and drive-in shopping, banking, anything you can drive in and do, all growing endlessly into the desert.

I saw a notice on the wall that said, "Study in Venice." At that time I had the delight of spending some time with Louis Kahn, who was strongly supporting young students going to Europe. He said we needed a radical departure from our experience in this country. We needed to see the historical premise. He said Venice was a city without cars. Corbusier loved Venice. It was a very intense environment, compatible with my upbringing. I'd see how a city over 1,000 years old has responded to the sea.

I figured out how much it would cost and found it would be cheaper than Arizona, because the state school in Italy costs \$25 a year. You had to study in Italian, so I took a summer course, packed my bag, and headed to Italy. When I went to Venice, I went home.

Before Venice I'd been a mediocre student. When I came back to Arizona for my degree, I made dean's list carrying one and a half times the normal workload. I realized my value system was supported by Italy; I wasn't wrong. The world didn't have to be the Arizona strip, nor did it have to be my mother's garden. It could be my own abilities, plus my education, ideals, energy, and belief in history, giving me the vision I needed.

Then I could produce my architecture.

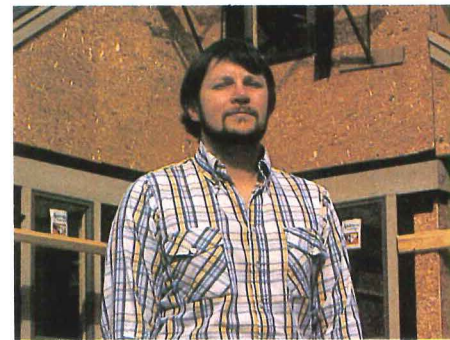
Shipsky: What are your goals now?
Swain: I want to do a \$500 million project. I don't believe my ideals are crazy. They're an honest commitment to participating in humanity, as opposed to wanting the world to accept my fantasies. I participate with my client, with my fellow workers, with the environment, and we produce a product. Those are my grand ideals, and I want to take them as far as they will go.

Shipsky: Are you familiar with Alexander's *A Pattern Language*?

Swain: No.

Shipsky: What changes do you see in those '60s values?

Swain: In the '60s we thought systems and technology could make anything possible. We seem to have backed away from that in recent years, away from utopian visions and living pods. Our values in the '60s were naive responses to complex problems. Our big challenge is to translate those naive beginnings to real values in the '80s.



I first met Tony Ferragamo at Rensselaer Polytechnic Institute, where he acquired a reputation for voicing his content with the curriculum and faculty for his involvement with '60s issues, for being a colorful character. He and his friends shared a love for rambling through wild areas, driving jeeps, sailing catboats. They generated an air of barely contained energy straining to burst free, and who knows-what form it might take next. Tony had been dating a woman from Chicago whose family owned a big old house on Martha's Vineyard. They planned to be married at the edge of a Gay Head cliff, then leap from the precipice to a reception on the beach below in a hang-glider. Tony had constructed of bamboo, polyethylene, duct tape, and hose clamps.

I hadn't seen Tony for 13 years, and I was most curious to learn what he'd been up to.

Shipsky: Tell me how you got into architecture.

Ferragamo: My grandparents were Italian immigrants who couldn't read or write or speak English. My grandfather worked on the railroad. My father left school at the third grade to help support the family. He wasn't big on buying me presents, but he gave me tools and taught me to build

ats and treehouses, how to fish, garden. encouraged me to explore and seek adventure. He wanted me to go to MIT, study chemical engineering, and become a great success. I would be the first of 40 grandchildren to go to college.

In my high school years I worked with craftsmen, who did things the old way: a mason and a carpenter, both perfectionists, with impeccable skills. I worked in a sweater factory, thinking it would help with mechanical engineering. I had a fascination with motorcycles, devoured everything I could learn about them, worked as a motorcycle mechanic, built a drag bike almost from scratch, and set an unofficial world record.

I lost interest in chemical engineering. I took a battery of those tests that tell high school seniors what they should do, and I was advised to be a bowling alley mechanic. I found an old AIA brochure in the pamphlet rack in the guidance office and decided to study architecture, against the advice of my guidance counselor.

Freshman year was a whole new thing—living in a dorm away from home, encouraging new ideas. I had a lot of conflicts with the design professors. I excelled at technical stuff, but they wanted the shy design approach. I was questioned on other issues: How do you build it? How do you take care of it? At the end of freshman year the dean told me to try something else, that I had no future in architecture. I decided to study mechanical engineering and either become an amusement park ride designer — because integrated technology with art, motion, people doing things, durability, safety, and play with how you fold those things up and transport them—or a grand prix race car designer. I never considered the demand for either of these professions, for my father had taught me to get something going first, then iron out the details and shortcomings later. Work hard at it, use your skills, but don't let theories and bad work at the outset become a roadblock to actually doing.

I tried mechanical engineering, but it wasn't for me. I pleaded with the dean to let me back into architecture, but he said, "No." I went to the dean of the institute, who got me back in, and who began scrutinizing the school of architecture. He found that while the schools of engineering were exploring the new technologies to solve new problems, the school of architecture was only training us to be lifters or facade designers. This got me no more trouble.

Shipsky: What were your values when you entered the school of architecture?

Ferragamo: I thought to myself, "I'm going to be an architect. Now that's a class profession. I'll have a beautiful office overlooking a harbor, beautiful furniture, a beautiful car, and a secretary right out of

Penthouse. I'd lean back in my chair, adjust my stereo, and gaze out at my yacht. My clients would be sheiks and important people from all over the world. They'd hire Tony Ferragamo because he's the greatest architect in the world." Shipsky: You still sound enthusiastic about all that. How have your values changed?

Ferragamo: I became a close friend of a professor—Norman Waxman—just before he died. He changed my head around. He told me there would come a point in my life when I would work just to be in architecture, that the money and headaches would fall by the wayside. It was like a metaphysical explanation that I latched onto.

Shipsky: What's so great about being an architect?

Ferragamo: I can't figure it out. In seven years of practice I've faced phenomenal pressures and setbacks. You don't pull good work out of thin air. I find myself working on these projects with such incredible enthusiasm, discipline, diligence. My reward is in what I'm doing. It's hard for me to tell anyone about it beyond that. Waxman really got it all rolling.

Shipsky: What did you object to at RPI?

Ferragamo: I felt jealous because I never fit into the cliques, the in-groups. I felt like an outcast. The students doing glossy, window-dressing architecture with lots of visual pizzazz were doing real well with the professors. Those who wanted to chew at issues were doing terrible. I remember a review of an elementary school design. I had clustered groups of four classrooms around a common resource area, rather than stringing them along a corridor. The boiler room was enclosed in glass at the

'I began to see architecture as more than a trade.'

entrance, so the kids could learn what heated the building. The jury thought I was out of my mind. The more I tried to explain it, the worse it got. I went back to my apartment feeling really low. Waxman came by that evening and said, "Look, I think you had some good ideas. But you've got to realize this school is not for the creative, fertile mind. They want to crank out conventional architects who will keep producing a conventional product." At the end of sophomore year I decided RPI was too restrictive and transferred to MIT. MIT's approach was that the world was changing and evolving, and we'd need to understand that evolution in order to contribute professionally. While keeping an eye on esthetics and history, we were encouraged to explore the future, the broad range of society's needs—technical, political, social—al-

ways realizing that architecture is part of a larger continuity. MIT gave me the opportunity to extend the method taught by my father: exploration. The studio was a forum for sharing ideas. It was a very different atmosphere. Once in that pasture, I could graze a lot more, developing a healthy approach to what I was doing. I recalled Waxman's words and began to see architecture as more than a trade. Plus Boston in the '60s was a very fertile place, a melting pot of global concepts, values, approaches.

I never had the sociological architect approach, saying that I'm going to rebuild the cities for mankind or I'm going to evolve a system to house millions of poor people. I think those are noble and valid things, but that has not been my approach. I thought about that a little in school, but I didn't get caught in it. I wanted to do something that contributed, but I didn't know what it would be.

After graduation I couldn't find work in architecture, so I worked as a field engineer erecting radar screens in Africa, the Caribbean, the Indian Ocean, the Arctic Circle. Later I worked with several architectural firms before going on my own.

Shipsky: What are your values now?

Ferragamo: I want to design buildings that really serve their purpose. I want to give my clients what they're paying for. Our houses are built properly: The floors don't squeak, the seams don't leak, nothing's out of square. I've developed a super-insulation system I call HEAT-LOC. A 2,200-square-foot house built here on Cape Cod using this system cost \$150 to heat last winter, using gas. Another one of 1,800-square-feet cost \$90 to heat with electricity, with no woodstove or other heat source. We developed the system to be easy for ordinary contractors to build well. I don't care if I lose money on a job, I'm going to do the job I agreed to do. My clients know they're going to get their money's worth. I don't want to give my clients bills that I can't justify based on services, and say, "Well, you owe me that because I'm an architect, and you've got to pay for my college education."

I want to deliver a high quality building, within budget, without a lot of construction problems. But the pressure is phenomenal. I used to work about 80 hours a week; now I'm down to 50.

I've always loved technology, hard work, doing things properly. Cape Cod is an environmental challenge. Energy is very expensive. How do you provide for growth without destroying the environment? I feel this is the heart of architecture's role today. How do you accommodate people's short term needs without producing long term problems? I believe in disarmament and similar big issues, but I have limited time and cannot afford to spend time on the large issues in an active

way. I am happier and more productive when trying to figure out how to provide more homes without polluting the ground-water, or trying to solve the problem of solid waste disposal.

Shipsky: Where do you see yourself in five, ten, twenty years?

Ferragamo: I hope I'm still in architecture. I hope I won't have to work as hard. It wears you down, the constant strain; it sours your attitude. You can't do good architecture if you have a bad attitude. Maybe I'll get more involved with teaching. But I don't know if I can leave this. It's like an addiction.

I'd like to do one house a month, and one sizable project each year, with no pressure. Just sit down and enjoy each moment of it. Don't get me wrong. I enjoy it now, but there must be a way to do it with less tears. That's what I'd like to find. I didn't know where I was going seven years ago and I ended up here. It's kind of an adventure for me.

Lance Gardner Biesele



Joe Fama is the director of TPA (Troy Professional Assistance), a community design center in Troy, N.Y. Quoting from their brochure, "TPA provides design and planning services to low income people, neighborhood groups, and other nonprofit organizations who wish to improve their homes, buildings, and neighborhoods."

Shipsky: Joe, what were your values like in the '60s?

Fama: I had a sense of a new generation about to take over the country and maybe the world. My values were based on ideas of a redistribution of power and wealth in this country, participatory democracy, antimaterialism. I had and still have a healthy interest in anarchy.

Shipsky: How does your work differ from a conventional architectural practice?

Fama: We work directly with low income people, which I don't believe private firms ever do. There is no owner or group of principals who acquire a profit. We have a very different office structure, there's more of a collective atmosphere. More participation by the staff in decision-making.

Shipsky: What about your values today?

Fama: They haven't changed much since the '60s, but my sense of tactics is different. There is a whole different set of battles to be fought today. My age is different: I'm 35, not 20. Twenty-year-old people, even with the same philosophical frame-

work, react differently to things. The '60s put the spotlight on 20-year-olds; the times called for a response only 20-year-olds could make with the required enthusiasm. Now we're 35, and if the circumstances were the same, I don't think we would be the leaders; I bet they'd be 20-year-olds.

Shipsky: What are your career goals?

Fama: That's a tough one. Friends often ask me when I'm going to get out of what I'm doing and start doing something meaningful. I guess I don't have any career goals, other than to respond to situations as they come up. I have no objective to broaden or expand what I'm doing.

Shipsky: Do the terms New Age, futures, ecology, networking apply to your work?

Fama: Our work is too street-level to plug into any broad theoretical framework. We just have problems to be solved.

Shipsky: What are some of your accomplishments since graduation?

Fama: A newspaper reporter once said that people like us exist by little wins and big losses. Here are some of our bigger little wins, since my graduation in '71. Our Hoosic Street Bridge was built at about a third the size of the original proposal. We got funding and renovated a multiservice neighborhood center; spearheaded resistance to diverting funding from community development to urban renewal; did architectural work for hundreds of low income people and dozens of nonprofit organizations; and completed a 120-apartment, \$3 million project.

Shipsky: Do you feel your classmates have managed to keep their '60s values, or have they joined the establishment?

Fama: I've always been bothered by the way the '60s were portrayed in the media. I don't believe the '60s were anywhere near as radical as the media led us to believe. I think the people who seem to have given up their '60s values never had them to begin with. They turned out much the way I would have expected at that time. I think the people who were affected by those events have a good, healthy sense of skepticism toward authority. Those who over-reacted to the times came out with a sense of cynicism, which I think is unfortunate. My belief at the time would have been that they would join the establishment. Some of those people who did join the establishment now act surprised at the fact. But I think they are romanticizing and exaggerating the level of radicalism they espoused at the time, and I'm not really sure why they're so stunned that they are now practicing a conventional brand of architecture. I think some people were very positively affected by the events and thinking of the '60s, and I think they carry that with them. I don't think they've thrown it all out the window. What you think of the buildings they do and the projects they work on depends where you're sitting.

Shipsky: How have your values evolved?

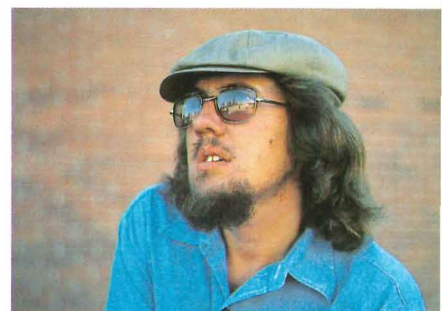
Fama: Energy conservation was an embryonic cause, at least to me, as I graduated. Now it's probably the second most important consideration for us, after our needs. The women's movement was a part of my overall thinking. There were a lot of personal insights that movement brought to light, that had to be addressed in all aspects of our work, and have become part of the principles on which we work.

Shipsky: Do you maintain some sort of academic, theoretical, ideological stance in your work?

Fama: Not really. The day-to-day grind issues don't call forth those ideals for sharpening. They're up there in some mental attic, still motivating us, but to be honest about it, they're probably in need of a dusting and polishing.

Shipsky: Do you feel there is any hope of conventional architectural practice evolving to the point where it can "... release the skills, enthusiasm, and sense of commitment that many architects possess but cannot use in any satisfying way" (Malcolm MacEwen, *Crisis in Architecture*)?

Fama: American architecture is part of the basic culture and economic system, and you can't beat the system unless you beat the person who makes the rules. Architects, quite obviously, and I'm glad, do make the rules. They are fated, therefore, to provide whatever services the rule-makers want. If you try to do anything else, you're going to limit your clientele. There's nothing wrong with that, but so one else will step in behind you to do design work on most buildings. Some architects try to respond to this challenge by trying to become one of the rulemakers. I have yet to see anyone who succeeded at this without becoming a clone of the kind of person they were trying to emulate.



I heard about Will Bruder when I was at Arcosanti. I saw a 10-year retrospective of his work at the Tempe Fine Art Gallery, was enthusiastic about it, and looked forward to interviewing him. I met him when he brought his class of youthful designers to tour Arcosanti. I talked at his New River, Ariz., studio. concrete, steel, and glass structure carefully fitted into the high desert.

Shipsky: I understand your degree is sculpture, not architecture, because y

nted to avoid the stereotyped ideas of
nools of architecture.

uder: Not exactly; let me explain. My
gree is in sculpture, but throughout my
llege years I was training myself to be
architect. As a child I was attracted
building and design. General Motors
d those contests where you sculpted a
r out of a block of wood. I entered
ose from the time I was 12 and won a
. As a result, I was accepted at Gen-
eral Motors Institute. It is an accredited
engineering program, where you go to
nool six weeks, then work in a GM
ility six weeks, earning \$14,000 a year,
ck then. I wanted to be an industrial
signer; it was a good education, and I
ed the hands-on approach.

But during my first work session I went
rough a strike at a Fisher Body plant. I
as shocked by management's values and
ecided this wasn't my bag. I wanted some-
ing where I had more personal control.
ne day I'd be designing cars, and the
xt day toasters. The whole chemistry
asn't right. I didn't like the values of
g-business America. Maybe that's tied
o '60s thinking. It was '65. I wanted
chitecture. I had watched Frank Lloyd
right's Greek church under construc-
on near my home. I had been attracted
art and shop classes in high school.
I applied to Illinois Institute of Tech-
nology and got a temporary job with Wil-
m Wenzler, an architect in my home
n, probably the most progressive of-
ce in the state then. Sheer coincidence,
re luck of the draw. Michael Johnson,
e chief draftsman, in his mid-20s, was
architecture freak. Had an unbeliev-
le hand, and he took me under his wing.
ichael was building his own house at
at time, a clone of a Usonian house. So
xt I'm moonlighting with him, pound-
g nails on his house. I remember zero-
gree weather, putting in glass stops.
aveling around, looking at Wright
ildings, drawing, building models, sur-
ying. I was getting this sort of thing
ppening.

Suddenly I was accepted at IIT. I
atched my head and said, "This is a
etty good experience. What the hell do
want to go to IIT for? I'll enroll in a
urse at the University of Wisconsin,
d see what happens." The university
ln't have a school of architecture then.
ook math and structures in the engi-
ering department, architectural history
d sculpture in the art department, but
/ whole focus was architecture. They
ve me a degree in sculpture.

I was taking a full course load, work-
g with Wenzler 30 to 40 hours a week,
ing carpentry with Michael, traveling
look at architecture: a lot of Wright,
hn Andrews—Scarborough, the whole
ronto scene, Macy Dubois, Ron Thom.
nocked on a lot of people's doors. Mi-
ael got me plugged into Soleri. I did a

workshop in '67; got married in '68 in
Wright's church in Madison, drove from
the service through the Midwest looking
at Wright and Goff, spent a couple of
days with Goff, which was a joy, pro-
ceeded through Oklahoma overdosing on
Goff, and went to work with Soleri for
seven months. Went back to finish school,
and found Wenzler wouldn't have me
back.

Shipsky: Why not?

Bruder: I had turned into this rebel, had
worked with Soleri, my hair had gotten
longer. So I went to work with Michael
while finishing school. I put together a
portfolio and started a Greyhound bus

'Hey, this is crazy, I want to go back to the Arizona desert.'

junket, to apply for work with John
Andrews, Macy Dubois, Ron Thom, Louis
Kahn, Roche-Dinkeloo, Paul Rudolph,
Victor Lundy, and Gunnar Birkerts.

Shipsky: How had you selected those
architects?

Bruder: This was my value judgment on
where I wanted to work when I got out
of school. Their philosophy of work, the
quality of function and form, the way they
used materials, a spirit in their work I
thought was fresh. The Canadians just
blew me away—that was architecture.

I had written these architects and said
I was coming. I got off the bus in To-
ronto at dawn and washed up in the bus
station. My first interview was with Ron
Thom, who offered me a job. Walked
across town to Macy Dubois' office, which
had no desks, only drafting boards. His
attitude was, "You show me yours and
I'll show you mine." We hit it off famously
and he offered me a job.

I canceled the next loop of my trip,
went to Detroit to see Birkerts. There
was really good chemistry between Gunnar
and myself, and he offered me a job. Can-
ada required a formal architectural edu-
cation before I could be registered, so I
took the job with Gunnar, thinking I'd
go to Canada after being registered in
the U.S. I worked as lead designer di-
rectly under Gunnar on the Houston Con-
temporary Art Museum. That winter I
was in Canada looking at architecture. It
was so cold the film broke in my camera.
I said, "Hey, this is crazy, I want to go
back to the Arizona desert."

I wanted a population base of a mil-
lion people in which to establish myself.
I wanted to be a free man, to practice
with integrity. I went to Phoenix to do
my apprenticeship. The last architect I
worked for let me go my own way, try a
lot of things, stumble and fall; some

things worked, some didn't. As soon as
I hit Phoenix I started picking up clients
on my own because the whole focus was,
the day I had my license, I walked.

I took the exam as soon as I could
and passed it the first time. If you're going
to be an architect the exam's nothing.
My first studio was a \$1,000 addition I
built onto the apartment where we were
living. I started with patios, interiors,
renovations. I was out with a power saw
and hammer on a lot of the early jobs.
Shipsky: Your first jobs were quite a step
down from projects you worked on in
larger offices. Were you ever tempted to
return to an established firm?

Bruder: What for?

Shipsky: When did you first have a clear
image of the kind of architecture you
wanted to do?

Bruder: Almost from the beginning.
Wenzler's office was very strong, there
were good things happening there. Wright
—I've been to over 250 Wright buildings.
I read a lot, started my library when I
was 18, spending a couple hundred dol-
lars a month on books. Michael Johnson
was a good influence. Soleri let me go
through his notebooks and his sketch-
books. They have cast aluminum covers,
and 400 pages ruled so you have this much
to draw on and this much to write on.
They're mind-boggling, like Da Vinci
sketchbooks. Paolo is a mind.

Paul Schweikher was an influence;
Michael made me aware of his work.
Schweikher is a second generation mod-
ern master. Louis Kahn studied with him
at Yale when Schweikher was doing pre-
Kahn Kahn architecture. Then when I
was working in Phoenix a blueprinter told
me some guy from Pittsburgh was living
up in Sedona and did unbelievable
drawings. I was supervising a job in Flag-
staff, so I drove through Oak Creek
Canyon; I had no idea where Schweikher
lived. I saw a building profile ahead and
walked up to it: Schweikher's house. I've
had a nice relationship with him for the
past 11 years; I'm working on a book
about him. I've seen work of his that he's
never seen finished. It's architecture that
just doesn't quit.

Goff—I've been to 75 percent of the
Goff houses and done a lot of research
on his work. Wright dumped all over the
first Price scheme. Can you imagine de-
signing a building and having Frank Lloyd
Wright tell your client it's a piece of shit?
And having to regroup? I mean that would
be pretty devastating, a major setback. I
think it was the turning point in Goff's
career.

I went to Vancouver and spent four
days overdosing on Arthur Erickson, met
him, spent time in his studio. Tomorrow
we're going to San Francisco. We went
to Mexico City in June. Stayed at the
Camino Real by Lagoretto. Met Augustin
Hernandez—don't know if you've ever

heard of him. (Jumps up to get a book.) Look at this, it's his studio! And look at this: a 28-foot-diameter dome, acrylic glued together with silicone. There's no framing in that sucker! This guy has been working for 30 years and been ignored by the American press. How can Hernandez exist in Mexico City and I don't know about it until three years ago? And I think I know a little bit. So I developed a friendship with him; he's coming to Arizona in the fall.

I have a client in Minnesota, so I went to the site for three days; went to see Wright's Willey house, David Bennett's underground library. Up to Toronto for three days, had no business doing it, but I wanted to absorb it and meet Macy again, see all the new things. Flew to Buffalo to work with Bird Air on a fabric roof I'm doing, and because I was that far east, I flew to Pittsburgh to see Schweikher's Duquesne Building. Got in at 5 in the evening, opened my hotel window, and there it was on the horizon with all its monitors glowing. Walked over there at 9:30 and hung around till midnight.

Guess that's the way I like architecture. Shipsky: How much time do you devote to self-education?

Bruder: How much time is there? Right? It's a daily experience. I get a lot of publications, I read a lot. I want to know what's happening. Not to copy it, but to grow, to enjoy it. So again, what is that time?

Shipsky: How did you relate to what was going on in the '60s?

Bruder: Basically against the war, marched in a few demonstrations, marched in an open housing protest with Father Groppi in Wisconsin, stood up with Paolo at the federal building, when he went down for his weekly homage before that was real popular, marched in the first Earth Day.

I don't drink or smoke; I've never taken a drug in my life. How can you get higher than on life and architecture? Never was into the commune thing. Married Simon when I was 21 and we've been together 15 years. Got a 1Y deferment; don't know with my Midwest conservatism if I'd have had the guts to say screw it and go to Canada.

Shipsky: During the '60s did you think these experiences would affect your architectural career?

Bruder: In looking back on it I tend to see myself as having been more selfishly focused on doing architecture and building. I guess there was a certain individual rebel quality in the music of the times. You saw that you could be an individual, you didn't have to be part of the pack. I took that course. My parents encouraged me not to travel with the crowd. When I became an individual, and I think I'm an individual, I marched for open housing and against the war, worked with Soleri,

let my hair grow. Then I wasn't the individual my parents had in mind. But I think they're proud of me.

My grandfather was a cabinetmaker and tinkerer; he had a workshop in the basement. I've got a lot of his tools.

Shipsky: How do you relate your work to Paolo's philosophy? I mean, wouldn't he condemn it?

Bruder: Oh yeah. He has not much interest in the individual building. That was evident way back in the '60s. If you'd ask him, "What do you think of Saarinen's art center?" he'd reply, "What should I think?" It's not very relative to reality and to life is what he thinks. There's a greater thing to be answered in his mind. Paolo's never been good with money or socializing; he's always been somewhat remote. I'd love to see any one of the arcologies out of the MIT book built. Let it be Paolo's concept, but let some big office do the details, finish, and finesse. Give Ben Thompson an arcology and say, "Detail the sucker!" and let the Rouse Co. build it. It would be dynamite! Paolo is a genius as an engineer and architect, but I think the social and political implications are where the problems lie. His mind works at a scale we can't comprehend.

Shipsky: What's your advice for young people wanting to be architects?

Bruder: Gain knowledge in the craft of building, gain respect for the craftsman, know the limits and how to go beyond them. Work in the field at least a year, construction: Dig ditches, pour concrete, pound nails. People come out with a degree and can't lay out a building—that's a crime. There's something wrong with a system that allows that to happen. Plug in a full year of travel: Canada, Mexico, ruins. Gain a design sense through a fine arts background: sculpture, printmaking, color, texture. Get the basics of two- and three-dimensional design. My art background is much richer than what I see them teaching in architectural design at the university here. And focus on people, world culture. But I don't believe a conventional architectural education will make or break an architect. There's a certain destiny; you're not going to be stifled. Your education should give you as many tools as you can get in that period. I don't see a masters or Ph.D. in architecture; your masters and Ph.D. are your first buildings.

Architects should be able to build anything they can draw.

Shipsky: Where do you go from here?

Bruder: Last fall I had the good fortune of going to Italy, where I saw Scarpa's cemetery. I shot 400 slides in two hours without a motor drive! I think it's the finest piece of architecture of the 20th century. It tells me there is a big beyond. I haven't reached any kind of potential yet. I learned a lot from the Italian experi-

ence, about buildings in relationship, in a landscape. I want to do groups of buildings, more innovative uses of materials, experiment more, do some fresh thinking, use the scrap brick in the grog pile at the brick yard, use rammed earth sod roofs, bigger things, and smaller things. I want to keep doing architecture, and do it better. I want to organize and simplify so I can do more owner/builder work. You know, I tell an owner/builder to build a curved wall and it's not nearly as hard as telling a contractor to build a curved wall.

I want to do planning, more public work, learn more about solar. Learn more about Japan, China, and Eastern influences. Travel more. You think you know something, but you really don't know anything. I've got an awful lot to learn.



Elias Velonis is not an architect, he studied literature in the '60s. He has some fresh insights for architects. Six years ago he founded Heartwood, an owner/builder school in western Massachusetts. I met Elias for lunch at Buckstreet Manor, an old resort hotel now part of Heartwood facilities.

Velonis: What is the architectural community's response to *A Pattern Language*?

Shipsky: The ones I've asked have never heard of it.

Velonis: I'm so surprised it's lost. I think it's the greatest book on building and environmental planning ever produced. I've been using it four years now. The first time I tried it on a design class, everybody sat up! It's such rich material, it teaches itself. The response has been universally positive, except for a few architecture students. People come up to me after the class, almost with tears in their eyes, and say, "Now I know! I felt all that in my bones, but I didn't know how to say it."

Architects seem to have lost a real sense of what the people who use a place are going to go through. They're building monuments to themselves, or something flashy or the latest or most daring. But they're not building from the humble origins of what the needs are. I think architects say, "We're constrained by efficiency, economics, modular building practices, speed, labor costs." So the work gets totally di-

continued on page 1



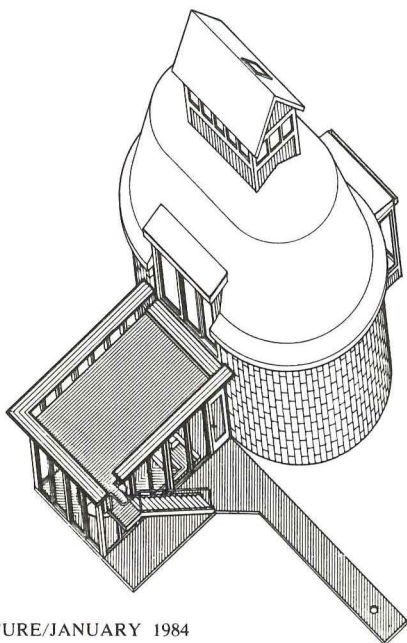
Small Victories

*A collection of buildings that are far larger in quality than size,
starting with a skillfully remodeled former corn crib*



Corn Crib to Country Retreat

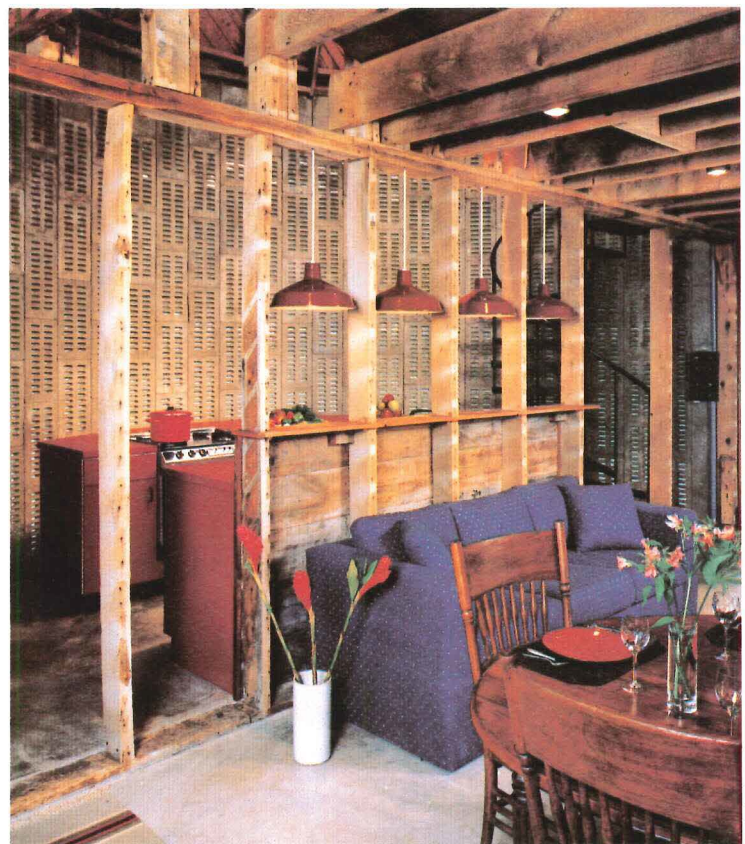
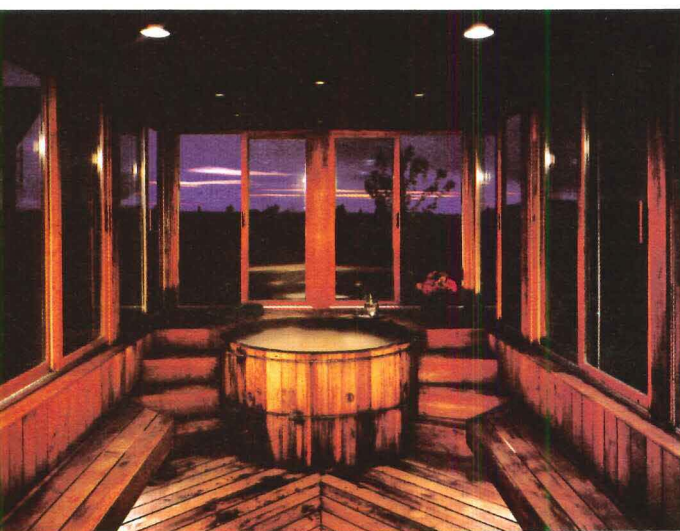
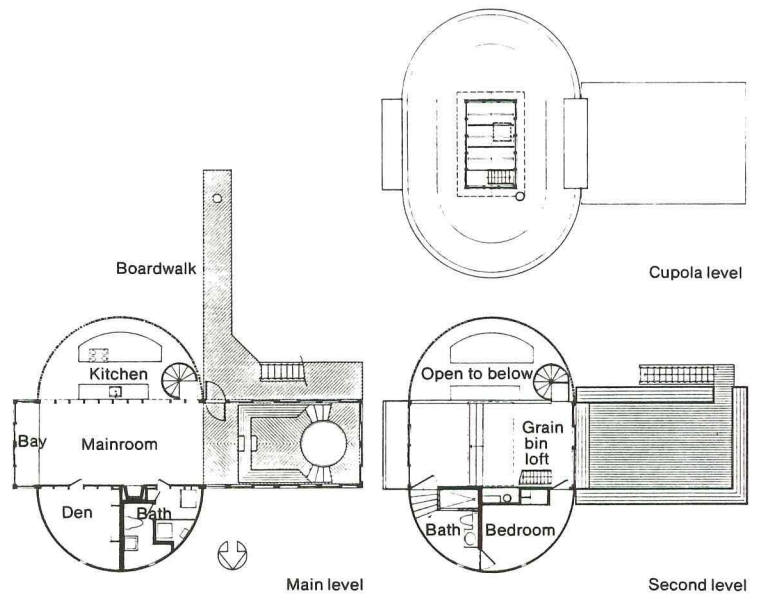
*In Polo, Ill. Architect: Bauhs & Dring.
By M.J.C.*



A corn crib, built by the Mendota Silo Co. in the 1930s, was the only structure left on a farm in Polo, Ill. Bauhs & Dring, Chicago transformed the crib into a country retreat, complete with a hot tub, large spaces for entertaining, and a cupola on top. In its original form the corn crib comprised two semicircular drying bins of precast block joined by a drive-through. The odd roof shape was the result of clearance needed for swinging a conveyor chute from side to side, which filled a solid wall bin with small grain and a perforated wall bin with large grain needing more ventilation.

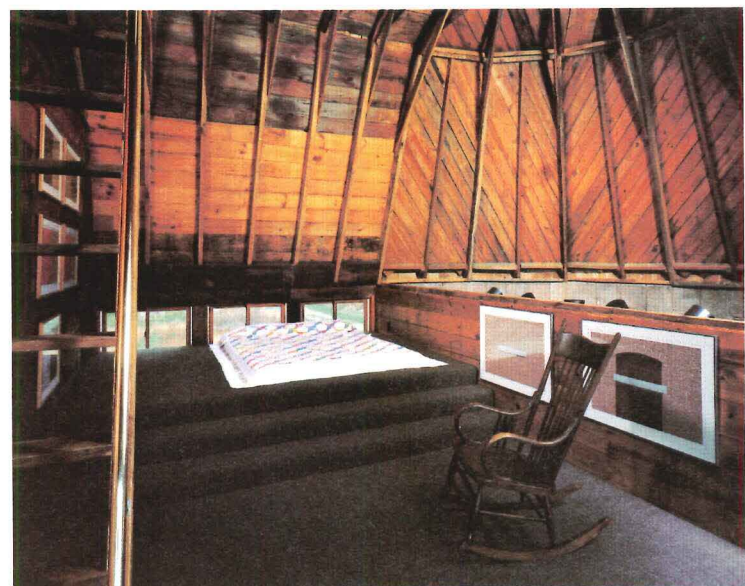
Architect William Bauhs says that the most important and difficult aspect of the project was preserving the quality of the air inside the crib admitted through the perforated wall. "The client came to me saying 'How are we going to plaster over that wall,'" says Bauhs, who convinced his client otherwise and then experimented with how to keep the weather out. Lining the wall with sheets of plexiglass and neoprene tubing didn't work. Close inspection of the block revealed that all the perforations were exactly the same size, and each had a drafted edge, necessary for removing the block from the form. "We used that drafted wedge in pieces of clear acrylic," says Bauhs, each measuring three inches by one-half inch. "My client got his father, who retired, to actually put them in the holes," Bauhs says—all 4,752 of them.

Because of the wall's southern exposure Bauhs placed the kitchen next to it but kept all the cabinets below counter level to let the sun shine through into the living and dining areas. The wood in the building is original and was steam cleaned and then spray varnished. Showing off the roof structure was an important consideration, says the architect, so spotlights were installed to illuminate it.



...ss page, the context of a corn crib turned country retreat. ... view from southwest showing glazed hot tub room with ... on top; above, the tub room from within. Right, kitchen ... living with perforated block wall and original wood; bottom, ... structure from the loft space with ladder to cupola at left.

...o a spiral staircase from the main room is a loft that over- ... s the kitchen. The loft level has a bedroom and bath. A ... s ladder takes you up into the glassed-in, skylit cupola. The ... ight is operable for ventilation, its original function. The ... ola's wood floor was removed and replaced with a heavy ... t of clear acrylic. This allows the cupola to be used as a ... out, while light passes through the floor to the levels below. ... ns admits that walking around in the cupola can be a dizzy- ... experience as you look down past your feet to the loft and ... kitchen below. "My wife won't go up there," he says. ... if either end of the original drive-through is a window bay ... the hot tub room, respectively. Each is glass-ended to allow ... s completely through the building, an aspect of the crib ... the architect wanted to preserve. The proportion of the ... room mirrors perfectly the proportion of the original drive- ... ough. Bauhs says that this was done so that the addition would ... as a slot of space pulled out from inside the building. The ... itself was made from an old Napa Valley wine cask, remilled ... varnished, still showing its stains from the red wine. ... ne roof of the tub room is a deck, accessible from the loft ... n outside stair, which allows views of the surrounding ... ntryside. Bauhs notes that the deck was elevated out of ... ssity. "When corn is in tassel you can't see anything from ... nd level, so you have to go up on the deck if you want to ... the horizon." Another pleasure of retreat in a cornfield. □





Stylish Addition To a Farmhouse

In a rural pocket near Chicago. Architect: Frederick Phillips. By Regan Young

"To me, the property and area are a very poetic statement of the Midwest," says architect Frederick Phillips, and it was this quality that he sought to retain and underscore in adding to and remodeling this old farmhouse. It is surrounded by farms though little more than half an hour from Chicago's Loop.

The program called for a new living room, entry, and bedroom, and for reshuffling existing spaces. Phillips saw his task as bringing order to a chaotic plan that had evolved over years of additions and changes, without losing the "unsought for spontaneity" that was the real charm of the house.

Exterior materials and roof forms are derivative of the original turn-of-the-century farmhouse and later additions. The living room is a square set at a 45 degree angle to the rest of the house and in section is an eastern extrusion of the master bedroom wing.

The addition is ruptured by several odd angles, the most significant of which is a wall that reflects light into a window behind an interior bookcase and continues out into the yard to become a free-standing wall, reminiscent of the way Wright placed low walls into the landscape to destroy the box. It also alludes to more contemporary work in its playfulness and wit.

Mr. Young is an architect and freelance writer in Chicago.

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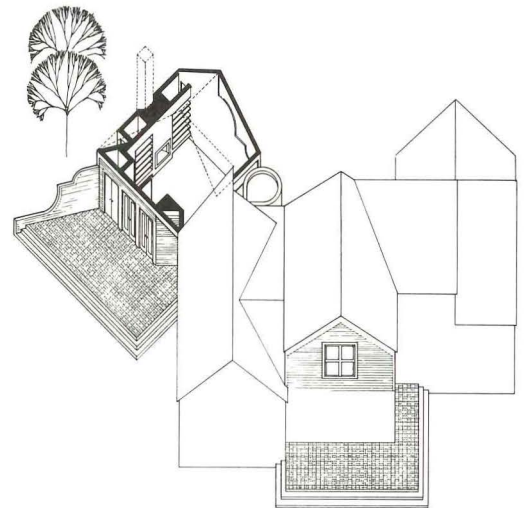
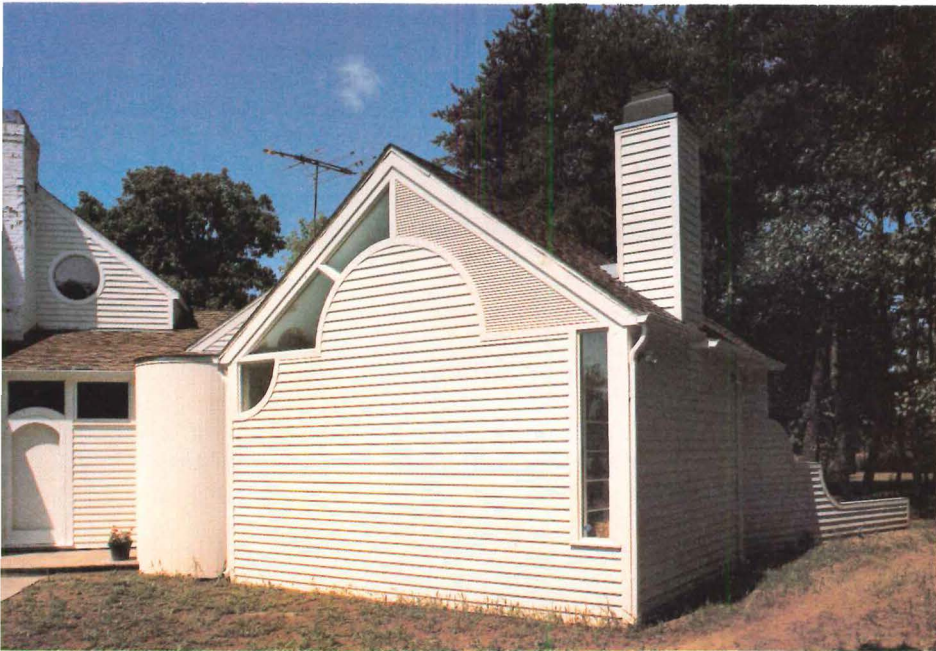
At the front elevation the threat of future development across the road suggested a strip of high windows for privacy. Their configuration recalls Stanley Tigerman's Anti-Cruelty Society addition in Chicago.

The new living room is not connected on the interior to the new bedroom, which was added on the second story atop a flat-roofed 1960s kitchen addition. On opposite ends of the house the two rooms are tied to one another and to the original by pitched roof lines. In the final solution, the gable of the new second story bedroom nestles between the living room addition and the original portion of the house.

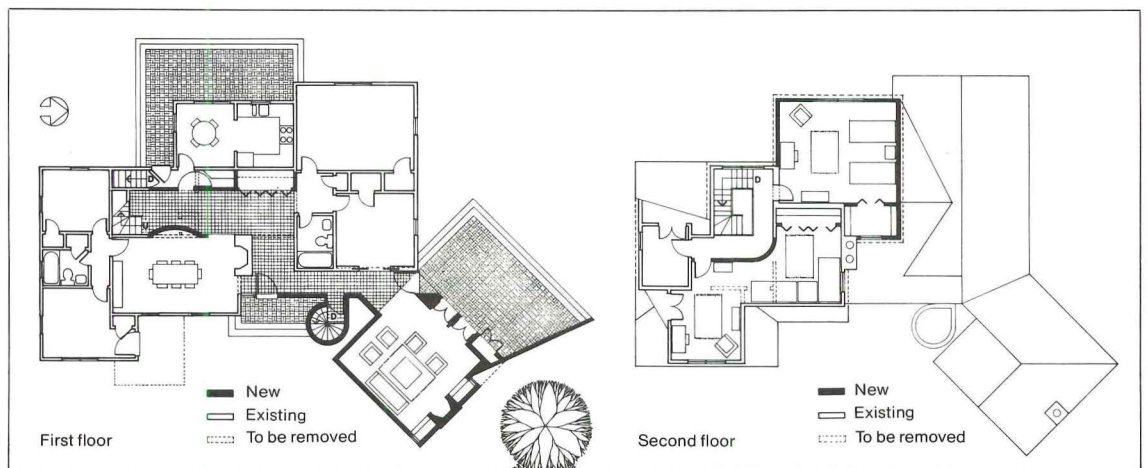
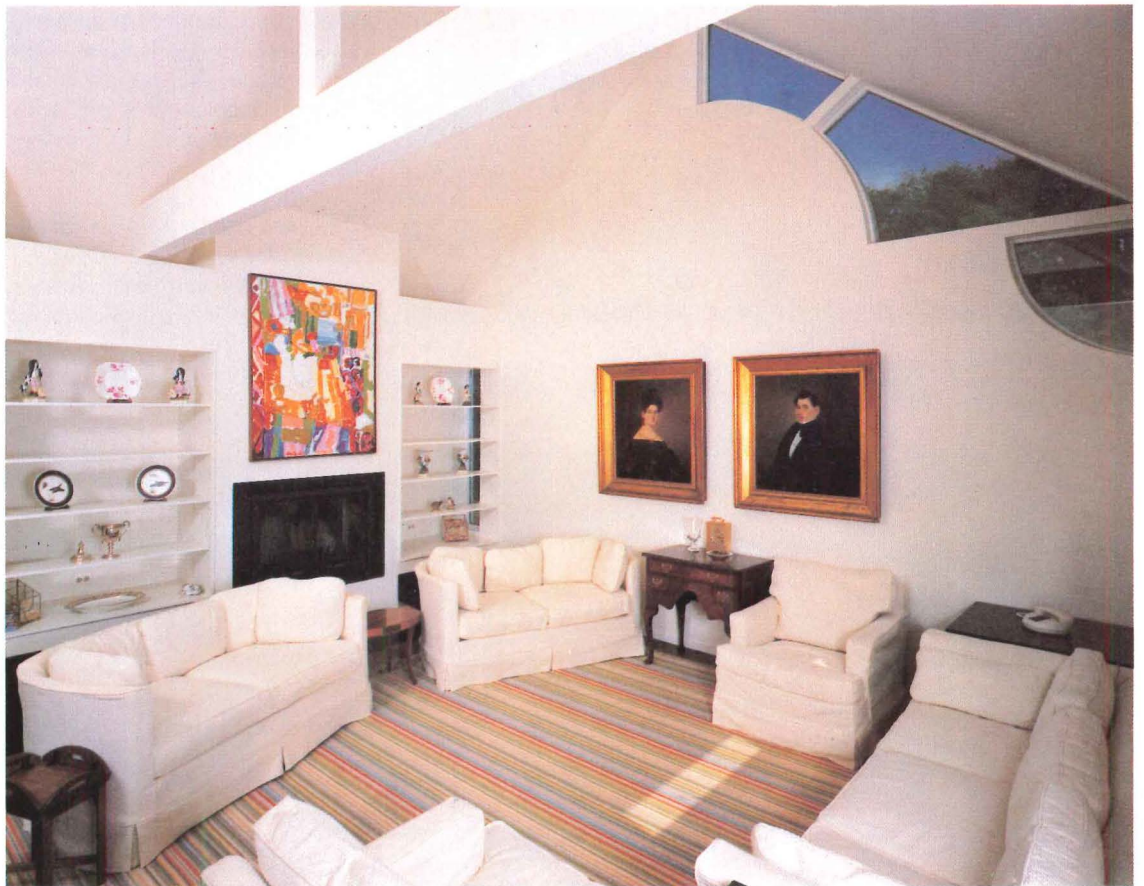
Phillips' use of round forms was meant to conjure up farm imagery. The cylinder of the front elevation, housing a spiral stair to the basement, acts as a pivot for the rotation of the addition and is a direct reference to silos and storage buildings.

The interior palette is stark, with white walls and hardwood flooring throughout. Phillips describes the clients as people who "haven't gotten bored with white. They're content to let the people and artwork become the interior variation." Lighting, both natural and artificial, was given a lot of attention by the architect. In the living room, backlit shelves flank a metal fireplace set in a drywall partition. The high strip of windows, white walls, and track lighting all make the space very bright. This combined with the height of the gabled ceiling and the oversized mannered front window, makes a modestly sized room seem much bigger.

What makes this project so typically Midwestern is, first, its directness. "As you come around the curve of the walk, the house really presents itself," says Phillips. Second, the setting of a Midwest building is cornfield and sky, and Phillips recognizes that the vernacular response to the prairie context is contrast. By echoing the meter of the setting, Phillips has added a harmonious stanza to the property and area. □



across page, the addition (at right in photo) rotates to join original structure; above, the new work full height with oculared second story addition tucked back from cornice line; right, clean lines and white surfaces distinguish living room, largest space of the addition; axonometric, far right, shows living room addition only with second story addition still roofed.



Shakerlike Country House

In Occidental, Calif. Architect: Dutcher & Hanf. By M.J.C.

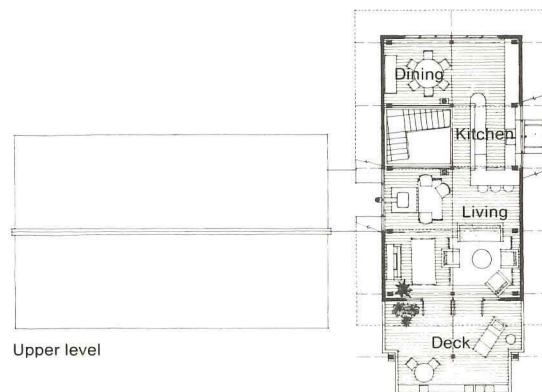
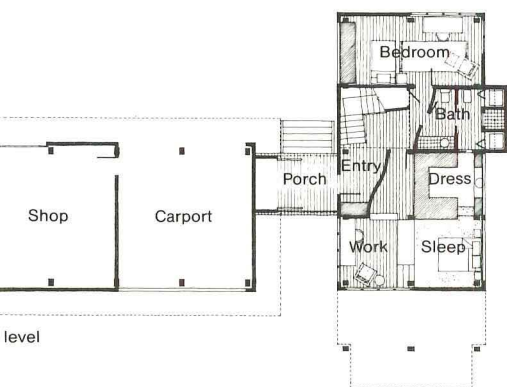
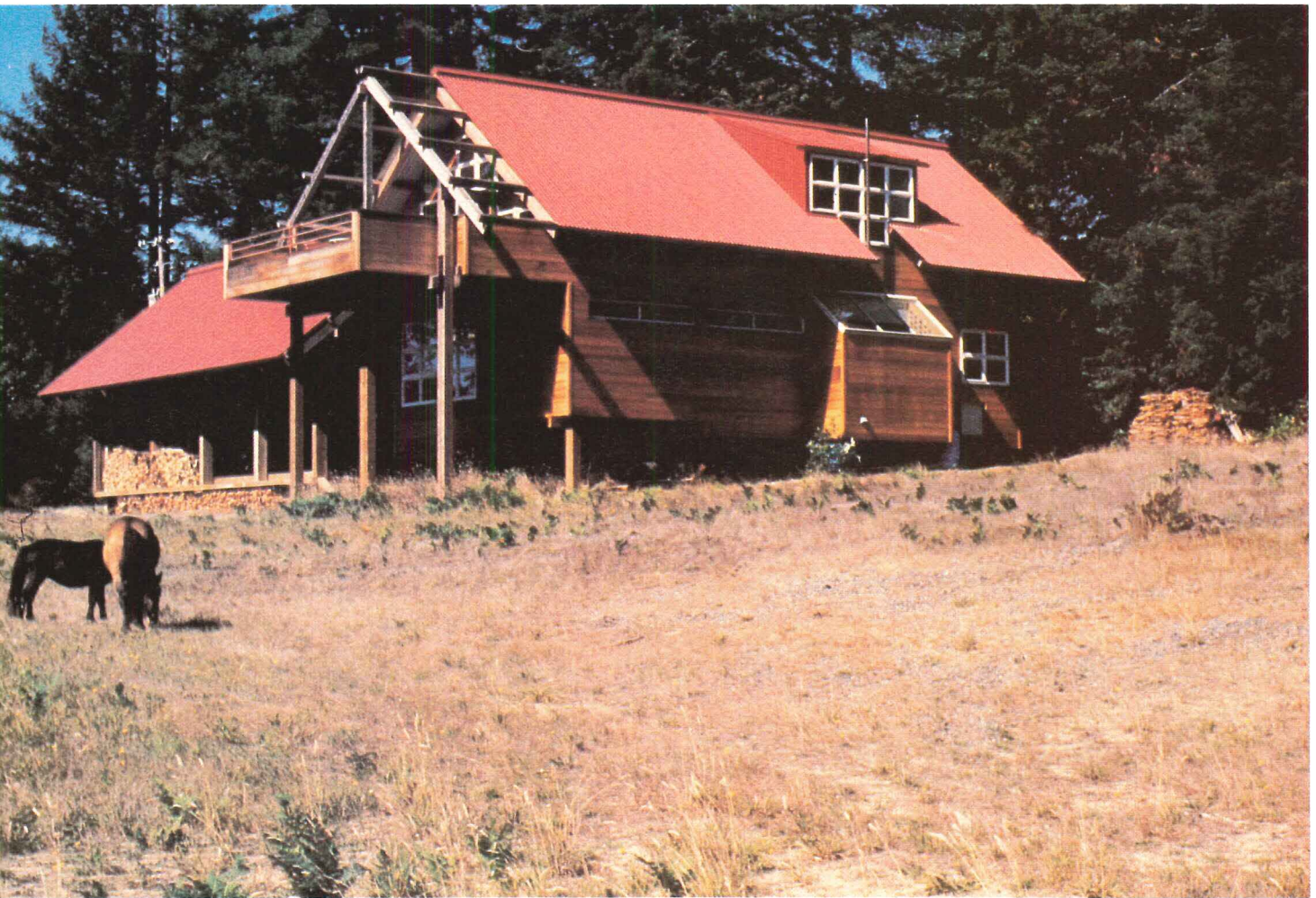
"They always talked about it in terms of it being a barn," says William Dutcher, AIA, of the middle-aged couple for whom he designed this country house. That notion paired perfectly with the architect's intention that the house respond to the farm buildings that dot its rural setting, an hour's drive north of San Francisco. Dutcher, of Dutcher & Hanf Architects, Berkeley, says that corrugated metal roofs and natural wood siding are common to the area and the wood pole framing, besides being rustic, allowed swift construction.

Siting the house on the lot's corner against a cluster of trees freed the rest of the land for future garden and orchard. The front elevation, which faces south, received a generous supply of double-glazed windows, especially on the balconied second level. The exposed projecting roof frame can be covered with canvas for shade in the summer. In the winter, a wood burning stove provides heat for the heavily insulated house. Dutcher says that plans call for the carport/shop wing, now used for wood storage, eventually to be enclosed.

Inside, the skeletal theme is carried out with a clean, Shaker quality, reinforcing the farm esthetic. But the traditional roles of the two levels are reversed, the lower being private with sleep and work space and the upper being public with living and entertaining space. The result is a private realm with appropriately tighter, individualized spaces while the public realm is more open and scaled for entertaining. Dutcher says that the sense of being in an attic on the second level was intended. With the stairway cutout and the ample open end to the balcony, it resembles nothing so much as a hay loft, without which no barn would be complete. □

Left, view into the upper level living area from the balcony; bottom, looking back through the same space toward the balcony with stair cutout in foreground. Across page, top and left, the house as it overlooks the site, with back elevation, right.







Facing Main Street in a Tiny Town

Citizen's State Bank, Milaca, Minn. Architect: The Wold Associates. By Joanna Baymiller

The town of Milaca, Minn., population 2,500, lies in the heart of the Minnesota prairie, 70 miles north of the Twin Cities in a landscape punctuated by little more than telephone poles and barn silos. Like any number of small Midwestern towns, this one was built in the mid-1800s, during the logging era, when the nearby Rum River was a highway for timber traveling to the lumber mills downstream. Today, entering Milaca from the south, one sees a quiet hamlet with a residue of typically 19th century, two-story brick commercial buildings, little more than a two-block blink along the highway.

Thus the new Citizen's State Bank is somewhat of a surprise. "We wanted to be modern, but not in the extreme; we wanted to be new, but not that different," commented bank President Dallas Olson.

The response of the architects—The Wold Associates of St. Paul—was to take a sophisticated architectural vocabulary and chop it into small-town sentence structure. It's an effort that might be compared to playing a sonata with two fingers of one hand, a modest effort, and one with a pleasant melody. But one still has to ask if the architects' search for historical context, ornament, color, scale, urban form, and function has resulted in more than a well-integrated collage of allusions to historical and vernacular styles.

Located at the southeast boundary of the business district and at the intersection of two major streets, the bank's presence on this site is important. Its 7,400 square feet of space are housed in a two-story structure, its cube-like mass disguised behind a lively vocabulary of exterior elements and stage-set roof forms. References to half a dozen nearby buildings are evident: the sand colored city hall, the parapets of nearby industrial buildings, the curving corner mass of its closest neighbor. Each of the bank's elevations presents a different profile. To the south, it's a classically inspired evocation of Palladian formalism. To the east, it mimics nearby two-story brick buildings with their flat

roofs and commercial-scale windows. At the corner it curves in a vaguely moderne gesture, to yet another period of architectural history, but in response to its neighbor. And to the west, low windows and a portico are oriented to drive-in customers.

The ordering element, and the building's most striking aspect is its clearly articulated massing into base, middle, and top, done in ceramic tile wainscoting with stucco walls and sheet metal coping and in a quintessentially postmodern palette of color, but one that blends with the surrounding architecture. It's as if this building went looking for a home and found it in Milaca.

Each of its two street entrances is treated as a signpost. At the corner, the exterior skin drops down over the doorway; the entrance will eventually house an instant cash machine. At the other side, the entrance becomes a pavilion signaled by arched windows over a central door. This serves as the night depository.

Inside, functions are organized around the perimeter of the shell, leaving a two-story space lit by four centrally placed skylights. Bank officers' quarters are along one wall; tellers' counters along another. Second story space behind a wraparound balcony is used for a board room and employee lounge, as well as for storage and mechanical equipment.

Ten percent of the \$360,000 budget went to interior furnishings. Millwork for tellers counters was purchased used and refurbished. New floating customer counters were designed by the architects and built by local cabinetmakers in light oak with emerald green countertops.

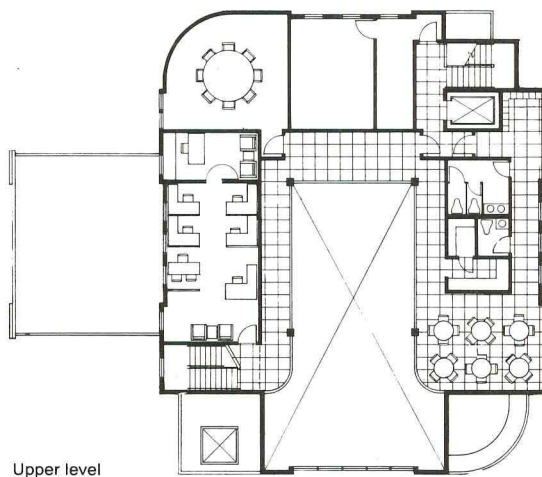
One might call this building a credible attempt to give the client a good architectural citizen, a building that aspires to be the traditional forms of its setting and the noble aspirations that govern the art of architecture. It walks a narrow line in this effort, yet its collage of vernacular forms and fragments is unified by an overall rhythm and composition; it's greater than the sum of its parts. □

South facade, above, evokes Palladian classicism. Across page top, after moderne curve, east elevation recalls nearby storefront. Bottom, interiors are organized around skylit, two-story space.

Ms. Baymiller is deputy director for planning and development for the Minnesota Museum of Art.



Ground level



Upper level





Spirited Hydro-Electric Revival

Powerhouse, Lowell, Mich. Restored by SOM, Chicago. By M.J.C.

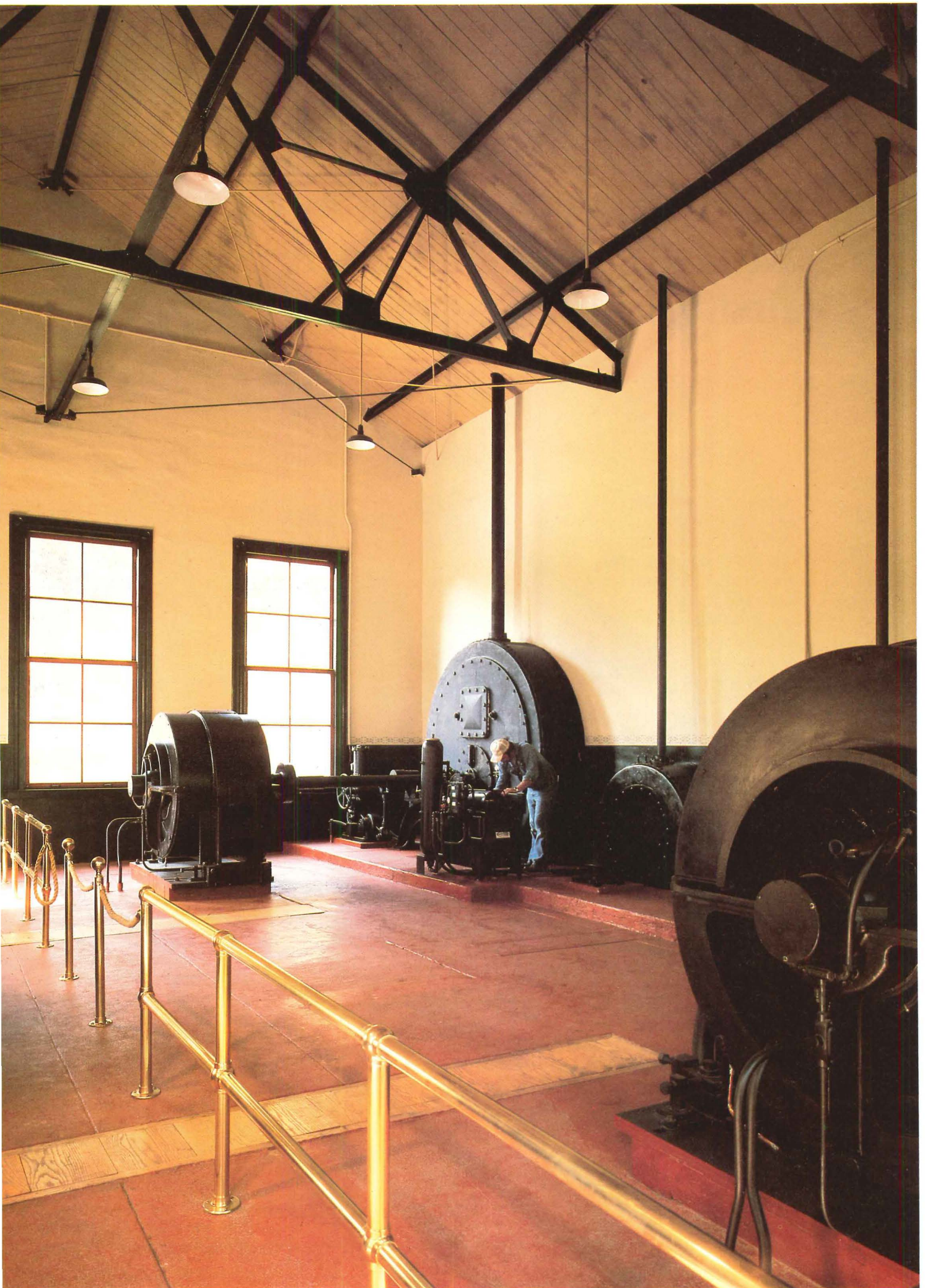


Higher oil prices and a sense of civic pride prompted the town of Lowell, Mich., to revive and restore the derelict Fallsburg hydroelectric plant to once again supply power to the community. Built in 1903, the powerhouse was in continuous use until the 1960s, when it was boarded up and its dam used solely to regulate the water level of a reservoir. During 20 years of neglect the building suffered extensive vandalism; doors, windows, and the original slate roof were destroyed.

Since the construction documents for the building could not be found, Skidmore, Owings & Merrill, Chicago, studied similar powerhouses in central Michigan as restoration models. SOM's Robert Turner, AIA, senior architect for the project, says that while these studies were helpful, the building itself offered much information. Scratching off layers of paint both inside and outside revealed the original color scheme, including a delicate stenciled design just above the interior wainscoting. A new stencil was cut by the architect. The walls, all poured concrete, were then patched, re-stuccoed, and painted.

The doors and windows were redesigned and rebuilt with the use of fragments found in the building. Turner says that when a cheap tarpaper roof was removed in preparation for a new slate roof a hatch was found—the remnant of a cupola. A new cupola was designed according to old documents and now serves to ventilate the machine room. Turner says that documents of the period were also used as a guide in designing a new sign for the building. Since the site was overgrown with vegetation SOM devised a landscaping scheme that would not only provide a setting for the powerhouse, but would also halt further deterioration of the embankment into the river. □

Above, the powerhouse after SOM's restoration and, left, before. Across page, the machine room with new brass railings and a coat of paint, complete with decorative stenciling.



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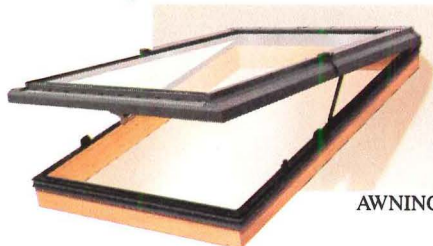
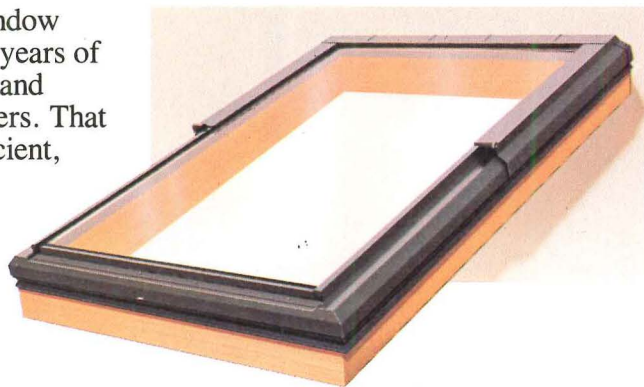
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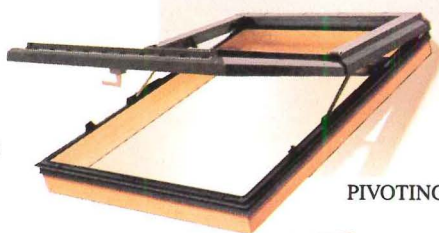
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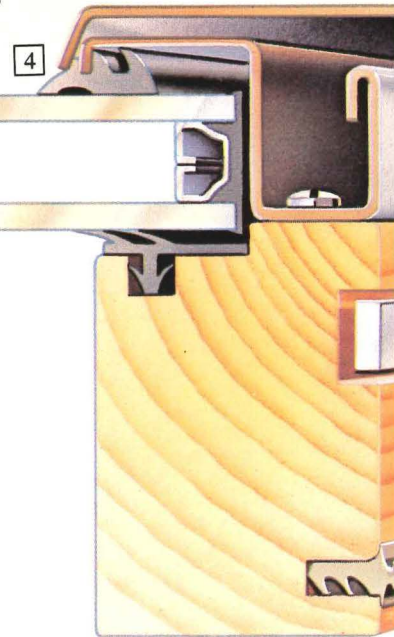
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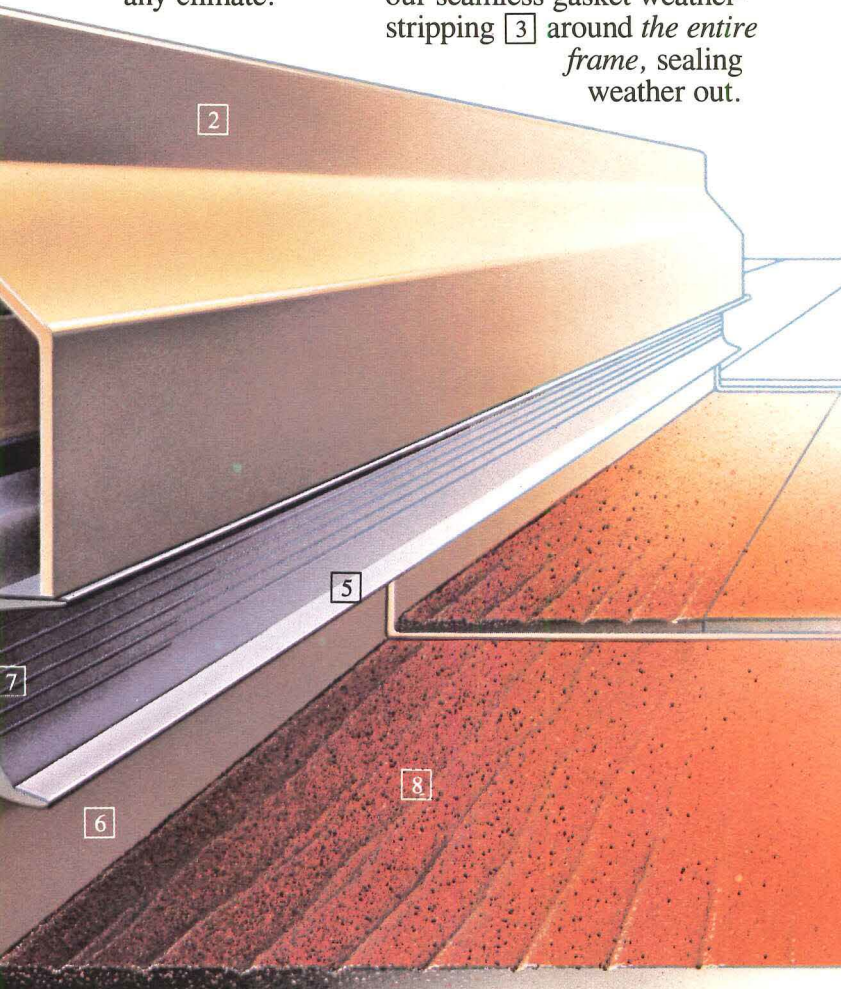
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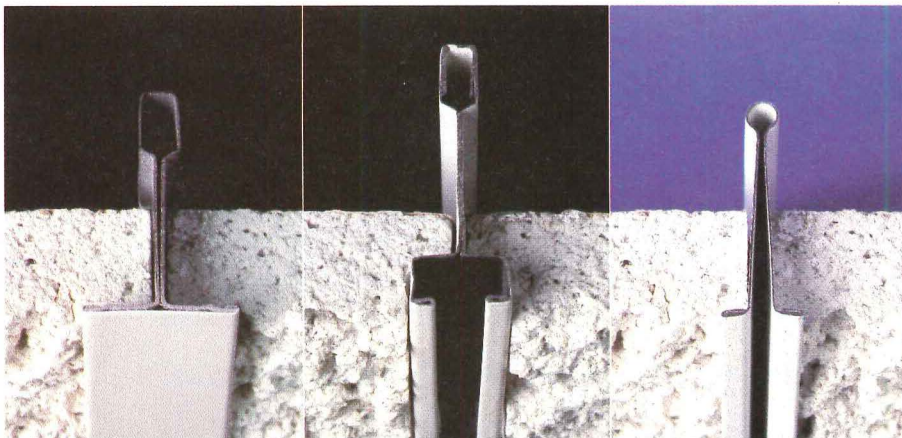
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Vital Encyclopedia' of Energy Design Data

Climatic Design: Energy Efficient Buildings, Principles and Practices. Donald Watson, FAIA, and Kenneth Labs. (McGraw-Hill, \$29.95.)

This professional resource compacts our texts within a single volume of 280 concise pages. It will be a vital office encyclopedia for a long time. After a pointed introduction with a portfolio of nine houses based on climatic design, the section on "Principles" reduces the physics and the formula of the most recent diverse international building and comfort research to a series of concise, hard definitions.

With 124 pages, the section on "Practices" is the heart of the book: 50 design strategies or passive thermal objectives are related to eight winter and summer concepts. Design strategies range from the detailing of window and door construction to control air infiltration through the appropriate application of skylights; to the detailing of double roofs, earth-sheltering, and complex wall assemblies. Part three contains "Climatic Data" for 29 representative American cities, together with bioclimatic analyses techniques, and national maps that plot comfort opportunities. Finally, an extensive bibliography in nine subject subsections concluded with an index that is too modest in its listings.

The focus is the American single-family house on a suburban or rural site—that most demanding building type in design and the most sensitive to the climatic design variables discussed. This book is not about the house of the noble savage, its splendid autonomy. It is about the practical and sensitive design responses to the natural environment that offer increased comfort indoors and out with reduced fuel bills for the life of the struc-

ture. The avoidance of jazzy terms and glib words is indicative of a nonexclusive, nonelitist approach that goes well beyond the insulation/conservation and passive solar heated syndrome.

The no-nonsense introduction puts bioclimatic design on the line for the complete book. A brief portfolio of interesting architectural solutions in several stylistic modes and in a variety of climates underlines the fundamental idea that comfort does not prescribe style. In clear language the primary debt to Victor Olgay's 20-year-old classic, *Design with Climate*, is acknowledged, and the continuing aggregated streams of increasing knowledge are honored. In comparison to this new compendium the Olgay bioclimatic bible seems romantic, even mushy.

A mature Watson and an intense Labs, as two lively authors, are not embarrassed by the wealth of recent information that they have ambitiously reduced to a tight reference with astute professional judgment. In addition to combing the spectrum of bioclimatic literature, the authors have synthesized design parametrics using computers to provide a unique design handbook. Everywhere there are conversion tables and definitions of terms that we thought we knew. But most impressive is a style and format flattering to the exigencies of most office practice. It encourages high performance building by being a high performance book. Architectural vignettes are in easily understood, bold, three-dimensional graphic form, and thermal and comfort strategies are quantified. The climatic rhythms of winter and summer are consistently addressed with great balance—it is a rare text that recognizes the overheated, the arid, and the humid in addition to the cold climates of the U.S.

Simple diagrams are used to key generic energy strategy in book's compilation of conservation design practices.

Building designers in other countries should not be too disappointed. Although there is no reference to design problems beyond the continental U.S., this full spectrum of American climates can characterize much of the rest of the world. The units of measure are in feet, inches, and the Btu. Only occasional metric and SI information is included, where they are the units of the original research. While some may assume that this is a book about "passive" design, that word is not to be found, even in the index. Neither is "snow," "selective surface," "Trombe wall," or "collector."

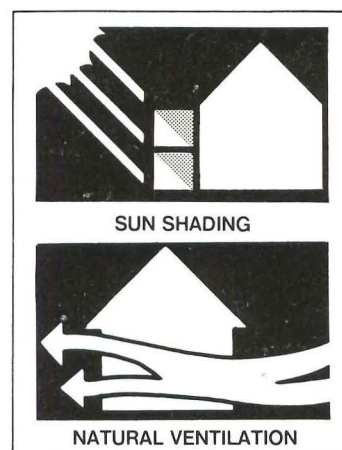
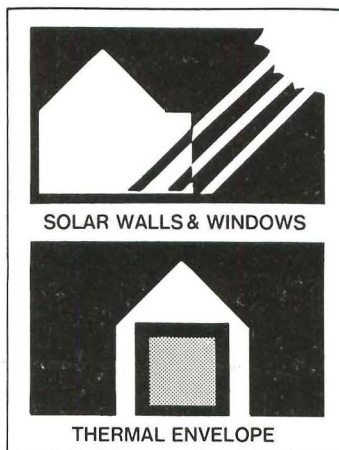
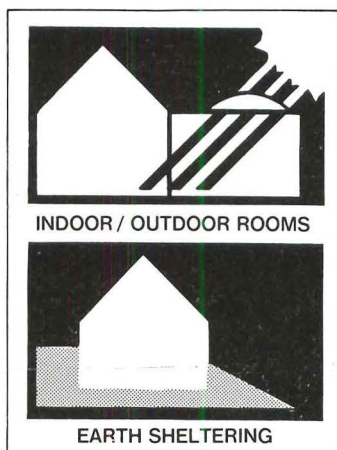
If there is criticism of the language in this wise and intensely informed treasure, it is that the words are tight, the shorthand quite short, making the book difficult to scan and challenging to base one's fantasies on. It does not belong on the coffee table or the bedside table. But as a handbook of accessible professionalism, the potency of this single source lies in its clarity of performance potentials for building beautifully. JEFFREY COOK, AIA

Mr. Cook, a prolific writer on energy conservation and other architectural concerns, is a professor in the department of planning, Arizona State University.

Today's Architectural Mirror: Interiors, Buildings and Solar Designs. Pamela Heyne. (Van Nostrand Reinhold, \$32.50.)

Here is a book about distortion in architecture. Distortion for illusionistic purposes, to enrich reality, space, and our perceptions—it is all done with mirrors. Pamela Heyne leads us through the history of mirrors, the use of mirrors in interiors, mirrors to expand the joys of dematerializing and make-believe, and on to the main body of the work, which deals with mirrors on exterior surfaces and the use of mirrors in solar technology.

Charles Moore has reminded of the uses
continued on page 102



Books from page 101

and pleasures of ambiguity, both in his writings and in his built designs. The use of unreality, fantasy, *glaces à répétition*, or vista mirrors with reflections and reflecting reflections, have become standard parts of the postmodernist bag of tricks. Few can resist the joys of escaping the reductive character of the International Style with its puritanical attitude about materials. The relaxed, not to say spaced-out, architectural taste of the 1970s offered room for hallucination and a serious preoccupation with narcissistic enjoyment. Accompanied by backward glances through history, the search for something new focused on the superficial. Superficial was not held to be a pejorative term, for it was a study of surfaces and what they could do to and for buildings.

Charles Gwathmey is quoted, in 1978: "I want people to know it is a mirror. There is no intent to fool. There is an intent to enrich." Susana Torre's reversed periscopes are avowed "to expand on as well as to provide the meaning of my architecture" and to make it possible to "realize what the circulation space actually is," rather than simply to be used in a decorative fashion. We rejoice with Bruno Taut that "in the distance shines our tomorrow. . . Hurray for purity! Hurray for crystal! . . . the sparkling, the

flashing, the light." Or we may even agree with Frank Lloyd Wright that "the tendency toward the tawdry is present in any use of the mirror."

The final chapter on the solar mirror emphasizes the work of James Lambeth, with only a perfunctory bow to the many other recent designs for using mirrors for sun power. Heyne concludes with the modest statement that "yet, the mirror system just might play an increasingly visible role in the future as one form of solar energy." Her illustrations, 31 in color and many more in black and white, satisfactorily complement the text. The jacket photo by Norman McGrath showing the Citicorp Center, 1979, by Hugh Stubbins & Associates, is in itself a playful distortion that literally tips us to the ambiguities of *Today's Architectural Mirror*.

SARA HOLMES BOUTELLE

Ms. Boutelle is founder/director of the Julia Morgan Association in Santa Cruz, Calif.

Movie Palaces: Renaissance and Reuse. Joseph M. Valerio and Daniel Friedman. Edited by Nancy Morison Ambler. (Educational Facilities Laboratories Division, Academy for Educational Development, 680 Fifth Ave., New York, N.Y. 10019, \$11.)

More than 4,000 movie palaces were

erected in this country between 1915 and 1945. They reflected Hollywood's "golden age" and surely contributed to fulfilling some basic social need. Michael J. Pitt, director of the National Endowment for the Arts' design arts program, under whose financial aegis this book was developed, says in the foreword that the palaces are as important today as when they were built. They are a unique building type, they provide a link with our past, and they can still function as "glorious spaces" for new uses.

Researched and written by Joseph Valerio of the University of Wisconsin-Milwaukee's school of architecture, and Daniel Freidman, a graduate of the school, the book begins with the social and economic history of the movie palace, discussing among other topics architectural style and movie palace architecture. A subsequent section contains histories of nationwide projects in the reuse of the palaces, ranging geographically from the Paramount Theatre in Oakland, Calif., to the Roger L. Stevens Center in Winston-Salem, N.C. A final section on "Relighting the Marquee" gives planning guidelines for economic feasibility studies, project proposals, and other concrete and helpful information on making the old movie palace a vital part of the community. Reuse of the palaces is now a

continued on page 102

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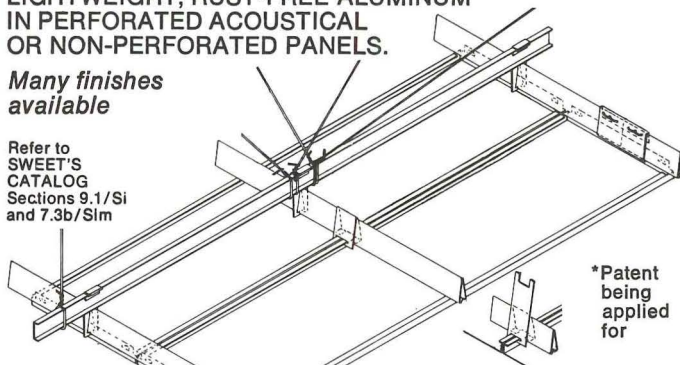
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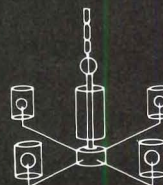
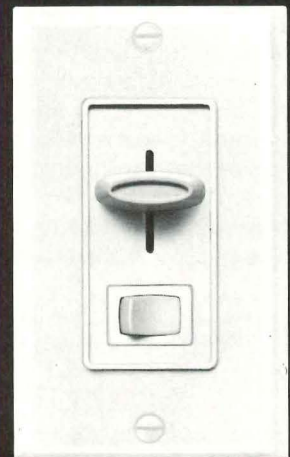
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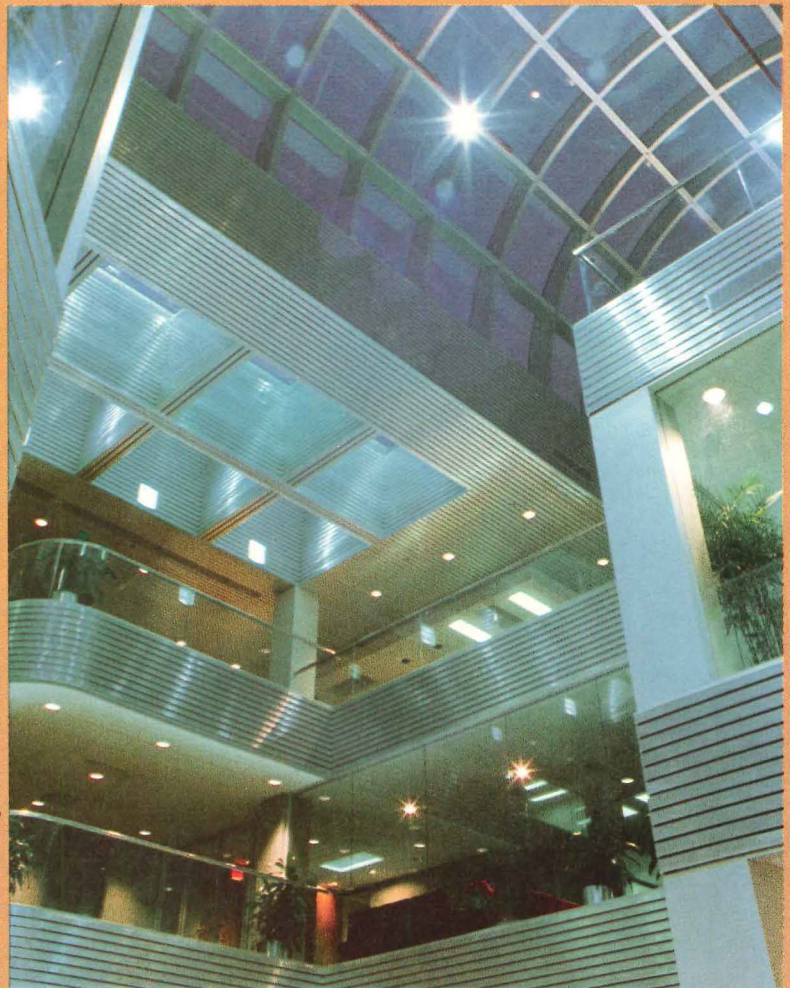
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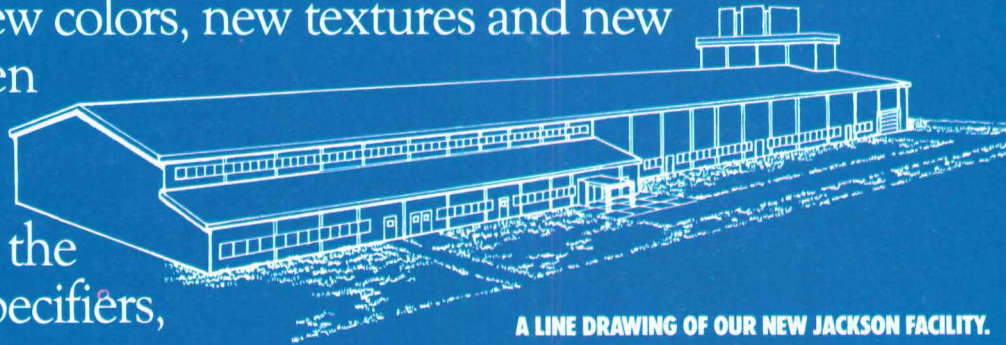


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ooks from page 102

ested idea," and this book will be similarly helpful to those who envision the place as a place for cultural facilities, commercial investment, and instigator of downtown renewal.

Vertical Transportation: Elevators and Escalators. Second edition. George R. Strakosch. (Wiley, \$49.95.)

Almost any person, whether lay or professional, has some horror story to tell about riding an elevator. My own involved climbing up the inclined leg of Saarinen's Louis Arch in a jerky, cramped capsule, fearful all the while that the thing would get stuck.

To avoid such unpleasant encounters, George Strakosch has written this book for those whose business it is to design elevators or escalators. His experience, which includes more than 30 years with the Otis Elevator Co. and more recently as an associate in a leading consulting firm, has enabled him to put together a comprehensive volume on the subject. This recently expanded version of an edition published in 1967 is part descriptive and part technical. It is generally well illustrated (except for a few unreadable figures as 8.10 and 10. 2a.b.c.). Topics covered in the 20 chapters include traffic concerns, different kinds of elevators for different types of buildings, escalators, automated materials handling facilities, environmental and economic factors, plus a final chapter on horizontal people moving systems.

To quote the author, "There is no permanent conclusion to this book." By that means the state-of-the-art of the subject is changing rapidly, requiring one to stay aware to stay abreast. The material contained in the book should be a big help to those who need to be brought up to current levels of elevator and escalator technology. WILLIAM ZUK

Zuk is professor of architecture and director of architectural technology, School of architecture, University of Virginia.

The Genesis of Noto: An Eighteenth-Century Sicilian City. Stephen Tobriner. (University of California Press, \$95.)

Few tourists ever go to Noto, a city in the southeastern part of Sicily, evidently referring the glories of ancient monuments with which Sicily is so singularly blessed. But perhaps it is also because so little has been written about this beautiful baroque city of golden stone—a "new town," created out of the chaos of an earthquake in 1693 that destroyed more than 100 Sicilian cities. Their rebuilding, says the author of this lavishly illustrated, 252-page book, was one of the largest urban undertakings of the 18th century. Urban and architectural historians now

owe a debt to Stephen Tobriner, associate professor of architectural history at the University of California, who has written an authoritative and scholarly but most readable account of the genesis of *Noto Nuova*, its planning and recovery, its growth in the 18th century, its architects, and its building types and styles. The book is not only a contribution because it is a thoroughly documented history of one little-known city, but also because of its importance to urban literature as a whole.

Those who have had the good fortune to see Noto as it exists today must surely agree with Tobriner, who calls it "undoubtedly one of the most beautiful and best preserved 18th-century cities in Europe," and with J. J. Ide who said it was "the perfect baroque city." Noto remains, Tobriner says, "frozen in time," looking remarkably as it did in the 18th century. It "remains as an exquisite tombstone" for 18th century urban culture for many reasons. Among them are its agriculturally based economy (no contamination by industrial smoke); its poverty, which caused monumental buildings to be reused because they were too expensive to replace; and its lack of a need for large department stores because of its own marketing facilities and its lack of tourism itself.

Tobriner seeks answers to some puzzling questions, such as how this city on the outer boundaries of Europe achieved its beauty, how the "highly sophisticated" architecture, arranged on an Italian plan, was adopted by a city then under Spain's rule; and who was responsible for the city plan and the creation of the harmonious baroque buildings. The questions, for Tobriner, are related to the city's form. And his book is about the physical history of Noto "as a manifestation of the economic, political, and social life of Noto." Thus, he probes into the politics of planning for the city's recovery after the devastating earthquake, its search for a new site, the changes in the city's plan, upper and middle class housing, and the role of the clergy and the aristocracy in rebuilding the city.

Architects will be intrigued by Tobriner's account of the designers of the new city. For example, Rosario Gagliardi, one of Noto's three most important architects, never went to Rome or Naples. From the printed page he "absorbed new trends with sophistication." He kept up. "With his prodigious talent for lively facades, exquisite decoration, and constant decorum, he provided a hybrid Sicilian baroque, an amalgam of Renaissance plans and order, baroque massing, Sicilian decoration, and his own exquisite sensibility." Noto is "noteworthy as a visually successful environment" because of Gagliardi's "vivid style and his sensitivity in responding to urban context." □

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6 from the '60s from page 86

associated from the people who have to live with it. So we get . . . shopping malls. Ghastly things, where people have to live their lives. Mothers and kids have to go there, and fathers sometimes too, and experience that deadly world. It just wipes you out. There is universal assent in all my classes, especially after I've presented the Patterns, that it's a rootless, alienating environment that we have to live with. There's a feeling it has to be this way, there's no other way, cities and suburbs have to look that way. We produce houses and offices like commodities. There's no sense of an enduring, cultural feeling there. Just slap it up! We don't have a real culture. Everybody got mobile; everybody knows too much and not enough; money has become king; everybody's been displaced; we don't have a sense of place. Why not housing as a commodity?

Modern architecture is doing this all over the world. Even the third world is gobbling it up. They think, "That's it!" and move away from the real patterns they had that worked. The Greeks are destroying their heaven with steel and reinforced concrete. Everything straight, hard, deadly, no intimacy. They used to handle the stones, plaster, whitewash.

Our environment is deadly, life-draining, uncaring, all for short-term gains. I'm exaggerating, and it's easy to speak in generalities. There's some good work too,

places that stop you in your tracks.

Shipsky: So what do you suggest?

Velonis: There's no reason for developments to look the way they do. There are lots of architects with talent. People consider architects the leaders in creating our environment. You don't have to stay with conventional concepts. That's what the Patterns so elegantly discard. There are a lot of clues in the Patterns for making our environment an inspiring, health-giving place that creates life, that feeds life back into us. I see architecture as one of the most powerful forces we've got. The architect is a therapist, a teacher who can show people how life is affected by environment.

I think the Patterns present a real challenge to the idealists of the '60s, in showing us how we might get along better on the world. Alexander bases the Patterns on what works ecologically in terms of the whole culture.

Shipsky: Have you found problems using the Patterns?

Velonis: Using them takes more time. We have a joke around here about the timeless way. One house we built, with alcoves and a crinkled edge, had 18 corners on the foundation. The guys driving the concrete truck laughed at us. But owner/builders are willing to take extra time. There has to be a lot more planning than Alexander lets on. It's great to keep away from paper as long as possible, but to

avoid mistakes, plan sequences, etc., you have to plan in advance.

Shipsky: How do you see the future for the '60s generation, and for yourself and Heartwood?

Velonis: I'm always bumping into the mainstream; I can't fit in; it makes it too hard to be creative, to be true to the values I found in the '60s. In the '70s we educated ourselves: spiritually, other cultures, religions, economic alternative a real broadening. It required most of the '70s to overcome the naiveté of the '60s. In the '80s we need to manifest, put in roots, make a difference. I'm thinking of videotapes on construction techniques for the third world. And I'm hoping to use the Patterns in a hospital for the disturbed.

Postscript: This isn't the end of the story because it isn't the whole story. I think there are men and women practicing architecture in new ways, realizing '60s values. I think many architects, like myself, want to work with a group making a city or town a good place to be; who want to help students experience and learn good craftsmanship; who are designing and building for the future; who are using Pattern Language; who are building in harmony with nature; who believe the function of architecture is illumination. I'd like to hear from you. Please contact the author, in care of the editor. □

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No. 7

NEWS ABOUT INSULATING GLASS
Architectural Distinction
Ontario Place, Chicago

In a city like Chicago, which has many distinctive buildings, it is not easy to design a structure that stands apart from the others. But that's just what Lenningsen Partnership did.

Ontario Place is a 10-story apartment/office building complex located in the North Side of Chicago. It fills a need for housing and office space in a dynamic urban area with many new and old buildings.

The first six floors are approximately 133,000 sq ft of office space. The next 40 floors contain 470 efficiency, one and two-bedroom apartments, each with its own separate laundry.

Adjacent to the office is a 47,000 sq ft gymnasium in which can accommodate 1,000 people. The gymnasium is also used for other activities.

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Over 6,500 insulating glass units were used in the building. The units were manufactured by Morton Thiokol - Glass Division. The units were installed by Morton Thiokol - Glass Division. The units were installed by Morton Thiokol - Glass Division.

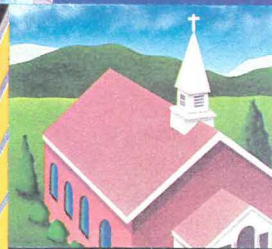
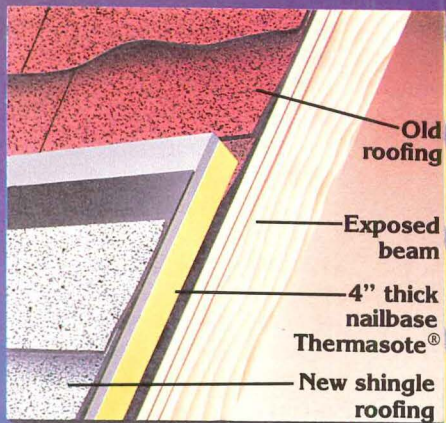
NOTICE TO ARCHITECTURAL DESIGN FIRMS NEW POLICE FACILITY FOR THE CITY OF ELIZABETH, N.J.

Architectural Firms are hereby invited to submit a proposal to provide architectural design services for a New Police Headquarters Facility in the City of Elizabeth, New Jersey.

Each firm or person interested in performing the services, shall submit the forms and descriptive material specified in the Request for Proposals and any other material that may be useful in the selection of a firm.

The Request for Proposal may be obtained from the Division of Community Projects, 50 Winfield Scott Plaza, Room 221, Elizabeth, New Jersey between 9:00 a.m. and 4:00 p.m.

The proposal must be mailed or delivered to the Division of Community Projects, 50 Winfield Scott Plaza, Room 221, Elizabeth, New Jersey 07201 before 4:00 p.m. February 3rd, 1984. Selected proposers will be invited to make oral presentations to the Selection Committee in mid-March, 1984. Selection of the architect firm is anticipated to be finalized by May 18th, 1984. The design of the facility is scheduled to be complete by January 15, 1985.



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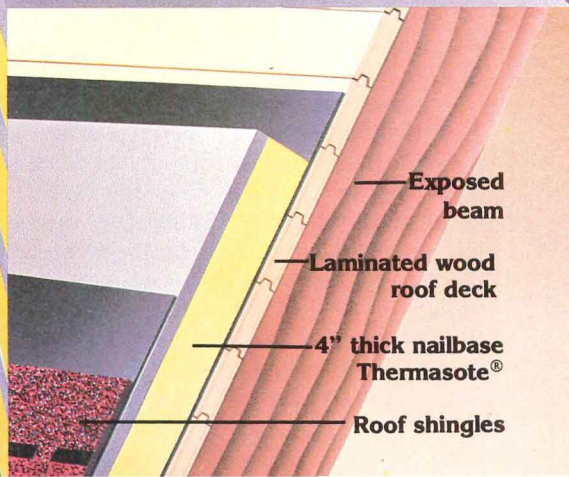


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Letters from page 6

Design and Quality of Life: In recent months architects have made public their renewed commitment to the quality of American life. At the heart of this commitment is a realization that people—human beings—our clients—must be (1) served by the built environment and (2) educated to appreciate the built environment's esthetic and technological contributions to our culture. For example, the results of AIA's 1983 survey of registered architects indicate that respondents view the development of humane buildings as well as increased public understanding of architecture as vital concerns of today's professionals. Those sentiments were reiterated at AIA's convention in New Orleans at a gold medal forum in which six renowned architectural practitioners, critics, and scholars stressed the need for people-oriented approaches to design and for approaches to educating the public to the problems and concerns faced by the designers of the built environment.

While these commitments seem highly appropriate to a profession that is beleaguered on the one hand by its own sense of purpose in society and on the other hand by a society that is ill prepared to understand the meaning and value of the built environment, pure commitment is inadequate in effecting change. What is needed are methodologies for carrying out our humanistic concerns. If we are to improve the responsiveness of design in addressing human needs, we need to acquire an understanding of behavioral patterns and to develop the means for accommodating those patterns. If we are to improve public awareness of quality design, we must investigate the prevailing cognitive processes in relation to the environment and then intercede into those processes.

In short, the commitments that are being articulated by architectural professionals call for behavioral and perceptual methodologies in design. Yet little systematic research seems to be taking place that would lead to the development of these methodologies. According to AIA's Architectural Research Council, neither social scientists nor the traditional architectural education has afforded the practitioner with the knowledge and skills that are required to address those very issues that seem most vital to the profession.

What seems odd is the council's own lack of concern for helping the practitioner to pursue humanistic issues in design. The Architectural Research Council was formulated by AIA in order to address the most pressing problems encountered in architectural practice and design. It is one of the principal media through which AIA attempts to improve the state of the art in design. Certainly great numbers of architects who espouse

a commitment to humanism in design are clearly without the wherewithall to pursue that commitment, yet a review of the "1983 Architectural Research Priorities" recently published by the council indicates that the development of people-oriented methodologies in design is not among the council's major concerns.

The council has identified 25 areas of concern: 24 of those categories pertain to technological problems encountered in design—building codes, energy conservation and design, cost effectiveness, preservation and reuse of buildings, and life-saving elements in building design. Only one category pertains to human behavior, and that one is limited to behavior in specialized facilities.

It seems extraordinary that the council has elected to devote most of its attention to the technological function of buildings while paying only cursory attention to the effect of those technological functions on the quality of human life. It seems even more extraordinary that architects continue to make commitments to the quality of life while taking little, if any, concrete action to systematically find out what constitutes quality of life for divergent segments of American society. Year after year, we as a profession continue to rely on our intuition to solve behavioral and perceptual problems at a time when rapid changes in life styles are jarring our traditional understandings about human behavior and about the meaning and values inherent in built form.

Our continued reliance on intuition to human values and our increasing obsession with the technological is nowhere more concisely illustrated than by the Architectural Research Council's 25 research priorities.

I am disappointed by the council's lack of concern for behavioral and perceptual issues in design and by the general lack of action-based initiative on the part of an architectural profession that persists in declaring its commitment to humanism in design while ignoring opportunities for concretely pursuing that commitment. I am hoping that other AIA members feel as I do and will join me in insisting that the AIA membership follow up its humanistic espousals with meaningful action. *Sharon E. Sutton, AIA*

Cincinnati

Earle W. Kennett, research administrator for the AIA Foundation, replies: Sharon Sutton's concern about the lack of sufficient research on behavioral and perceptual issues in design is valid. Architectural design will always be based to a degree on the designer's intuition, but we would be negligent as a profession if we did not support the use of reliable empirical research to expand our body of knowledge on behavioral and perceptual issues to

provide our intuitive decisions with a more solid foundation.

The Architectural Research Council's 1983 research priorities include research to quantify the benefits of "good design" and research to quantify exactly what makes the quality of life good in some communities and poor in others. While recognizing that these research questions can be extremely difficult because of the many subjective factors involved, the council believed that these questions are too important not to be asked. Moreover, the behavioral and social sciences have matured sufficiently to be capable of helping us take a step or two in the direction of finding answers.

A third council priority for 1983 has been, as noted by Sharon Sutton, research on the psychological and sociological design requirements of health care patients, the elderly, the developmentally disabled and other special groups whose requirements are often beyond the general experience and intuition of practicing design professionals.

Are these three—out of 25 research priorities—*enough?* Previous lists of architectural research needs have tended to be long "wish lists" that included every valid need regardless of the limited financial and human resources available for architectural research. A primary value of the council's list is that it was developed through a series of difficult choices among the hundreds of valid research needs to identify those that practicing architects consider priorities in a time of limited resources. The council, which is composed of representatives of AIA's 14 major committees on practice, design, and professional development, based its choices on a careful ranking of these committees' grassroots concerns. Thus, the council gave attention to the full range of humanistic, esthetic, technological, cost, and related issues that affect architecture.

The need to set priorities led to the council's final list of the profession's 25 most urgent research topics. AIA members are urged to communicate their research needs to these committees for consideration in the process of developing a list of research priorities for 1984.

The Man Who Drove One: In connection with "Bucky" Fuller's Dymaxion Car may we make a minor historical correction (see August, page 21). It was not an attraction in the 1933 Chicago World's Fair, as stated, but it was displayed in the Crystal House in the 1934 Chicago World's Fair as a part of this house designed by George Fred Keck—William Keck, Architects. I had the pleasure of driving it around (at a slow pace!) at that time.

William Keck, FAIA
Chicago

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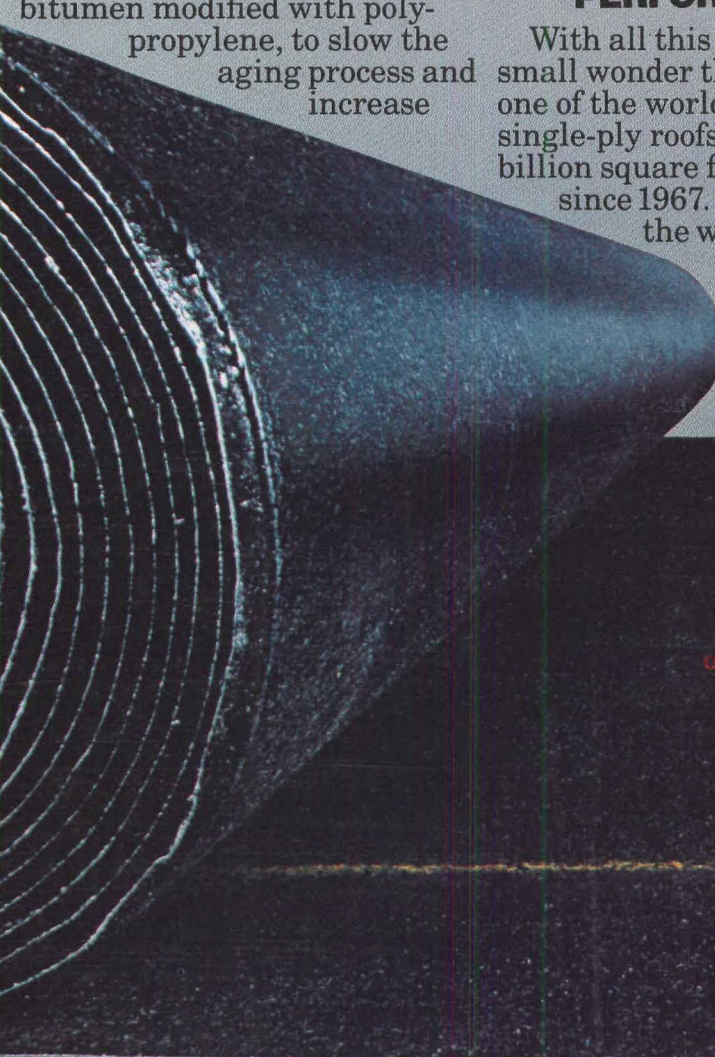
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DEATHS

Henry L. Willet: With more than 10,000 windows around the world and over 100 employees, the Willet Stained Glass Studios in suburban Philadelphia is the largest such works in the world. Willet windows are installed in New York City's St. John the Divine, the Washington National Cathedral, and the Chapel Center at the U.N. Henry Lee Willet, Hon. AIA, who died Sept. 29 at the age of 83, learned the art from his father. Educated at Princeton and the Wharton School at the University of Pennsylvania, he spent years researching in Europe before taking over the firm as president in 1930. He became chairman of its board 35 years later when his son succeeded him as president. He was credited with a major role in stained glass innovations, including the development of techniques using cements and epoxy in place of lead and use of new types of glass.

James M. Hunter, FAIA, Boulder, Colo.
David Kammeraad, Columbia, Mo.
Daniel D. Merrill, Tryon, N.C.
Harold M. Neal, Cornwells Heights, Pa.
George H. Riggs Jr., Silver Spring, Md.
Arthur H. Schein, Brookline, Mass.
Robert Stanton, FAIA, Carmel, Calif.
George V. Whisenand, Honolulu

BRIEFS

Parking Lot Design Competition.

The city of Columbus, Ind., and the Irwin Sweeney Miller Foundation announce a competition for the design of a 200-car parking lot in downtown Columbus. The competition is open to all registered architects and landscape architects in the U.S. All entries are due April 1, 1984. For registration contact: Theodore Liebman, AIA, Liebman Ellis Melting, Architects and Planners, 330 West 42nd St., New York, N.Y. 10036.

Seattle Museum Competition Awards.

The Seattle Chapter/AIA and *Blueprint for Architecture* have selected four winning concepts in a design competition for a downtown Seattle art museum. Awards were presented to Stanford Wyatt; Keith Beckly, Jeffery Bishop, Dennis Evans, Nancy Mee, and Jim Olson; Dale Jorgenson and Luke Gjurasic; and Jochman/Kundig Partnership.

Energy Systems Catalog.

Ecotech's 72-page energy systems catalog/sourcebook with articles, energy savings suggestions, and listings of energy products is available from Bob Gilbert, Ecotech, P.O. Box 9649, Washington, D.C. 20016.

SGF Traveling Fellowship Awarded.

Georgia Tech student Henry Bradley Methvin of McDonough, Ga., was selected the 1982-83 SGF prize winner for the project design of the World Bibliographic Center in Chicago. He was awarded a bronze-cast sculpture by Arnaldo Pomodoro and a \$6,000 travel fellowship.

Steel Construction Publication.

The American Institute of Steel Construction is offering a 84-page booklet, "Torsional Analysis of Steel Members," to assist with computation required for complete analysis of effects of torsional loading on structural members. The publication is available for \$16 from the American Institute of Steel Construction, Wrigley Building, 400 N. Michigan Ave., Chicago, Ill. 60611.


Minnesota Society Gold Medal.

Robert G. Cerney, FAIA, has been awarded the Minnesota Society/AIA gold medal for "outstanding service to the public and the profession." Cerney, now retired, practiced in Minneapolis and taught architecture at the University of Minnesota for 40 years. Among Cerney's designs are the Metropolitan Stadium, the Minneapolis-St. Paul Airport, and the school of architecture at the university.

Briefs continued on page 1

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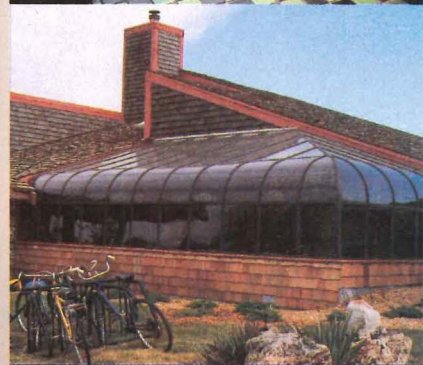
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Architectural Software Exchange.
The Architectural Research Centers Consortium, with a grant from the National Endowment for the Arts design program, is organizing a designers software exchange to act as a clearinghouse for public domain software and software donations from members. For more information, contact Harvey Bryan, Laboratory of Architecture and Planning, MIT, 77 Massachusetts Ave., Cambridge, Mass. 02139.

Urban Design Competitions.
Ernest R. Alexander is seeking information for a research project, sponsored by the National Endowment for the Arts, on recent U.S. design-planning local and national competitions. Material should be sent to Professor Ernest R. Alexander, School of Architecture and Urban Planning, University of Wisconsin, P.O. Box 4800, Milwaukee, Wis. 53201.

Exhibition of Women's Work.
Women architects are invited to submit proposals of their work for an exhibition, "84/Programmatics and Poetics," at the R. Gallery, New York City. Proposals should include nonreturnable prints, slides and a description of the preliminary project idea. Entries must be postmarked by Jan. 23. Send proposals to

Berenice Reynaud, A.I.R., 63 Crosby St., New York, N.Y. 10013.

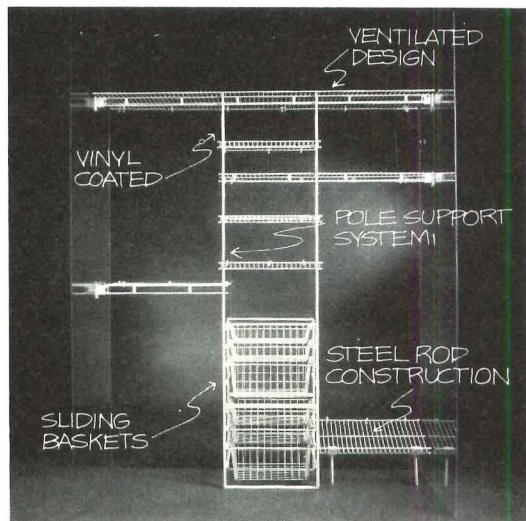
Call for Papers on Small-Town Design.
The fifth annual Chautauqua in Mississippi seeks papers for its conference, "Emerging Methods of Small Town Design," to be held Oct. 10-12. One-page abstracts, due April 15, may be sent to Michael W. Fazio, School of Architecture, P.O. Drawer AQ, Mississippi State University, Mississippi State, Miss. 39762.

BUILDING SPECS

Ventura Coastal Administration Building, Ventura, Calif. (page 64). *Architect: Rasmussen & Ellinwood, Ventura.* Ceiling system: Owens-Corning. Entrance doors: Kawneer. Interior doors: Arcadia, Calwood. Elevators: Republic. Environmental control systems: Lennox. Carpet tile: Collins & Aikman. Brick flooring: Higgins Brick. Concrete paving: Conrock. Handrails: Hubb Steel. Door closers: Norton. Hinges: McKinney. Locksets: Schlage. Exterior lighting: Crouse-Hinds. Interior lighting: TRA, Indalux. Paint: Dunn-Edwards. Movable partitions: Herman Miller. Flush valves: Sloan. Plumbing fittings: American Standard. Sprinklers: R&E Fire Protection. Toilet stalls: Mills Metal Compartment. Water fountains:

Western Drinking Fountains. Water closets: American Standard. Bathroom accessories: Bobrick. Roofing: Johns-Manville. Waterproofing: Flintkote. Computer room flooring: Westinghouse. Signage: Herman Miller. Carpet: Collins & Aikman. Atrium: Aliminex. Windows: Kawneer.

Essex Dorsey Senior Center, Essex, Md. (page 74). *Architect: The Paul Partnership, New York City.* Door closers: Reading. Hinges: McKinney. Locksets: Corbin. Exterior lighting: Red•Dot, Halo. Interior lighting: Daybrite, Lightolier, Timonium. Paint: Glidden. Plumbing: Sloan. Sprinklers: Central Sprinkler. Counter sinks: Bootz, Kohler. Water closets: Kohler. Bathroom accessories: G. M. Ketcham. Water fountains: Halsey Taylor. Roofing: Certaineed. Solar water preheater: Energy Engineering. Nurse call system: Edwards. Fire alarm: Simplex. Insulating window quilts: Appropriate Technology. Cabinetwork: Geyer Lumber. Gypsum wallboard: U.S. Gypsum. Windows: Pella. Entrance doors: Amarlite. Sliding glass doors: Acorn. Interior doors: Algoma Hardwoods. Heating system: H.B. Smith. Control system: Barber Coleman. Wood parquet flooring: Hartco. Tile flooring: Summitville. Carpet: Berman. Vinyl: Armstrong. Rock garden: Texas Quarry, Genstar, Blue Mount Quarry, George Schofield. □



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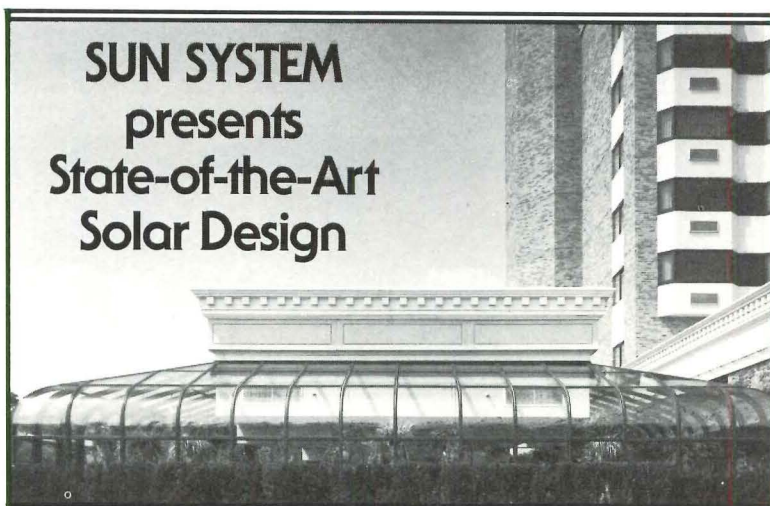
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ARCHITECTURE/JANUARY 1984 113

Furnishings

A resources for design and objects of design. By Nora Richter Greer



1



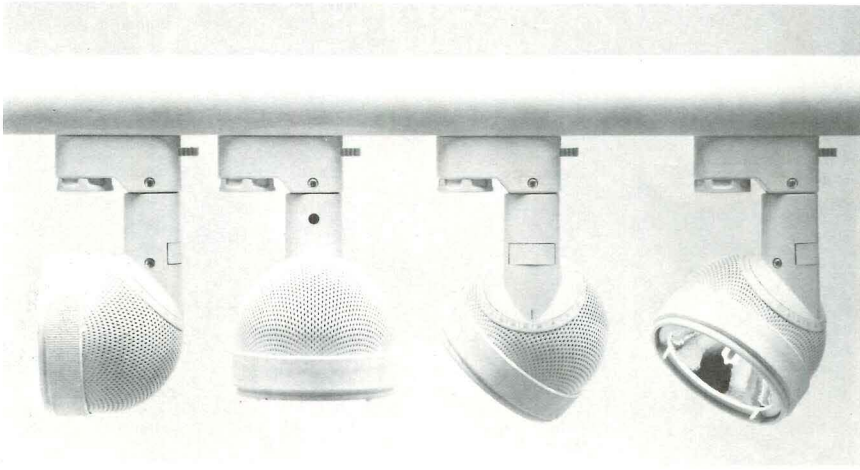
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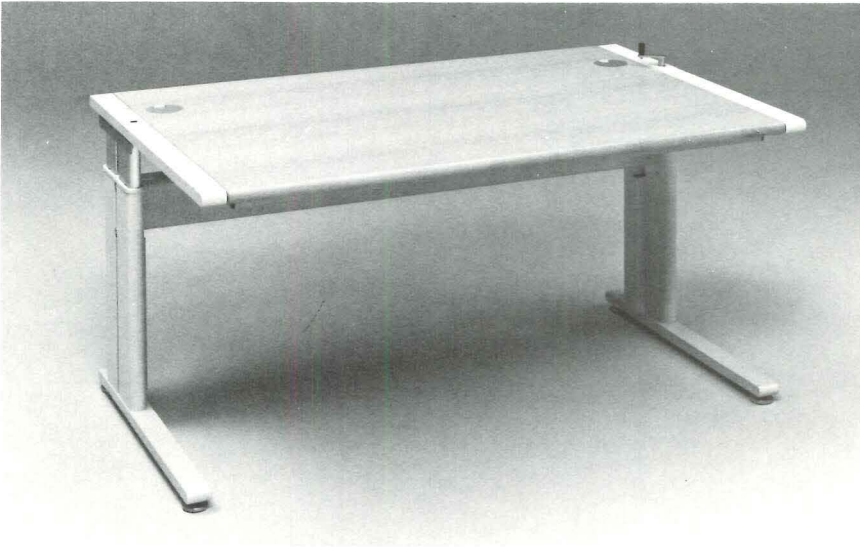
3

Architect Emilio Ambasz once said, "We create objects not only because we hope to satisfy the pragmatic needs of man, but mainly because we need to satisfy the demands of our passion and imagination." The task, he said, was to "give poetic form to the pragmatic." And that is exactly what he and co-designer Giancarlo Piretti have achieved in both the Lumb-r Chair (2) and the Oseris lighting system (4), which were developed in the industrial design studio in Bologna, Italy. The chair is reminiscent of simple wooden school chairs, although in this case a piece of the back has been scooped out and the mass of the legs has been exaggerated. A desire for simplicity is also evident in the lighting system, whose design emphasizes the light function and versatility.

Ambasz's design philosophy is also reflected in the rest of the furnishings we show this month. The Genni chaise lounge (1) is an uncomplicated, streamline image. Designed in 1935 but only recently manufactured by the Italian firm Zanotta, the lounge's steel springs support the polyurethane upholstered seat. Frames are chromium plated or lacquered steel. Krueger's CO continuous work stations (3) have an uncluttered, uncomplicated appearance due to a column-and-beam infrastructure that provides a solid load-bearing support and also channels telephone, power, and data lines. The work surfaces come in a variety of shapes (rectangular, square, triangular, circular, semicircular) and can be connected in 45-, 60-, or 90-degree angles. Finishes are black or sand laminate or oak veneer; edges are solid hardwood. Krueger also offers the DataBord series, one component of which is a worktable with adjustable height (5). Another in the series are a terminal table, typist table with casters, printer stand, and attachable rectangular and triangular work surfaces. The Worden Co.'s H.E.L. Multi-Chair (6) is also a lesson in simplicity. The design features a wooden frame (available in four natural wood finishes and eight lacquers) with a graceful seat (offered in hundreds of textiles and eight leathers). □



4

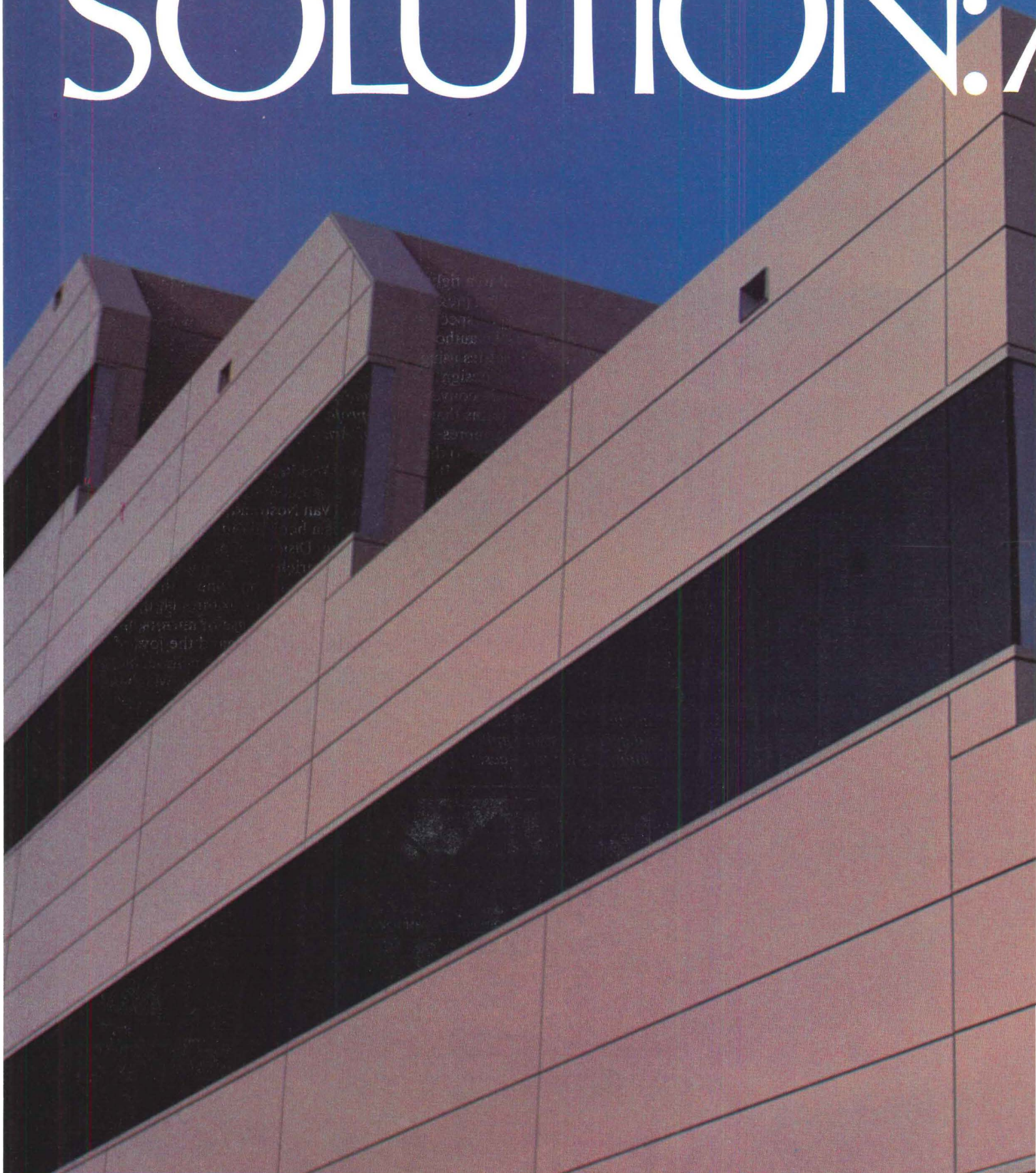


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6

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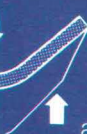
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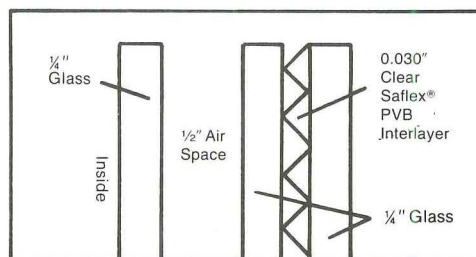


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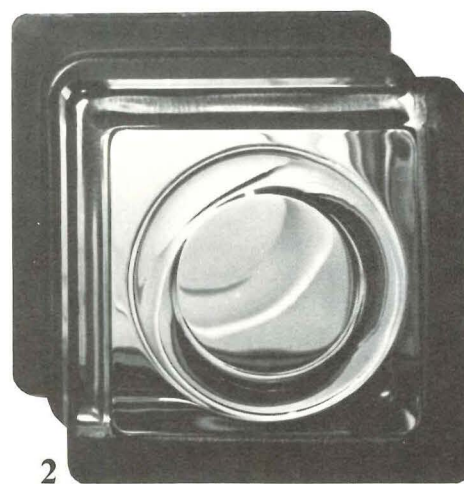
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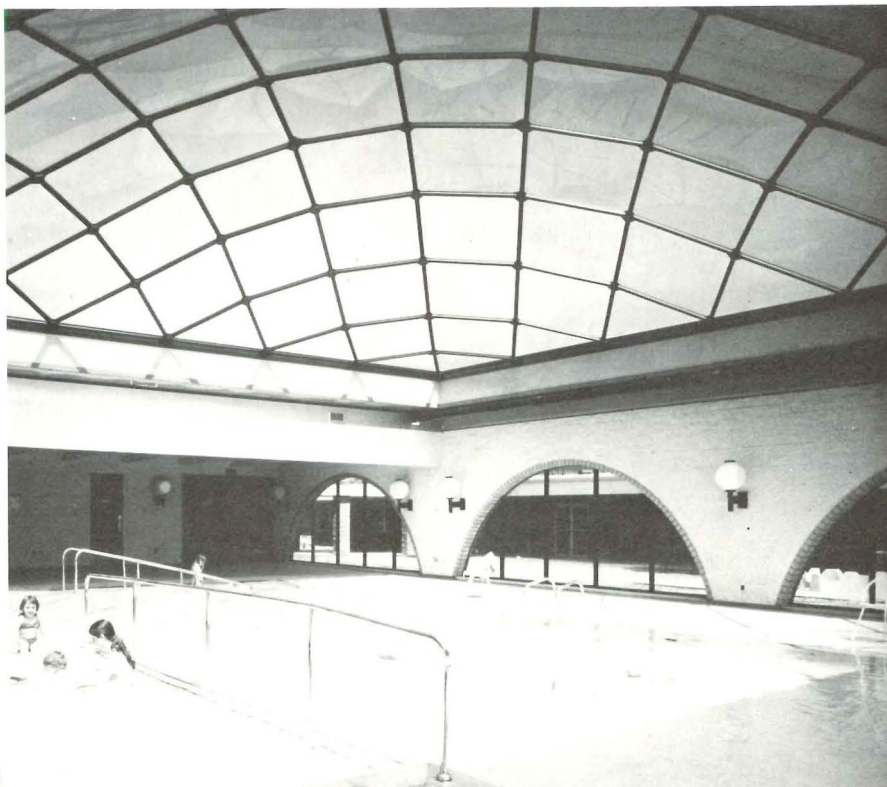
By Lynn Nesmith



Wilsonart's Primeline collection of tambours for residential and commercial installations consists of high-pressure decorative laminates in five vertical and grid grooved patterns and a choice of solid colors, brushed and polished metallic finishes, and natural woods. The backplate in the row of public telephones (1) is the Nepal teak woodgrain laminate. (Circle 161 on information card.)

The Cirplet glass block (2) by Forms + Surfaces has a ring pressed into the inner face of the block to create a partially transparent pattern with a three-dimensional appearance. The blocks measure five inches square and are available with a standard white rim or eight colored rims. (Circle 162.)

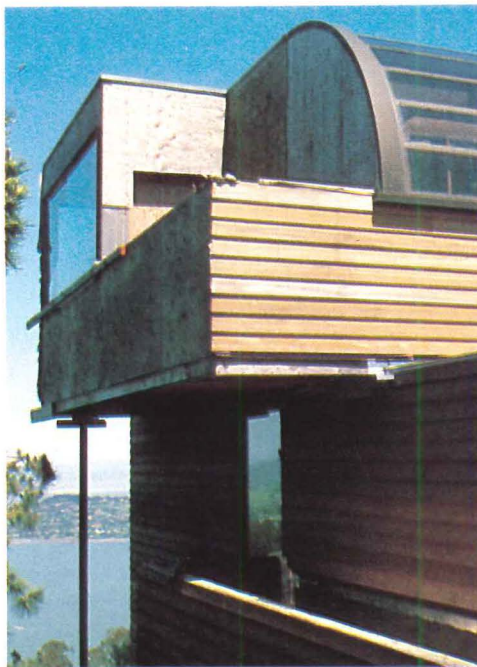
The Regional Center of the Crippled Children's Society (3) in Long Beach, Calif., designed by S. M. Stoshitch, AIA, has a Temcor Crystogon geodesic dome over its therapeutic swimming pool to provide solar control and natural lighting. The space truss roofing system, constructed of aluminum extrusions, stainless steel and aluminum fasteners, and extruded silicone rubber gaskets and sealant, is fully triangulated to prevent panel distortion and includes an integral condensate drainage control system. (Circle 163.)



continued on page 120

Residential Skylights.

Aluminum framed skylights have white, black, or bronze baked enamel finishes with single, double, or triple glass or acrylic glazing. Available in square, triangular, and circular shapes in flat and pyramidal configurations, plus custom designs, the units can be fitted with manual operable or electrically rolled vents. The insulated glass segmented barrel vault (right) runs the length of the house. (O'Keefe's Inc., San Francisco. Circle 191 on information card.)



Computer Terminal Turntable.

System 2Plus terminal turntable, available in 18x18- and 18x27-inch sizes to accommodate most standard hardware, rotates 355 degrees to enable sharing in side-to-side or back-to-back work areas. The turntable has a cable access hole with grommet, T-molded edges and is available with oak, walnut, putty, or gray laminates. (Panels Concepts, Santa Ana, Calif. Circle 180 on information card.)

Computer System.

Spectra workstation system by Bruning-CAD includes a 19-inch color monitor mounted on a movable arm above the work surface, a modular keyboard, a dual disc drive, a rollaway computer pod, and a disc storage drawer. The system is compatible with all BruningCAD systems and is expandable into large networks. (BruningCAD, Tulsa, Okla. Circle 174 on information card.)

Radiant Ceiling System.

SunComfort radiant heating panels are constructed of 5/8-inch fire rated gypsum board with embedded heating cables and are installed as part of a gypsum drywall ceiling. Panels, available in four sizes, are controlled by standard line or low voltage wall thermostats. (Aztech International, Albuquerque, N.M. Circle 187 on information card.)

Skylight Blinds.

Skyblind by APC Corporation, made of metallic coated fabric, is designed to reflect light and heat and insulate against heat loss. It can be installed inside the skylight frame, below the skylight, or at ceiling level. (APC Corporation, Hawthorne, N.J. Circle 172 on information card.)

Structural Infill Panels.

Thermal-Impac insulated panels are constructed with an expanded polystyrene core and steel wire trusses on both facing. A plaster finish is applied to the inside and outside and a finishing stain is applied to the exterior. Panels are designed to accept a number of exterior surfacings including thin brick veneer, tile, and sand. Finishes can be applied either on-site or before installation. (Covington Technologies, Irvine, Calif. Circle 186 on information card.) □

Building Board.

Asbestos-free Ultra-Board, designed for ceiling lining, insulation panels, partitions, soffits, and infill panels, is made of cement bonded with cellulose and organic fibers. It is available in 4x8- and 4x10-foot sheets in four thicknesses. (Brit-Am, Middlesex, N.J. Circle 181 on information card.)

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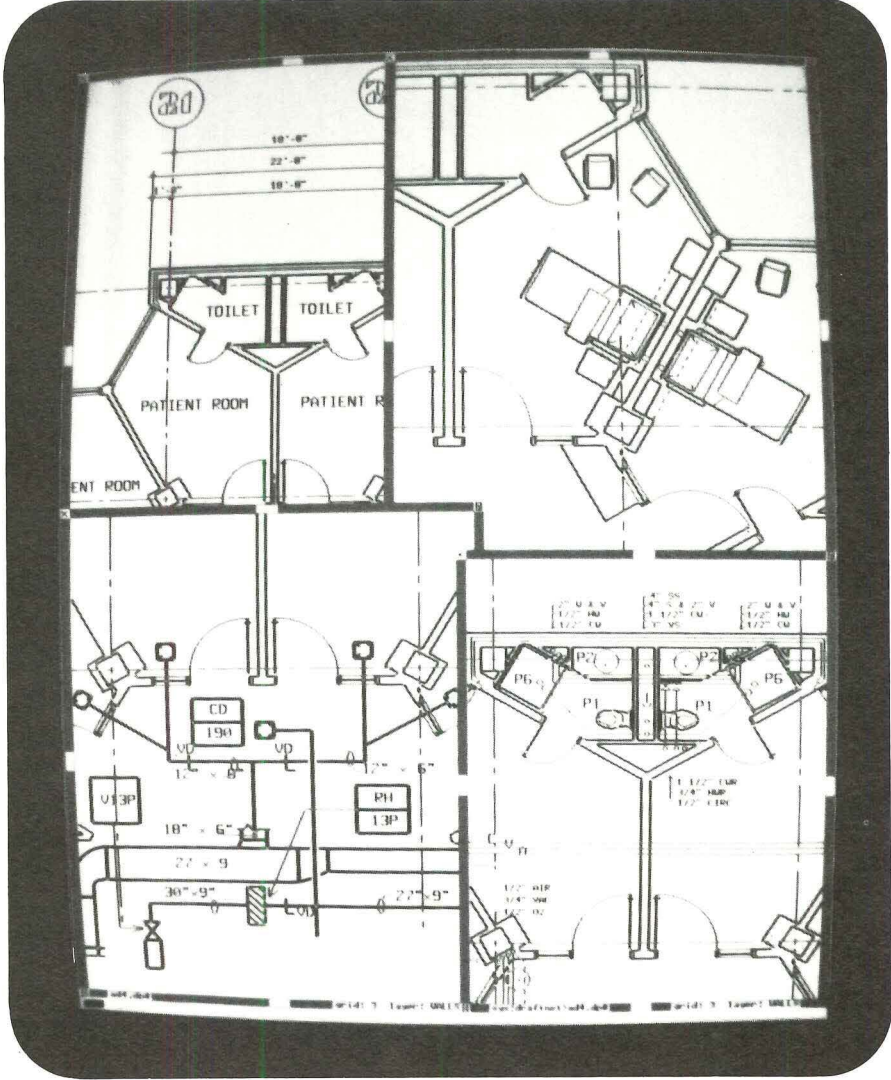
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Circle 57 on information card

esumé des Articles Principaux

ifornia's "Humane" State Offices.

Page 56: En 1975, l'Etat de Californie a commencé, dans la capitale, Sacramento, la construction d'immeubles administratifs gouvernementaux à dimension humaine et voués à diverses activités sociales. L'économie d'énergie et la convivialité en étaient les deux idées directrices. Le programme était placé sous la responsabilité de deux architectes de l'Etat de Californie, Sim Van der Ryn et son successeur, Barry Wassermann, FAIA. Aujourd'hui quatre immeubles de bureaux gouvernementaux sont construits dans le quartier du Parlement et quatre autres sont répartis dans d'autres régions de l'Etat.

Ventura Coastal Corp. Buildings.

Page 64: Le bâtiment principal abritant les bureaux de la firme Ventura Coastal Corporation à Ventura, Calif., montre qu'il est possible d'économiser de l'énergie sans dommage pour l'esthétique générale et pour le coût global. Grâce à l'utilisation particulière des formes et des matériaux à l'extérieur comme à l'intérieur du bâtiment, les architectes Smussen & Ellingwood ont pu diminuer de façon importante la consommation d'énergie en recourant aux propriétés de la lumière naturelle.

Édification de l'École d'Horticulture.

Page 68: Le Centre éducatif de New Britain, Conn., consacré à la nature, a été construit récemment selon les plans des architectes Buchanan/Watson. La conception du Centre fait appel à une utilisation tantôt active, tantôt passive, du soleil; c'est ainsi que l'eau, chauffée par le soleil, passe dans les parterres, favorisant le développement des plantes à la fois; des écrans tamisent la lumière pour diminuer la chaleur solaire; la ventilation se fait naturellement, et des accotements de terre ont été aménagés: ces dispositifs conviennent fort bien à l'environnement végétal, comme aux humains.

Siège de la Compagnie de Télévision.

Page 71: Dessiné par l'architecte de Cleveland, Richard Fleischman, ce bâtiment abrite les locaux de direction et de production d'une compagnie de télévision par câble, ainsi que 75 véhicules de service. La moitié de la superficie totale, de 100000 pieds carrés, est prise par le garage. La ventilation naturelle est assurée par des ouvertures au niveau du toit où sont posées des lattes amovibles incurvées, qui réduit notablement le coût des équipements mécaniques. Ces mêmes ouvertures permettent le chauffage et l'éclairage des bureaux.

Essex Dorsey Senior Center.

Page 74: Ce bâtiment sans prétention, situé dans une banlieue ouvrière à l'Est de la ville de Baltimore, est un centre destiné aux personnes âgées: il propose, sur 13,000 pieds carrés, des lieux d'activités sociales et récréatives. La firme Paul Partnership, à partir de deux écoles abritant deux salles de classe chacune, vieilles de 80 ans, a construit entre elles un bâtiment qui les relie; on a ajouté d'autre part une aile à l'arrière.

L'Hôpital Yukon-Kuskokwin.

Page 76: Dessiné par Caudill Rowlett Scott, cet hôpital de 95,000 pieds carrés est situé à Bethel, Alaska. Sa forme aérodynamique permet au vent de l'effleurer et d'éviter la formation des congères. La technique de construction, qui utilise des éléments d'acier préfabriqués adaptables à la structure métallique, a été choisie pour sa rapidité de montage et pour sa bonne résistance aux variations des températures intérieures et extérieures.

Six regards sur les années 60.

Page 80: L'écrivain James Shipsky, qui a reçu son éducation d'architecte au cours des turbulences des années 60, s'interroge sur les expériences durant cette période; il mesure leur influence sur ses propres conceptions de l'architecture et montre qu'il est demeuré, dans une bonne mesure, fidèle à ses idéaux. Shipsky a interrogé cinq autres architectes venus du même horizon sur leurs conceptions d'aujourd'hui et d'hier.

Corn Crib Country Retreat.

Page 88: Un entrepôt à maïs, situé sur une ferme d'Illinois, construit dans les années 30, a été transformé en une maison de retraite par les Architectes Bauhs & Dring de Chicago. Le bois de la structure d'origine a été nettoyé et verni; la coupole est devenue un observatoire. On a ajouté une salle où l'on a placé un tub pour les bains chauds.

La Résidence Donald.

Page 90: Une vieille ferme située dans les environs de Chicago a été redessinée par l'architecte Frederick Phillips de Chicago. Une salle à manger a été ajoutée au premier niveau, faisant un angle de 45 degrés avec la structure d'origine. Au second niveau, on a ajouté une chambre.

Maison de campagne californienne.

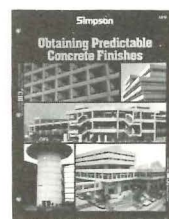
Page 92: Dutcher & Hanf, Architectes de Berkeley, Calif., ont dessiné cette maison pour un couple d'âge moyen qui

suite page 124

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Résumé debut de liste page 123
envisageait de lui donner l'allure d'une grange. A l'intérieur, le premier niveau est consacré aux pièces de séjour et de détente, tandis que les pièces de réception se trouvent au second niveau. Le dernier niveau offre un bon exemple de parti que l'on peut tirer d'une telle structure.

La Banque Citizen.

Page 94: Cette banque, située dans la petite ville de Milaca, Minn., a été conçue par le Bureau Wold Associates à Saint Paul. Bien que la ville ne soit guère riche en immeubles remarquables sur le plan architectural, la banque a bien su s'intégrer à l'environnement: les quatre façades trouvent chacune leur équilibre avec le paysage architectural environnant. L'ensemble tient son unité des éléments communs de la base, du niveau intermédiaire et du toit.

Centrale électrique de Fallasburg.

Page 96: Après une interruption d'activité dans les années 60 après plus d'un demi-siècle de services, cette centrale hydro-électrique de Lowell, Mich., fonctionne à nouveau grâce à Skidmore, Owings & Merrill, Chicago. Ce travail a supposé la restauration des bâtiments, la remise en état des stucs et la peinture des surfaces intérieures et extérieures avec des tons qui s'inspirent des couleurs originelles découvertes après décapage.

Resúmenes de Artículos Principales

Oficinas "humanas" de California.

Página 56: En 1975, el estado de California comenzó a echar los cimientos para la construcción de un centro de escala peatonal y socialmente diverso en la ciudad capital de Sacramento donde los edificios gubernamentales habían de ser ejemplos de conservación de energía y diseño humano. El programa se realizó bajo la dirección de dos arquitectos estatales, Sim Van der Ryn y su sucesor, Barry Wasserman, FAIA. Ahora, están concluidos en la zona de la capital cuatro edificios de oficinas estatales y cuatro más en otras localidades del estado.

Ventura Coastal Corp. Building.

Página 64: El edificio de la sede de la Ventura Coastal Corporation en Ventura, California, demuestra que pueden obtenerse ahorros en la energía sin sacrificar la imagen visual o el presupuesto. Mediante la manipulación de las formas y materiales exteriores e interiores, Rasmussen & Ellinwood Architects redujeron notablemente las necesidades de energía.

Edificio de formación hortícola.

Página 68: Esta nueva instalación docente

en el Centro de Ciencias Naturales de New Canaan, Conn., fue diseñada por empresa de arquitectos Buchanan/Watson. El edificio combina cierto número de estrategias de diseño solar activas y pasivas—tales como calentamiento del suelo donde crecen las plantas con agua calentada por la energía solar, pantallas de sombra para reducir el calor, ventilación natural y zanjas de saneamiento de la tierra—para proporcionar un ambiente apropiado tanto para las plantas como para las personas.

Sede de Viacom Cablevision.

Página 71: Este edificio, diseñado por el arquitecto de Cleveland Richard Fleiseman, alberga las oficinas administrativas y de producción de una empresa de televisión por cable y más de 75 vehículos de servicio. La ventilación natural se consigue con controles curvos de celosías en el techo, reduciendo así el costo de los sistemas mecánicos. En los espacios de oficina los controles de celosía también proporcionan calor y luz.

Essex Dorsey Senior Center.

Página 74: Este edificio funcional en una comunidad suburbana de la clase trabajadora en la zona oriental de Baltimore

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menzaron con un par de escuelas de
s habitaciones, construidas hace 80
os, las unieron con una nueva cons-
cción y les añadieron una nueva ala
la parte posterior. Entre las influencias
d diseño figuran la arquitectura ver-
cula sueca y japonesa y la disposición
luz natural en la nueva construcción.

Hospital Yukon-Kiskokwin.

Página 76: Este hospital de 95,000 pies
cuadrados, diseñado por Caudill Rowlett
Kott, está situado en Bethel, Alaska. Su
forma aerodinámica permite al viento
pasar a su alrededor, evitando acumu-
lación de nieve. Se seleccionó la tecno-
logía de edificación a base de módulos
desmontables de acero prefabricado sobre
un armazón de acero para rápida erec-
ción y por su resistencia a las tensiones
debidas a las variaciones de la tempera-
tura interior-exterior.

Los años sesenta.

Página 80: El escritor James Shipky, que
recibió su formación arquitectónica
durante la turbulenta década de los se-
senta, nos ofrece sus propias experiencias
durante esos años, cómo influyeron en
su enfoque a la arquitectura y el grado
de fidelidad que ha conservado a sus
diseños. Shipky entrevistó a cinco perso-

nas más con antecedentes análogos y
dedicadas a la arquitectura, para deter-
minar sus percepciones entonces y ahora.

Corn Crib Country Retreat.

Página 88: Un granero de maíz en una
granja de Illinois, construido en los años
treinta, fue reconstruido hasta convertirlo
en una vivienda campestre por Bauhs &
Dring Architects, Chicago. La pared sur
perforada se protegió contra los elementos
insertando piezas de material acrílico en
los orificios. La madera original de la
estructura se limpió y acabó, la cúpula
se convirtió en mirador y se añadió una
sauna y terraza.

Residencia de Donald.

Página 90: Una vieja casa de campo en
las afueras de la zona metropolitana de
Chicago fue reconstruida por el arquitecto
de Chicago Frederick Phillips. La adición
contiene una sala de estar en el primer
piso, construida a un ángulo de 45 grados
con respecto a la estructura original. La
adición del segundo piso incluye un dor-
mitorio. Phillips respetó la masificación
original de la vivienda y el tratamiento
exterior en tanto empleó fenestraci3n
novel.

Casa de campo de California.

Página 92: Dutcher & Hanf Architects of
Berkeley, Calif., diseñó esta vivienda para
un matrimonio en su edad intermedia que

la concibió como un granero. El interior
presenta un primer piso tratado como
espacio privado mientras que el segundo
piso recibió las funciones públicas, per-
mitiendo que las funciones del piso
superior aprovecharan las características
de granero del edificio.

Citizen's Bank.

Página 94: Este banco en la pequeña
localidad de Milaca, Minn., fue diseñado
por Wold Associates, St. Paul. Aunque la
localidad no tiene muchos edificios de
significado arquitectónico, el banco
concorda con su contexto en una forma
equitativa e inteligente, cada una de sus
cuatro fachadas hace un gesto contextual,
y el conjunto está unido por los elementos
comunes de la base, parte intermedia y
parte superior, y su plan de colores con
tonalidades de la tierra.

Planta hidroeléctrica de Fallasburg.

Página 96: Esta planta hidroeléctrica de
Lowell, Mich., abandonada en los años
sesenta después de más de medio siglo
de servicio, fue restaurada a su función
original por Skidmore, Owings, & Merrill,
de Chicago. Las obras incluyeron repa-
ración, reestucado y pintura del interior
y exterior en colores basados en los en-
contrados después de quitar capas de
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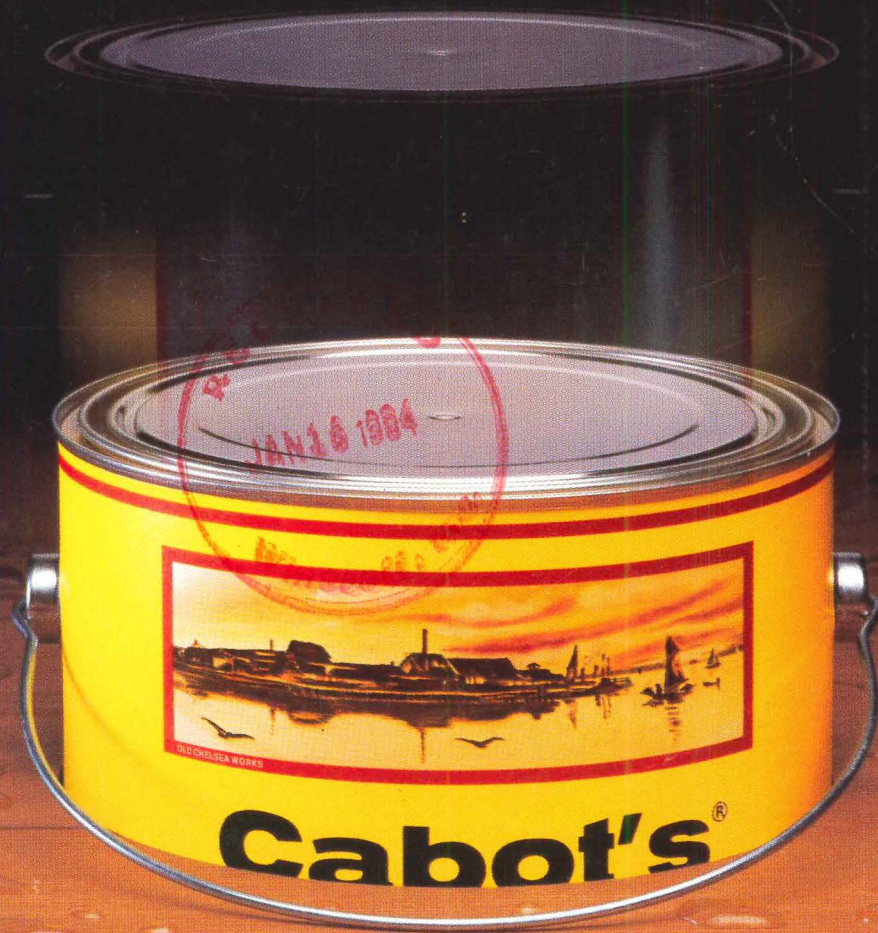
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